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I hereby give notice that a hearing by commissioners will be held on:

**Date:** Monday 21 to Thursday 24 August 2023  
Monday 28 to Thursday, 31 August 2023  
Monday 4 to Thursday, 7 September 2023  
Monday 11 to Thursday, 14 September 2023

**Time:** 9.30am

**Venue:** TBC

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**HEARING REPORT – VOLUME ONE**

**FIVE NOTICES OF REQUIREMENT**

**AIRPORT TO BOTANY BUS RAPID TRANSIT**

**CORRIDOR**

**THE SUPPORTING GROWTH ALLIANCE**  
**(AUCKLAND TRANSPORT AND WAKA KOTAHI**  
**NZ TRANSPORT AGENCY)**

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**COMMISSIONERS**

**Chairperson** David Wren  
**Commissioners** Alan Pattle  
Basil Morrison

Bevan Donovan  
KAITOHUTOHU WHAKAWĀTANGA  
HEARINGS ADVISOR

Telephone: 09 890 8056 or 021 325 837  
Email: [bevan.donovan@aucklandcouncil.govt.nz](mailto:bevan.donovan@aucklandcouncil.govt.nz)  
Website: [www.aucklandcouncil.govt.nz](http://www.aucklandcouncil.govt.nz)

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**Note:** The reports contained within this document are for consideration and should not be construed as a decision of Council. Should commissioners require further information relating to any reports, please contact the hearings advisor.

## **WHAT HAPPENS AT A HEARING**

### **Te Reo Māori and Sign Language Interpretation**

Any party intending to give evidence in Māori or NZ sign language should advise the hearings advisor at least ten working days before the hearing so a qualified interpreter can be arranged.

### **Hearing Schedule**

If you would like to appear at the hearing please return the appearance form to the hearings advisor by the date requested. A schedule will be prepared approximately one week before the hearing with speaking slots for those who have returned the appearance form. If changes need to be made to the schedule the hearings advisor will advise you of the changes.

Please note: during the course of the hearing changing circumstances may mean the proposed schedule may run ahead or behind time.

### **Cross Examination**

No cross examination by the requiring authority or submitters is allowed at the hearing. Only the hearing commissioners are able to ask questions of the requiring authority or submitters. Attendees may suggest questions to the commissioners and they will decide whether or not to ask them.

### **The Hearing Procedure**

The usual procedure for a hearing is:

- **the chairperson** will introduce the commissioners and will briefly outline the hearing procedure. The Chairperson may then call upon the parties present to introduce themselves. The Chairperson is addressed as Madam Chair or Mr Chairman.
- The Requiring Authority (the applicant) will be called upon to present their case. The Requiring Authority may be represented by legal counsel or consultants and may call witnesses in support of the application. After the Requiring Authority has presented their case, members of the hearing panel may ask questions to clarify the information presented.
- **Submitters** (for and against the application) are then called upon to speak. Submitters' active participation in the hearing process is completed after the presentation of their evidence so ensure you tell the hearing panel everything you want them to know during your presentation time. Submitters may be represented by legal counsel or consultants and may call witnesses on their behalf. The hearing panel may then question each speaker.
  - Late submissions: The council officer's report will identify submissions received outside of the submission period. At the hearing, late submitters may be asked to address the panel on why their submission should be accepted. Late submitters can speak only if the hearing panel accepts the late submission.
  - Should you wish to present written evidence in support of your submission please ensure you provide the number of copies indicated in the notification letter.
- **Council Officers** will then have the opportunity to clarify their position and provide any comments based on what they have heard at the hearing.
- The **requiring authority** or their representative then has the right to summarise the application and reply to matters raised. Hearing panel members may ask further questions. The requiring authority's reply may be provided in writing after the hearing has adjourned.
- **The chairperson** will outline the next steps in the process and adjourn or close the hearing.
- The hearing panel will make a recommendation to the Requiring Authority. The Requiring Authority then has 30 working days to make a decision and inform council of that decision. You will be informed in writing of the Requiring Authority's decision, the reasons for it and what your appeal rights are.

**FIVE NOTIFIED NOTICES OF REQUIREMENT TO THE AUCKLAND COUNCIL UNITARY PLAN BY THE SUPPORTING GROWTH ALLIANCE (AUCKLAND TRANSPORT AND WAKA KOTAHI NZ TRANSPORT AGENCY)**

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Trevor Mackie, Planner (consultant)

Reporting on proposed Notice of Requirements – see page 10 for full details.

**REQUIRING AUTHORITY:** THE SUPPORTING GROWTH ALLIANCE (AUCKLAND TRANSPORT AND WAKA KOTAHI NZ TRANSPORT AGENCY)

**VOLUME THREE** **1135 - 1146**

<b>SUBMITTERS - NOR 1 - BUS RAPID TRANSIT - BOTANY TO RONGOMAI PARK (AUCKLAND TRANSPORT):</b>	
Page 1147	Xu Yajun
Page 1149	Kawaljeet Singh
Page 1151	Litao Chen
Page 1153	Eddie Cheok
Page 1155	Balwinder Singh
Page 1156	Ugan Naidoo
Page 1157	Roger Dundang
Page 1158	P Thambirajah & T Paskaranandavadivel
Page 1160	Kamlesh Rana & 33 Signatories

Page 1199	BPG Developments Limited
Page 1205	Mr Aisea Sasalu
Page 1207	Theresa Tusa
Page 1209	Vanessa Phillips
Page 1263	Huaxiu Wang
Page 1265	Tanaz and Rustom Turel
Page 1270	Kathleen Waller
Page 1272	Danny Charanjit Singh
Page 1276	Rajnish Kalsi
Page 1278	Kindercare Learning Centres Limited
Page 1311	Mr Modher Adnan Abdulrazak Barakat and Mrs Yessar Ahmed Ali Barakat
Page 1319	National Mini Storage Limited
Page 1324	Anil Rodrigues
Page 1326	Business East Tamaki
Page 1330	Samir Chalabi
Page 1333	Taruna and Saurabh Tiwary
Page 1335	Heather Haylock
Page 1385	TIM Nominees Limited and The Saint Johns College Trust Board
Page 1409	Phisan Charoenmongkhonwilai
Page 1411	Samantha Searle
Page 1413	Paul Reyneke
Page 1467	Matthew Cheeseman
Page 1521	Maureen Irwin
Page 1575	Laura Unasa
Page 1629	Emerson Cheeseman
Page 1683	Tasman Accounting trustee Ltd
Page 1687	Jamie Khang Nguyen
Page 1691	Heritage New Zealand Pouhere Taonga
Page 1694	Mohammad Meraj
Page 1696	Kim Bloom
Page 1698	Telecommunications Submitters
Page 1705	Kāinga Ora Homes And Communities
Page 1730	Watercare Services Limited
Page 1734	Ministry of Education - Te Tāhuhu o te Mātauranga
Page 1738	Selemena Afamasaga
Page 1739	Paul Street, on behalf of Street Properties Limited.
Page 1741	Te Akitai Waiohua Waka Taua Trust

**LATE SUBMITTERS NOR 1 - BUS RAPID TRANSIT - BOTANY TO RONGOMAI PARK (AUCKLAND TRANSPORT):**

Page 1743	East Tamaki Investments Limited
Page 1752	Beale Partnership
Page 1759	Howard Property Limited
Page 1768	Ormiston Centre Ltd

**VOLUME FOUR**

**1773 - 1784**

**SUBMITTERS - NOR 2 - NOTICE OF REQUIREMENT: RONGOMAI PARK TO PUHINUI STATION (IN THE VICINITY OF PLUNKET AVENUE) (AUCKLAND TRANSPORT):**

Page 1785	Josh Tiro
Page 1787	Pengxiang Huang
Page 1789	Neha Singh
Page 1791	Ram Chandar
Page 1792	Manjinder Singh Birk
Page 1793	Rawandeep Kaur
Page 1794	Lokesh Gera
Page 1795	Monish Anish Prasad
Page 1797	SPG Manukau Limited
Page 1825	Jude Manoharan
Page 1827	Maki Joseph-Tereroa and Makea-Rupe Tereroa
Page 1829	Lynette Henderson
Page 1831	Duncan and Sandra Loudon
Page 1837	Simran Krishna
Page 1839	Aneeta Krishna
Page 1841	Ashok Krishna
Page 1843	Murdoch Newell Management Limited
Page 1854	The Legends Property Limited
Page 1859	Kamlesh Rana & 33 Signatories
Page 1898	Ormiston Centre Ltd
Page 1901	Renaissance Apartments Body Corporate 316863
Page 1906	Auckland University of Technology
Page 1914	Minister of Education
Page 1921	BPG Developments Limited
Page 1926	Ben Schollitt
Page 1928	Savitri Devendra
Page 1930	Aaron Chand

Page 1932	Dannie Ha
Page 1934	Australasia Branch Office of Jehovah's Witnesses
Page 1935	Reena Rani
Page 1937	Risha Kumar
Page 1939	Ramon Lopez
Page 1940	Alice Anne Lopez
Page 1941	John Isaac Subhashni Devi Sadd
Page 1942	Simran Krishna
Page 1944	Minakshi Mohanlal
Page 1946	Avisha Mohanlal
Page 1948	Business Manukau
Page 1959	Kmart NZ Holdings Limited
Page 1962	Van Den Brink 652 Limited
Page 1968	A.M. Self Limited
Page 1974	Sandeep Kumar
Page 1976	McAlvin Sembrano
Page 1978	Scentre (New Zealand) Limited
Page 1980	Z Energy Limited
Page 1987	Bunnings Limited
Page 1990	Chalmers Properties Ltd
Page 1993	Fa'ana Campbell
Page 1998	PSPIB/CPPIB Waiheke Inc
Page 2001	Auckland Body Corporate Limited
Page 2005	General Distributors Limited
Page 2008	JOLT Charge (New Zealand) Limited
Page 2011	Heather Haylock
Page 2061	Harvey Norman Properties NZ Ltd and Harvey Norman Stores Pty NZ Ltd
Page 2073	Kotare Trust
Page 2074	Mitre 10 Holdings Limited
Page 2080	Phisan Charoenmongkhonwilai
Page 2081	Mr Martyn Chalmers and Mrs Nurhayati Chalmers
Page 2090	Centuria Capital (NZ) Limited
Page 2097	Joo Han Song
Page 2099	Su Me Lee
Page 2101	Vaine Tutai Richard
Page 2103	Christian Lewis Sims
Page 2105	Danny Charanjit Singh
Page 2114	Mr Shane Robert Haylock

Page 2119	Heritage New Zealand Pouhere Taonga
Page 2122	Puhinui School
Page 2125	Abhisekh Mohanlal
Page 2127	Avisha Mohanlal
Page 2131	Roy Sembrano
Page 2137	Andrea Mead & Dr Stephanie Mead
Page 2142	Eke Panuku Development Auckland
Page 2153	Quadrant Properties Ltd
Page 2156	Arena Williams MP
Page 2171	Telecommunications Submitters - Chris Horne
Page 2178	Kāinga Ora Homes And Communities
Page 2203	Watercare Services Limited
Page 2207	Ministry of Education - Te Tāhuhu o te Mātauranga
Page 2211	Firdosh and Kashmira Siganporia
Page 2212	Selemena Afamasaga
Page 2213	Gordon Barthow
Page 2214	Te Akitai Waiohua Waka Taua Trust

**VOLUME FIVE**

**2218 - 2229**

**SUBMITTERS - NOR 3 - NOTICE OF REQUIREMENT: BUS RAPID TRANSIT – PUHINUI STATION (IN THE VICINITY OF PLUNKET AVENUE) TO SH20/20B INTERCHANGE (AUCKLAND TRANSPORT):**

Page 2230	Varinder
Page 2231	Karishma Pinter
Page 2233	Colin Brent Robinson
Page 2235	Parvinder singh
Page 2237	Ronil Prasad
Page 2239	Ganpat Patel
Page 2241	Bhavesbhai Ramanbhai Patel
Page 2243	Hsin Mila Cheung Tsai
Page 2251	Adelante Holdings
Page 2252	John Hansford
Page 2257	Kamlesh Rana & 33 Signatories
Page 2296	Birgitta Sherley Prom
Page 2298	Wiri Business Association Inc
Page 2308	Manukau Auto & Tyre Centre
Page 2309	Jasvinder Singh and Harmeet Kaur Sokhi

Page 2311	Lee mee THEN
Page 2312	Jehovah's Witnesses – Manukau Kingdom Hall Trust
Page 2313	Reena Rani
Page 2315	Michelle Joy Te Hira
Page 2320	KiwiRail Holdings Limited
Page 2322	Avisha Mohanlal
Page 2324	Minakshi Mohanlal
Page 2326	Anwar Ali Family Trust
Page 2329	Alex Herkes
Page 2330	Anahera Edmonds
Page 2333	Heather Haylock
Page 2389	Shane Robert Haylock
Page 2394	Puhinui School
Page 2397	Mr Rajesh Kumar Sachdeva & Sunita Sachdeva & Ripul Sachdeva
Page 2405	Abhisekh Mohanlal
Page 2407	Heritage New Zealand Pouhere Taonga
Page 2414	Quadrant Properties Ltd
Page 2417	Arena Williams MP
Page 2425	Telecommunications Submitters - Chris Horne
Page 2432	Kāinga Ora Homes And Communities
Page 2457	Watercare Services Limited
Page 2461	Ministry of Education - Te Tāhuhu o te Mātauranga
Page 2465	Te Akitai Waiohua Waka Taua Trust
Page 2466	Satnam Bhatt

**LATE SUBMITTERS NOR 3 - NOTICE OF REQUIREMENT: BUS RAPID TRANSIT – PUHINUI STATION (IN THE VICINITY OF PLUNKET AVENUE) TO SH20/20B INTERCHANGE (AUCKLAND TRANSPORT):**

Page 2470	Anita Singh & Ramandeep Singh
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**SUBMITTERS - NOR 4A - NOTICE OF REQUIREMENT: BUS RAPID TRANSIT - SH20/20B INTERCHANGE TO ORRS ROAD (AUCKLAND TRANSPORT):**

Page 2472	Tunicin Investments Limited and Airface Limited
Page 2478	Kamlesh Rana & 33 Signatories
Page 2517	Alan James Steele
Page 2520	Altrend Properties Limited
Page 2525	Avisha Mohanlal



Page 2531	Minakshi Mohanlal
Page 2533	New Zealand Storage Holdings Limited
Page 2539	Wiri Oil Services Limited (WOSL)
Page 2545	Heather Haylock
Page 2586	Phisan Charoenmongkhonwilai
Page 2587	Heritage New Zealand Pouhere Taonga
Page 2590	Abhisekh Mohanlal
Page 2592	Telecommunications Submitters - Chris Horne
Page 2599	Fernbrook Property Ltd
Page 2602	Kāinga Ora Homes And Communities
Page 2627	Watercare Services Limited
Page 2631	Ministry of Education - Te Tāhuhu o te Mātauranga
Page 2635	Auckland International Airport Limited
Page 2639	Te Akitai Waiohua Waka Taua Trust

**SUBMITTERS - NOR 4B - NOTICE OF REQUIREMENT: ALTERATION TO DESIGNATION 6717 STATE HIGHWAY 20B – STATE HIGHWAY 20 TO AUCKLAND INTERNATIONAL AIRPORT (WAKA KOTAHI NZ TRANSPORT AGENCY):**

Page 2642	Wendy Jane Rodger
Page 2644	Kamlesh Rana & 33 Signatories
Page 2683	Maya Krishna Goundar
Page 2684	Heather Haylock
Page 2725	Heritage New Zealand Pouhere Taonga
Page 2728	Telecommunications Submitters - Chris Horne
Page 2735	Fernbrook Property Ltd
Page 2738	Watercare Services Limited
Page 2742	Ministry of Education - Te Tāhuhu o te Mātauranga
Page 2746	Auckland International Airport Limited
Page 2750	Te Akitai Waiohua Waka Taua Trust

**LATE SUBMITTERS NOR 4B - NOTICE OF REQUIREMENT: ALTERATION TO DESIGNATION 6717 STATE HIGHWAY 20B – STATE HIGHWAY 20 TO AUCKLAND INTERNATIONAL AIRPORT (WAKA KOTAHI NZ TRANSPORT AGENCY):**

Page 2752	Altrend Properties Limited
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<b>LOCAL BOARD COMMENTS ON ALL NOR'S</b>	
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Page 2758	Howick Local Board
Page 2760	Otara Papatoetoe Local Board
Page 2766	Māngere-Ōtāhuhu Local Board

### **NoR 1 - Bus Rapid Transit - Botany to Rongomai Park (Auckland Transport)**

NoR lodged by Auckland Transport for a new designation to widen Te Irirangi Drive between Botany and Rongomai Park to provide for a Bus Rapid Transit corridor and walking and cycling facilities.

Key features of the proposal include:

- a dedicated Bus Rapid Transit corridor, centre-running along Te Irirangi Drive
- Bus Rapid Transit stations at Smales Road, Accent Drive, and Ormiston Road – Botany Junction Shopping Centre
- walking and cycling facilities on both sides of the corridor
- swales and wetlands
- areas for construction related activities including yards, site compounds, and bridge and structure works.

### **NoR 2 - Notice of Requirement: Rongomai Park to Puhinui Station (in the vicinity of Plunket Avenue) (Auckland Transport)**

NoR lodged by Auckland Transport for a new designation to widen a number of existing roads to provide for a Bus Rapid Transit corridor and walking and cycling facilities.

Key features of the proposal include:

- a dedicated Bus Rapid Transit corridor, centre-running for the majority of the corridor along Te Irirangi Drive, Great South Road, Ronwood Avenue, Manukau Station Road, Lambie Drive, and Puhinui Road. West-running on Davies Avenue along the edge of Hayman Park
- Bus Rapid Transit stations at Dawson Road, Diorella Drive, Ronwood Avenue, Manukau Station, and the corner of Lambie Drive and Puhinui Road Station.
- walking and cycling facilities on both sides of the corridor
- priority access for fire engine movements across the Bus Rapid Transit corridor at Papatoetoe Fire Station
- new signalised intersections at Mitre 10 and Bunnings Warehouse, Lambie Drive and Ronwood Avenue, and Puhinui Road and Plunket Avenue
- swales and wetlands
- areas for construction related activities including yards, site compounds, and bridge and structure works.

### **NoR 3 - Notice of Requirement: Bus Rapid Transit – Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange (Auckland Transport)**

NoR lodged by Auckland Transport for a new designation to widen the existing Puhinui Road between Plunket Avenue and east of the SH20/SH20B Interchange to provide for a Bus Rapid Transit corridor and walking and cycling facilities.

Key features of the proposal include:

- a dedicated Bus Rapid Transit corridor, centre-running along Puhinui Road connecting to the Puhinui Station concourse via a new Bus Rapid Transit bridge structure
- a Bus Rapid Transit station at Puhinui Station
- walking and cycling facilities on both sides of the corridor
- walking and cycling facilities will be provided along Cambridge Terrace, Bridge Street and Kenderdine Road
- wetland

- areas for construction related activities including yards, site compounds, and bridge and structure works.

**NoR 4a - Notice of Requirement: Bus Rapid Transit - SH20/20B Interchange to Orrs Road (Auckland Transport)**

NoR lodged by Auckland Transport for a new designation to widen Puhinui Road between the SH20/SH20B Interchange and Orrs Road to provide for a Bus Rapid Transit corridor and walking and cycling facilities.

Key features of the proposal include:

- a dedicated Bus Rapid Transit corridor, centre-running on Puhinui Road through to the Manukau Memorial Gardens intersection (approximately 600m west of SH20/SH20B Interchange); and south running to Orrs Road
- walking and cycling facilities on southern side of the corridor
- swales
- area for construction related activities including yards, site compounds, and bridge and structure works.

**NoR 4b - Notice of Requirement: Alteration to Designation 6717 State Highway 20B – State Highway 20 to Auckland International Airport (Waka Kotahi NZ Transport Agency)**

NoR lodged by Waka Kotahi NZ Transport Agency to alter Designation 6717 State Highway 20B - State Highway 20 to Auckland International Airport. The alteration is from the SH20/SH20B Interchange to Manukau Memorial Gardens.

Key features of the proposal include:

- to provide westbound lanes to Auckland Airport
- walking and cycling facilities
- a ramp from SH20B onto SH20 for southbound traffic while enabling a Bus Rapid Transit corridor.

**Notices of requirement (NoRs) under section 168 of the RMA by Auckland Transport for new designations for the Airport to Botany Bus Rapid Transit (NoRs A2B NoR1, A2B NoR2, A2B NoR3 and A2B NoR4A)**

**Notice of requirement under section 181(2) of the RMA by Waka Kotahi NZ Transport Agency for an Alteration to Designation 6717 for State Highway 20B – State Highway 20 to Auckland International Airport (A2B NoR4B)**

**To:** Hearing Commissioners

**From:** Trevor Mackie Consultant Planner

**Report date:** 31 May 2023

**Scheduled hearing date:** 21 August – 14 September 2023

**Notes:**

This report sets out the advice of the reporting planner.

This report has yet to be considered by the Hearing Commissioners delegated by Auckland Council (the council) to make recommendations to the requiring authorities.

The recommendations in this report are not the decisions on the notices of requirement.

Decisions on the notices of requirement will be made by the requiring authorities (Auckland Transport and Waka Kotahi NZ Transport Agency) after they have considered the Hearing Commissioners' recommendations, subsequent to the Hearing Commissioners having considered the notices of requirement and heard the requiring authorities and submitters.

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## Summary

Requiring authorities	Auckland Transport and Waka Kotahi NZ Transport Agency
Notices of requirement references	<ul style="list-style-type: none"> <li>• A2B NoR 1 Bus Rapid Transit – Botany to Rongomai Park (Auckland Transport) (<b>A2B NoR1</b>)</li> <li>• A2B NoR 2 Bus Rapid Transit – Rongomai Park to Puhinui Station (in the vicinity of Plunket Avenue) (Auckland Transport) (<b>A2B NoR2</b>)</li> <li>• A2B NoR 3 Bus Rapid Transit – Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange (Auckland Transport) (<b>A2B NoR3</b>)</li> <li>• A2B NoR 4A Bus Rapid Transit – SH20/20B Interchange to Orrs Road (Auckland Transport) (<b>A2B NoR4A</b>)</li> <li>• A2B NoR 4B Alteration to Designation 6717 State Highway 20B – State Highway 20 to Auckland International Airport (Waka Kotahi NZ Transport Agency) (<b>A2B NoR4B</b>)</li> </ul>
Resource consent applications	No resource consent applications have been lodged by the requiring authorities for this project.
Reporting planner	Trevor Mackie, Consultant Planner, Central and South Planning

Site address	Refer to Attachment B to the Form 18 documents. The alignment of the A2B NoRs extends from near Botany Metropolitan Centre to Orrs Road adjacent to Auckland International Airport. It is comprised of NoR1 - Te Irirangi Drive (from Leixlep Lane near Botany Town Centre to Rongomai Park); NoR2 – Te Irirangi Drive (from Rongomai Park to Great South Road) and Great South Road (from Te Irirangi Drive to Ronwood Avenue intersection) and Ronwood Avenue (between Great South Road intersection and Davies Avenue) and Davies Avenue (between Ronwood Avenue and Manukau Station Road) and Manukau Station Road (between Davies Avenue and Lambie Drive) and Lambie Drive (between Manukau Station Road and Puhinui Road) and Puhinui Road (between Lambie Drive and Plunket Avenue); NoR3 - Puhinui Road (between Plunket Avenue and east of SH20/SH20B interchange); NoR4A - Puhinui Road / SH20B (from east of SH20/SH20B interchange to Orrs Road); and NoR4B - SH20 and SH20B (from east of SH20/SH20B interchange to Orrs Road along Puhinui Road / SH20B)	
Lodgement date	9 December 2022	
Notification date	10 March 2023	
Submissions close date	11 April 2023	
Number of submissions received	<b>NoR</b>	<b>Submissions</b>
	A2B NoR1	49
	A2B NoR2	82
	A2B NoR3	39
	A2B NoR4A	19
	A2B NoR4B	11

Report prepared by:



Trevor Mackie

Date:

31 May 2023

Reviewed and  
approved for release  
by:



Marc Dendale

Date:

31 May 2023

## Notices of Requirement

The components of the report relating to the notices of requirement have been prepared by the reporting planner Trevor Mackie.

I hold the degrees of Bachelor of Architecture (Hons) from Victoria University of Wellington (1982) and Bachelor of Town Planning from University of Auckland (1987). I worked in architecture and development feasibility planning from 1982 until 1990. I have practised in town planning, resource management and urban design since 1990. I was Urban Design Planner at North Shore City Council for ten years, and Manager of Environmental Planning Policy there from 2000 until 2010. From 2011 until June 2022 I was a planning and urban design consultant with Hill Young Cooper Ltd, a resource management consultancy. Since June 2022, I have been a sole consultant and hearings commissioner.

I am a member of the Resource Management Law Association.

At North Shore City Council, I prepared district plan policy and zone provisions for intensive residential zones, the heritage character areas of Devonport, Northcote Point and Birkenhead Point, and historic heritage schedules and policy for the district plan. I worked on notices of requirement for the Northern Busway and its stations, expansion of the North Shore Wastewater Treatment Plant and its discharge tunnel and ocean outfall, State Highway 18, and new roads and road widenings for arterial roads. As Manager of Environmental Planning Policy, I had the responsibility of processing notices of requirement lodged with the Council.

For the Auckland Unitary Plan, I prepared policy on various topics for the Council, and evidence on significant infrastructure, special purpose – school and tertiary education facilities zones, local public viewshaft protection, height controls for business zones, and precincts.

In 2013 and 2014, I was Friend of Submitters on the Puhoi to Warkworth Motorway project before a Board of Inquiry. I was the s42A reporting planner on the Infrastructure chapters of the Proposed Waikato District Plan in 2020 and 2021.

I completed the Ministry for the Environment Making Good Decisions programme in 2009, and have been an independent hearing commissioner since 2014, on hearings for resource consents, plan changes and notices of requirement. I was the Auckland Council nominated Hearing Commissioner on the consent under COVID-19 Recovery (Fast-track Consenting) Act 2020 for Ryman Retirement Village in Kohimarama.

I have read the Code of Conduct for Expert Witnesses outlined in the Environment Court's Practice Note 2023 and have complied with it in preparing this report. I also agree to follow the Code at the hearing. I confirm that the issues addressed in this report are within my area of expertise and that I have not omitted to consider material facts known to me that might alter or detract from my opinions.

I visited the site in a group bus tour on 11 October 2022 and have since revisited the site and adjacent properties by car and partially on foot on three additional occasions up to 23 May 2023.

## Abbreviations

<b>AArbE</b>	Assessment of Arboricultural Effects
<b>AArchE</b>	Assessment of Archaeological Effects
<b>AEE</b>	Assessment of Effects on the Environment (this Report)
<b>AEcE</b>	Assessment of Ecological Effects
<b>AFE</b>	Assessment of Flooding Effects
<b>AT</b>	Auckland Transport
<b>ATAP</b>	Auckland Transport Alignment Project
<b>ATE</b>	Assessment of Transport Effects
<b>ARI</b>	Average Recurrence Interval
<b>AUP:OP</b>	Auckland Unitary Plan: Operative in Part
<b>AUT</b>	Auckland University of Technology
<b>BRT</b>	Bus Rapid Transit
<b>CCRA</b>	Climate Change Response Act 2022
<b>CEMP</b>	Construction Environmental Management Plan
<b>CNVMP</b>	Construction Noise and Vibration Management Plan
<b>CPTED</b>	Crime Prevention through Environmental Design
<b>CTMP</b>	Construction Traffic Management Plan
<b>CVA</b>	Cultural Values Assessments
<b>DRMP</b>	Development Response Management Plan
<b>EclAG</b>	Ecological Impact Assessment Guidelines
<b>EMP</b>	Ecological Management Plan
<b>ERP</b>	Emissions Reduction Plan
<b>FENZ</b>	Fire and Emergency New Zealand
<b>FULSS</b>	Future Urban Land Supply Strategy
<b>FUZ</b>	Future Urban Zone
<b>GHG</b>	Greenhouse Gas Emissions
<b>GPS</b>	Government Policy Statement
<b>GRPA</b>	Government Rooding Powers Act 1989
<b>HHMP</b>	Historic Heritage Management Plan
<b>HNZPT / Heritage NZ</b>	Heritage New Zealand Pouhere Taonga
<b>HNZPT Act</b>	Heritage New Zealand Pouhere Taonga Act
<b>KO</b>	Kāinga Ora Homes and Communities
<b>KiwiRail</b>	KiwiRail Holdings Limited
<b>LG(AC)A</b>	Local Government (Auckland Council) Act 2009
<b>LNRS</b>	Low Noise Road Surface
<b>LTA</b>	Land Transport Act 1998
<b>LTMA</b>	Land Transport Management Act 2003
<b>LEA</b>	Landscape Effects Assessment
<b>MCA</b>	Multi-Criteria Assessment
<b>MDRS</b>	Medium Density Residential Standards
<b>MIT</b>	Manukau Institute of Technology
<b>MPD</b>	Maximum Probable Development
<b>N/A</b>	Not Applicable
<b>NES</b>	National Environmental Standard
<b>NES:FW</b>	Resource Management (National Environmental Standards for Freshwater) Regulations 2020
<b>NIMT</b>	North Island Main Trunk railway track
<b>NLTF</b>	National Land Transport Fund
<b>NLTP</b>	National Land Transport Programme
<b>NoR</b>	Notice of Requirement
<b>A2B NoRs</b>	The five A2B NoRs
<b>A2B NoR1</b>	Notice of Requirement 1: Airport to Botany Bus Rapid Transit (Botany Town Centre to Rongomai Park)
<b>A2B NoR2</b>	Notice of Requirement 2: Airport to Botany Bus Rapid Transit (Rongomai Park to Puhinui Station, in the vicinity of Plunket Avenue)

<b>A2B NoR3</b>	Notice of Requirement 3: Airport to Botany Bus Rapid Transit (Puhinui Station, in the vicinity of Plunket Avenue, to SH20/20B Interchange)
<b>A2B NoR4A</b>	Notice of Requirement 4A: Airport to Botany Bus Rapid Transit (SH20/20B Interchange to Orrs Road)
<b>A2B NoR4B</b>	Notice of Requirement 4B: Alteration to NZ Transport Agency Designation 6717 – State Highway 20B
<b>NPS</b>	National Policy Statement
<b>NPS:FM</b>	National Policy Statement on Freshwater Management
<b>NPS:UD</b>	National Policy Statement on Urban Development
<b>NUMP</b>	Network Utility Management Plan
<b>PPFs</b>	Protected premises and facilities
<b>Programme partners</b>	Te Ākitai Waiohū, Auckland Airport, Auckland Transport and Waka Kotahi
<b>RCA</b>	Road Controlling Authority
<b>RLTP</b>	Auckland Regional Land Transport Plan
<b>RMA</b>	Resource Management Act 1991
<b>RMAA</b>	Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021
<b>RP</b>	Regional Plan
<b>RPS</b>	Regional Policy Statement
<b>RTN</b>	Rapid Transit Network
<b>SCEMP</b>	Stakeholder and Communication Engagement Management Plan
<b>SEA</b>	Significant Ecological Area
<b>SH1</b>	State Highway 1
<b>SH20</b>	State Highway 20
<b>SH20B</b>	State Highway 20B
<b>SIA</b>	Social Impact Assessment
<b>SSBC</b>	Single Stage Business Case
<b>SSTMP</b>	Site-Specific Traffic Management Plan
<b>SWGPP</b>	Southwest Gateway Programme
<b>TTN</b>	Te Tupu Ngātahi Supporting Growth
<b>ULDMP</b>	Urban and Landscape Design Management Plan
<b>UDE</b>	Urban Design Evaluation
<b>WKNZTA</b>	Waka Kotahi NZ Transport Agency

# 1 Introduction

## 1.1 The notices of requirement

Pursuant to section 168 of the RMA, Auckland Transport ('AT') as the requiring authority, has lodged notices of requirement (**NoRs**) for four new designations in the Auckland Unitary Plan (Operative in Part) (**AUP**) for the Airport to Botany Bus Rapid Transit. They are A2B NoR1 Bus Rapid Transit – Botany to Rongomai Park (Auckland Transport) (**A2B NoR1**); A2B NoR2 Bus Rapid Transit – Rongomai Park to Puhinui Station (in the vicinity of Plunket Avenue) (Auckland Transport) (**A2B NoR2**); A2B NoR3 Bus Rapid Transit – Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange (Auckland Transport) (**A2B NoR3**); and A2B NoR4A Bus Rapid Transit – SH20/20B Interchange to Orrs Road (Auckland Transport) (**A2B NoR4A**).

Pursuant to section 181(2) of the RMA, Waka Kotahi NZ Transport Agency ('**WKNZTA**') as the requiring authority for State Highway 20 and State Highway 20B, has lodged a notice of requirement (**NoR**) for an alteration to Designation 6717 for State Highway 20B – State Highway 20 to Auckland International Airport (**A2B NoR4B**)

The A2B NoRs are part of a wider package of notices of requirement sought by the Supporting Growth Alliance now known as Te Tupu Ngātahi Supporting Growth ('**Te Tupu Ngātahi**') on behalf of Waka Kotahi NZ Transport Agency and Auckland Transport and by the Eastern Busway Alliance ('**ÉBA**') on behalf of Auckland Transport for a bus rapid transit from Panmure to Auckland International Airport. The A2B NoRs seek to route protect for a bus rapid transit strategic transport corridor from Botany Town Centre to Orrs Road adjacent to Auckland International Airport.

The A2B NoRs (also collectively referred to as '**the Project**') are described in Table 1 below.

<b>Notice</b>	<b>Description</b>	<b>Requiring Authority</b>
<b>A2B NoR1</b>	Widening of the existing Te Irirangi Drive between Botany Metropolitan Centre and Rongomai Park to provide for a Bus Rapid Transit corridor and high quality walking and cycling facilities.	Auckland Transport
<b>A2B NoR2</b>	Widening of the following existing roads to provide for a Bus Rapid Transit corridor and high quality walking and cycling facilities: <ul style="list-style-type: none"><li>• Te Irirangi Drive (between Rongomai Park and SH1)</li><li>• Great South Road (between SH1 and Ronwood Avenue intersection)</li><li>• Ronwood Avenue (between Great South Road intersection and Davies Avenue)</li><li>• Davies Avenue (between Ronwood Avenue and Manukau Station Road)</li><li>• Manukau Station Road (between Davies Avenue and Lambie Drive)</li><li>• Lambie Drive (between Manukau Station Road and Puhinui Road)</li><li>• Puhinui Road (between Lambie Drive and Plunket Avenue)</li></ul>	Auckland Transport

<b>A2B NoR3</b>	Widening of the existing Puhinui Road between Plunket Avenue and east of the SH20/20B Interchange, including a BRT bridge connecting to Puhinui Station. This widening will provide for a Bus Rapid Transit corridor and high quality walking and cycling facilities. Widening is also proposed for Cambridge Terrace, Bridge Street and Kenderdine Road to provide for high quality walking and cycling facilities	Auckland Transport
<b>A2B NoR4A</b>	Extension of Puhinui Road between the SH20/20B Interchange and Orrs Road to provide for a Bus Rapid Transit corridor and high quality walking and cycling facilities.	Auckland Transport
<b>A2B NoR4B</b>	Widening of SH20B corridor between the SH20/20B interchange and the intersection of Manukau Memorial Gardens. This is an alteration to the existing Waka Kotahi Designation 6717 to provide westbound lanes to Auckland Airport, high quality walking and cycling facilities and a ramp from SH20B onto SH20 for southbound traffic while enabling the provision of a Bus Rapid Transit corridor.	Waka Kotahi NZ Transport Agency

**Table 1: Description of A2B package of NoRs**

## 1.2 Locality plan

The general location of the A2B NoRs is shown on **Figure 1** below. The reader is also referred to the General Arrangement Plans supporting the NoRs which outline the extent of the existing designations, the extent of the NoRs and the general nature of the proposed works.





Figure 1: Location of A2B Bus Rapid Transit NoRs

### 1.3 Notice of requirement documents

The lodged A2B NoRs consist of the following documents:

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01\_Airport to Botany - Form 18 - NoR 1  
02\_Airport to Botany -Form 18 - NoR 2  
03\_Airport to Botany - Form 18 - NoR 3  
04\_Airport to Botany - Form 18 - NoR 4a  
05\_Airport to Botany - Form 18 - NoR 4b  
06\_Airport to Botany - Assessment of Effects on the Environment  
07\_Airport to Botany - General Arrangement Plan - NoR 1  
08\_Airport to Botany - General Arrangement Plan - NoR 2  
09\_Airport to Botany - General Arrangement Plan - NoR 3  
10\_Airport to Botany - General Arrangement Plan - NoR 4a  
11\_Airport to Botany - General Arrangement Plan - NoR 4b  
12\_Airport to Botany - Assessment of Transport Effects  
13\_Airport to Botany - Assessment of Arboricultural Effects  
14\_Airport to Botany - Landscape Effects Assessment Part 1 of 3  
14\_Airport to Botany - Landscape Effects Assessment Part 2 of 3  
14\_Airport to Botany - Landscape Effects Assessment Part 3 of 3  
15\_Airport to Botany - Social Impact Assessment  
16\_Airport to Botany - Urban Design Evaluation - Part 1 of 6  
16\_Airport to Botany - Urban Design Evaluation - Part 2 of 6  
16\_Airport to Botany - Urban Design Evaluation - Part 3 of 6  
16\_Airport to Botany - Urban Design Evaluation - Part 4 of 6  
16\_Airport to Botany - Urban Design Evaluation - Part 5 of 6  
16\_Airport to Botany - Urban Design Evaluation - Part 6 of 6  
17\_Airport to Botany - Assessment of Flooding Effects  
18 Airport to Botany – Assessment of Construction Noise and Vibration Effects  
19\_Airport to Botany - Assessment of Traffic Noise Effects  
20\_Airport to Botany - Assessment of Ecological Effects  
21\_Airport to Botany - Assessment of Archaeological Effects  
22\_Airport to Botany - Assessment of Built Heritage Effects  
Airport to Botany NoR Lodgement Cover Letter 2022-12-09  
Updated conditions w s92response Feb

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Given the large quantum of information supporting the NoRs, it has not been attached to this report. Instead, the information on the five A2B NoRs can be found on the Auckland Council website: Notices of Requirement to designate land web page:

<https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/unitary-plan/auckland-unitary-plan-modifications/notices-of-requirement-to-designate-land/Pages/default.aspx>

#### 1.4 Section 92 requests and responses

Section 92 of the RMA allows councils to request further information from a requiring authority and/or commission a report, at any reasonable time before the hearing.

The council made further information requests and received responses on the dates in the following table.

Section 92 request	Date of section 92 response
First request for further information prior to notification made on 31 January 2023	First section 92 response on 10 February 2023

The council's section 92 request and the requiring authorities' responses are provided in Appendix 2 to this report.

#### 1.5 Specialist reviews

The assessment in this report takes into account reviews and advice from the technical specialists listed in Table 2 below.

Specialist	Specialty
Andrew Temperley, Traffic Planning Consultants Limited	Transport effects
Lisa Mein, Mein Urban Design Planning	Urban design effects
Rob Pryor, LA4 Landscape Architects	Landscape and visual effects
Amber Tsang, Jacobs and Zheng Xian, Senior stormwater catchment planning specialist Auckland Council	Flooding and stormwater effects
Jon Styles, Styles Group	Noise and vibration effects
Robert Quigley, Quigley and Watts	Social impact assessment
Alicia Wong, Ecologist, Auckland Council	Ecology effects
Dan Windwood, Senior Built Heritage Specialist, Auckland Council	Built heritage effects
Myfanwy Eaves, Principal Specialist Archaeology, Auckland Council	Cultural heritage effects Archaeology

Gavin Donaldson, Senior Arborist, Auckland Council	Arboricultural effects
James Hendra, Consultant Parks Planner, Hendra Planning	Open space effects
West Fynn, Senior Heritage Arborist, Auckland Council	Notable Trees effects

**Table 2: Technical specialists assisting the council**

The specialist reviews are provided in Appendix 1 to this report.

## 2 Notice of requirement description

### 2.1 Background

#### 2.1.1 Context

The background and context to the NoRs is outlined in section 1 of the Assessment of Effects on the Environment ('**AEE**') prepared by Te Tupu Ngātahi. This is summarised below.

The overall Airport to Botany Bus Rapid Transit Project will provide an 18 km, dedicated, high capacity, reliable, and frequent BRT corridor and walking and cycling facilities. The Project will improve connections between the major centres of Botany, Manukau, Auckland Airport and their employment areas to existing and intensifying residential areas in southern and eastern Auckland.

Auckland Transport and Waka Kotahi NZ Transport Agency are seeking to authorise a 14.9 km portion of the overall Project which extends from the south of Botany Town Centre to Orrs Road (**Project**). The remainder of the overall Project will be delivered separately by:

- **Auckland Airport** – BRT corridor and walking and cycling facilities between Orrs Road and the Airport including a bridge across Pūkaki Creek; and
- The **Eastern Busway Alliance** – Botany Station.

Proposed Plan Change 78 to the AUP:OP is implementing the National Policy Statement on Urban Development and the RMA requirements for Medium Density Residential Standards, by providing more intensive zonings and building standards across the urban residential areas of Auckland. As district-level rules they do not affect the A2B NoRs, however they indicate a future more intensive built environment along the bus rapid transit corridor.

Areas of land at Clover Park, south side of Te Irirangi Drive, and at Smales Road, west of Te Irirangi Drive, are being rezoned from Residential – Mixed Housing Suburban to Residential – Mixed Housing Urban. An area of land at the intersection of Te Irirangi Drive and Dawson Road is being rezoned from Residential – Mixed Housing Urban to Residential – Terraced Housing and Apartment Building. The plan change does not acknowledge the future bus rapid transit stations of the Eastern Busway and the A2B Project.

The requiring authorities have set out the need for the Project in section 1.3 of the AEE, as follows:

*Auckland’s south-western, southern and eastern areas are home to a significant population of 360,000 people and includes two of the seven metropolitan centres in Auckland, a substantial growth area at Ormiston and two of Auckland’s largest employment areas at the Airport and in East Tāmaki.*

*Public transport is currently provided by standard bus services, with no direct connection to Manukau or the Airport from Auckland’s eastern areas. Without a new rapid transit connection, large areas of southern and eastern Auckland will remain only partially served by the Rapid Transit Network (RTN).*

*People living in southern Auckland are heavily dependent on access to Manukau Central, the Airport and East Tāmaki for employment. These areas are not easily accessible by the existing public transport network.*

*In summary, the following key transport-related issues were identified in the business case process:*

- A large gap in the RTN in the southern and eastern suburbs resulting in a poor mode share;*
- Poor quality access to employment, including Auckland Airport, Manukau Central, East Tāmaki and community facilities; and*
- Increased pressure on the existing transport network as a result of intensification of residential land.*

### **2.1.2 Lapse dates**

The proposed lapse periods for the A2B NoRs are outlined in Table 3 below.

<b>Notice</b>	<b>Lapse Period</b>
A2B NoR1; A2B NoR2; A2B NoR3; A2B NoR4A	15 years
A2B NoR4B	No lapse period, Designation 6717 already given effect

**Table 3: Summary of Proposed Lapse Periods**

Te Tupu Ngātahi advises that the lapse periods have been selected as the Project is for route protection and there is not funding currently allocated to commence construction. RMA section 184 allows for a longer (than five years) lapse period to be specified when the designations are incorporated in the plan. AEE section 5 entitled ‘Lapse period sought and rationale’ sets out the circumstances and pros and cons of extended lapse periods.

The appropriateness of the proposed lapse dates is assessed in section 4.10 of this report. The Hearing Commissioners may recommend appropriate lapse periods to the Requiring Authority.

### 2.1.3 Future resource consents

Te Tupu Ngātahi advises that in the future, prior to construction, the Project will require NES approvals and resource consents for a number of activities to enable the proposed works. These resource consents are not sought at this time, but will be sought when detailed design for each of the Project stages is completed.

### 2.1.4 Other matters

Other relevant contextual information outlined in Te Tupu Ngātahi's AEE is:

- The extent of the proposed designations includes land for both temporary (construction) and permanent occupation. As such, once construction is completed, AT will remove the parts of the designations no longer required under section 182 of the RMA.
- Under section 176(1)(b) of the RMA, requiring authorities must provide written consent for works within the designation boundaries. As the proposed designations cover open space, residential and business land, AT will need to, where necessary work with landowners and developers under section 176(1)(b) to provide written consent for works, provided that these works will not prevent or hinder the works authorised by the designations.
- Some of the land subject to the proposed designations is subject to existing designations, outlined in Table 3-3, page 19 of the AEE. Te Tupu Ngātahi propose that written approval to undertake works within these will be obtained by AT at a later date during detailed design of the project under section 177(1)(a) of the RMA, and note that approval under section 177(1)(a) is not required to designate the land.

## 2.2 Proposal

The A2B NoRs are described in sections 2.2.1 – 2.2.5 below. In addition to the specific elements of each project, the following components are universal to all five NoRs:

- Batter slopes and retaining to enable construction of the corridor, and associated cut and fill activities;
- Vegetation removal; and
- Areas for construction related activities including site compounds, construction laydown, bridge works area, the re-grade of driveways and construction traffic manoeuvring.

### 2.2.1 A2B NoR1 Bus Rapid Transit – Botany to Rongomai Park (Auckland Transport) (A2B NoR 1)

The A2B NoR1 Bus Rapid Transit – Botany to Rongomai Park (A2B NoR1) Project is described in section 7.6 (p.58) and section 7.1 (p.45) of the AEE, and summarised below.

A2B NoR1 seeks to designate land for construction, operation and maintenance of a BRT corridor and walking and cycling facilities, extending approximately 4.3 km along Te Irirangi Drive from Leixlep Lane to Rongomai Park.

The Project objective is to enable the provision of public transport and active mode corridors in a manner that:

- a) Is safe for all transport users;
- b) Connects Orrs Road (Auckland Airport boundary), with Manukau Metropolitan Centre and Botany Metropolitan Centre;
- c) Includes efficient, resilient and reliable dedicated public transport and active mode infrastructure;
- d) Contributes to mode shift by improving travel choice and access to key destinations along the corridors;
- e) Connects to existing and planned public transport stations;
- f) Integrates with the existing and planned future environment; and
- g) Recognises the future strategic function of the corridor.

A lapse period of 15 years is proposed.

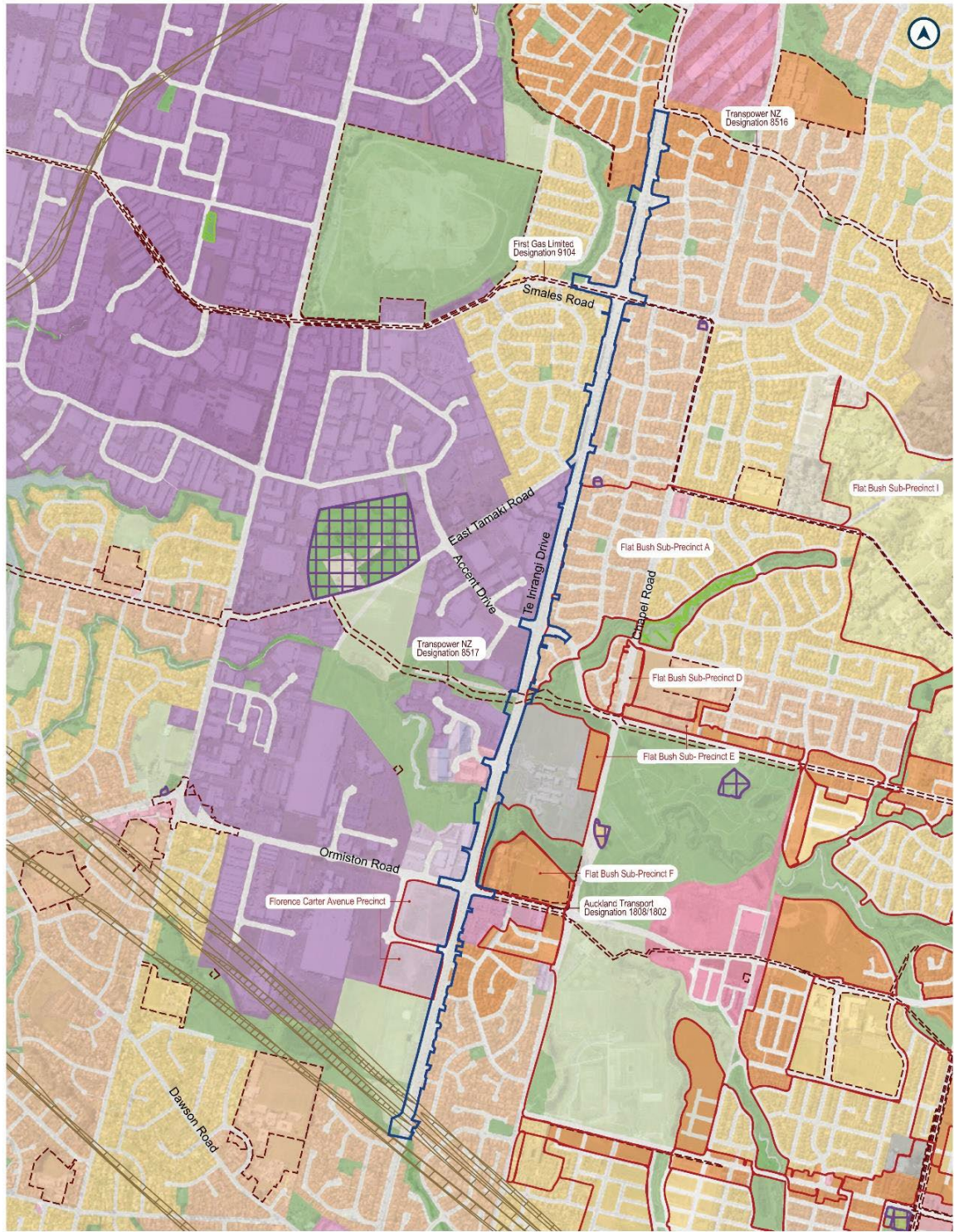


Figure 2: A2B NoR1 Project Map



<b>Features of A2B NoR1</b>	<b>Description</b>
Current land use	The land use along Te Irirangi Drive is primarily residential with some commercial, educational, and retirement facilities.
Community and local facilities	Rongomai Park is zoned for both sports and active recreation and informal recreation. <ul style="list-style-type: none"> <li>• Local Doctors;</li> <li>• Dannemora Gardens Metlifecare Retirement Village;</li> <li>• Sancta Maria schools;</li> <li>• Early Childhood Education – Kindercare; and</li> <li>• BestStart Early Childhood Education</li> </ul>
Waterbodies	The Project crosses Otara Creek to the south of Sancta Maria schools
Vegetation and ecology	Riparian vegetation adjoins Otara Creek
Historic heritage and archaeology	Four recorded archaeological sites and one associated historic heritage extent of place within 200 m of the Project.
Existing designations	<ul style="list-style-type: none"> <li>• Designation 8516 Brownhill Road to Pakuranga Underground Electricity Transmission Cables (Transpower New Zealand Ltd);</li> <li>• Designation 8517 Brownhill Road to Otahuhu Underground Electricity Transmission Cables (Transpower New Zealand Ltd); and</li> <li>• Designation 9104 Gas transmission pipeline (First Gas Limited)</li> </ul>
Precincts	<ul style="list-style-type: none"> <li>• Flat Bush Precinct; and</li> <li>• Florence Carter Avenue Precinct.</li> </ul>
Overlays	<ul style="list-style-type: none"> <li>• Aircraft Noise Notification Area Overlay; and</li> <li>• National Grid Overlay.</li> </ul>
Other non-statutory features	<ul style="list-style-type: none"> <li>• Flood Prone Areas;</li> <li>• Flood Plains; and</li> <li>• Overland Flow Paths including 100 ha and above</li> </ul>
Current zoning	<ul style="list-style-type: none"> <li>• Business – Metropolitan Centre Zone;</li> <li>• Business – Local Centre Zone;</li> <li>• Business – Neighbourhood Centre Zone;</li> <li>• Business – Mixed Use Zone;</li> <li>• Business – General Business Zone;</li> <li>• Business – Light Industry Zone;</li> <li>• Residential – Mixed Housing Suburban Zone;</li> <li>• Residential – Mixed Housing Urban Zone;</li> <li>• Residential – Terrace House and Apartment Buildings Zone;</li> <li>• Open Space – Informal Recreation Zone;</li> <li>• Open Space – Sports and Recreation Zone; and</li> <li>• Special Purpose Zone – Sancta Maria School</li> </ul>

**Table 4: Key features – A2B NoR1**

### **2.2.2 A2B NoR2 Bus Rapid Transit – Rongomai Park to Puhinui Station (in the vicinity of Plunket Avenue) (Auckland Transport) (A2B NoR2)**

The A2B NoR2 Bus Rapid Transit – Rongomai Park to Puhinui Station (in the vicinity of Plunket Avenue) (Auckland Transport) (A2B NoR2) Project is described in section 7.6 (p.58) and section 7.2 (p.48) of the AEE, and summarised below.

A2B NoR2 seeks to designate land for construction, operation and maintenance of a BRT corridor and walking and cycling facilities, extending approximately 6.4 km from Rongomai Park to Plunket Avenue on Puhinui Road.

The Project objective is to enable the provision of public transport and active mode corridors in a manner that:

- a) Is safe for all transport users;
- b) Connects Orrs Road (Auckland Airport boundary), with Manukau Metropolitan Centre and Botany Metropolitan Centre;
- c) Includes efficient, resilient and reliable dedicated public transport and active mode infrastructure;
- d) Contributes to mode shift by improving travel choice and access to key destinations along the corridors;
- e) Connects to existing and planned public transport stations;
- f) Integrates with the existing and planned future environment; and
- g) Recognises the future strategic function of the corridor.

A lapse period of 15 years is proposed.

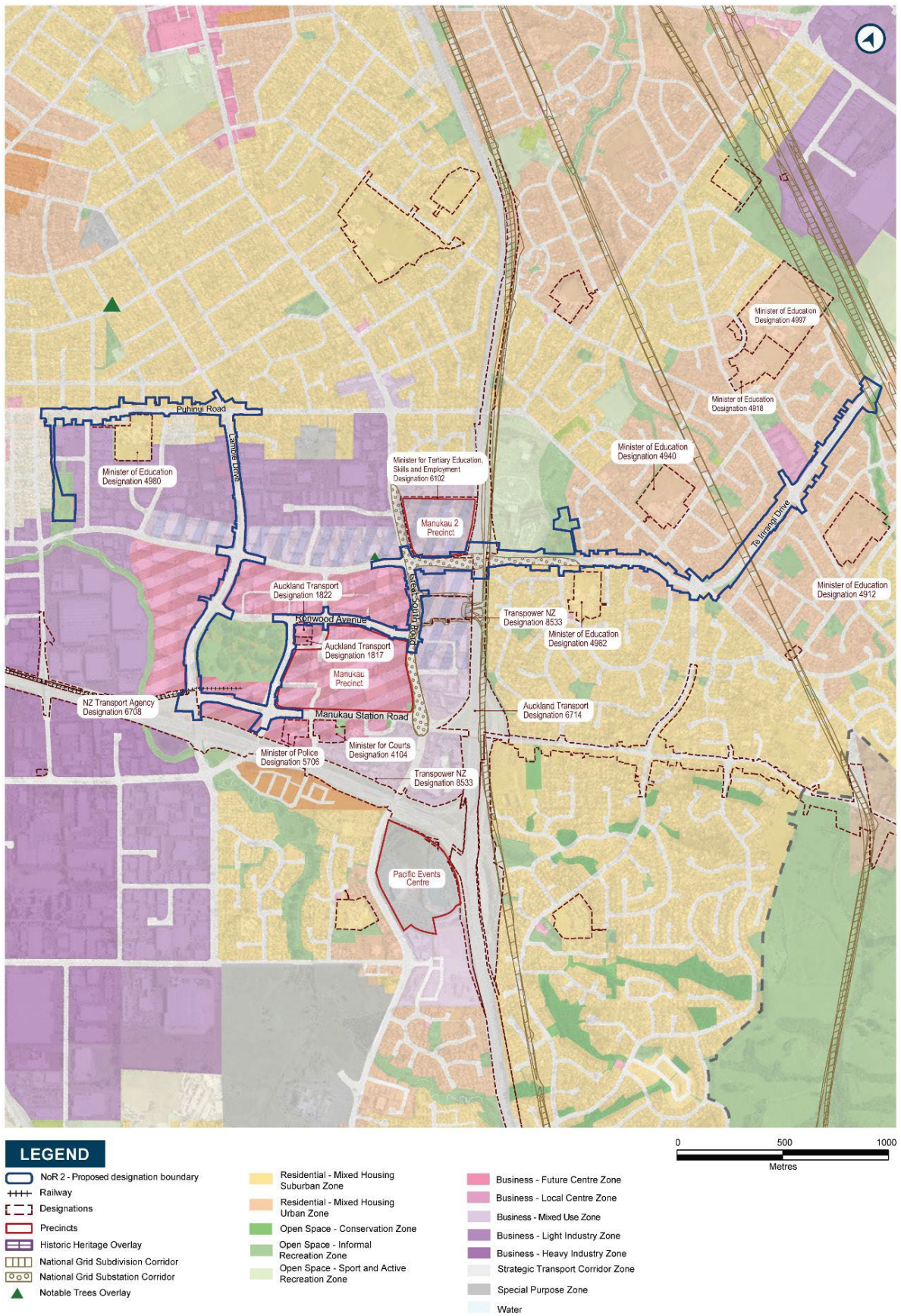


Figure 3: A2B NoR2 Project Map

## Features of A2B NoR2

Current land use

## Description

The land use along Te Irirangi Drive is low density residential through to SH1. Local shops, services, and educational facilities are located in the vicinity of Dawson Road.

Manukau Central transitions into a commercial and retail environment which serves as a major economic centre and employment node.

Hayman Park zoned for informal recreation and is fronted by Manukau Station and Manukau Institute of Technology (MIT).

The land use between Ihaka Place and Puhinui Station is low density residential with local shops and service throughout the area on Puhinui Road adjacent to Ranfurly Road.

Puhinui School is located on Puhinui Road. Puhinui Domain is zoned for informal recreation.

Community and local facilities

- Dawson Road shops;
- Redoubt North School;
- Countdown;
- Auckland University of Technology (AUT);
- MIT;
- Kingdom Hall of Jehovah's Witnesses;
- Papatoetoe Fire Station;
- Best Start Early Childhood Education;
- Universal Church;
- Puhinui Medical Centre;
- Ranfurly local shops on Puhinui Road; and
- Puhinui Superette.

Waterbody

Puhinui Stream

Vegetation and ecology

Riparian vegetation within margins around Rongomai Park

Historic heritage and archaeology

- Notable Tree - Oak Tree outside 9 Cavendish Drive
- Milepost 13 outside 656 Great South Road, which is no longer standing

Existing designations

- 6708 South Western Motorway State Highway 20 (Waka Kotahi);
- 6307 Manukau Rail Link (KiwiRail Holdings Ltd);
- 6302 North Island Main Trunk Railway Line (KiwiRail Holdings Ltd);
- 4980 Puhinui School (Minister of Education);
- 1822 Car Park – Davies Avenue (Auckland Transport);
- 1817 Car Park – Davies Avenue (Auckland Transport);
- 8533 Wiri Electricity Substation (Transpower New Zealand Ltd);
- 6714 State Highway 1 – Manukau City Centre to Takanini (Waka Kotahi); and
- 6102 Auckland University of Technology South Campus (Minister for Tertiary Education, Skills and Employment)

Precincts

- Manukau Precinct; and
- Manukau 2 Precinct.

Overlays

- High-Use Stream Management Areas Overlay;
- High-Use Aquifer Management Areas Overlay;
- Aircraft Noise Notification Area Overlay;
- Moderate Aircraft Noise Area Overlay;
- High Aircraft Noise Area Overlay; and
- National Grid Corridor Overlay.

Other non-statutory features

- Flood Prone Areas;
- Flood Plains; and
- Overland Flow Paths including 100 ha and above.

Current zoning

- Residential – Single House Zone;
- Residential – Mixed Housing Suburban Zone;
- Residential – Mixed Housing Urban Zone;
- Business – Metropolitan Centre Zone;
- Business – Local Centre Zone;
- Business – Neighbourhood Centre Zone;
- Business – Mixed Use Zone;
- Business – General Business Zone;
- Business – Light Industry Zone;
- Open Space – Conservation Zone;
- Open Space – Informal Recreation Zone; and
- Open Space – Sport and Active Recreation Zone.

**Table 5: Key features – A2B NoR2**

**2.2.3 A2B NoR3 Bus Rapid Transit – Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange (Auckland Transport) (A2B NoR3)**

The A2B NoR3 Bus Rapid Transit – Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange (Auckland Transport) (A2B NoR3) Project is described in section 7.6 (p.58) and section 7.3 (p.51) of the AEE, and summarised below.

A2B NoR 3 seeks to designate land for construction, operation and maintenance of a BRT corridor and walking and cycling facilities, extending approximately 1.9 km long from Plunket Avenue to the SH20/20B interchange.

The Project objective is to enable the provision of public transport and active mode corridors in a manner that:

- a) Is safe for all transport users;
- b) Connects Orrs Road (Auckland Airport boundary), with Manukau City Centre and Botany Town Centre;
- c) Includes efficient, resilient and reliable dedicated public transport and active mode infrastructure;
- d) Contributes to mode shift by improving travel choice and access to key destinations along the corridors;
- e) Connects to existing and planned public transport stations;
- f) Integrates with the existing and planned future environment; and
- g) Recognises the future strategic function of the corridor.

A lapse period of 15 years is proposed.

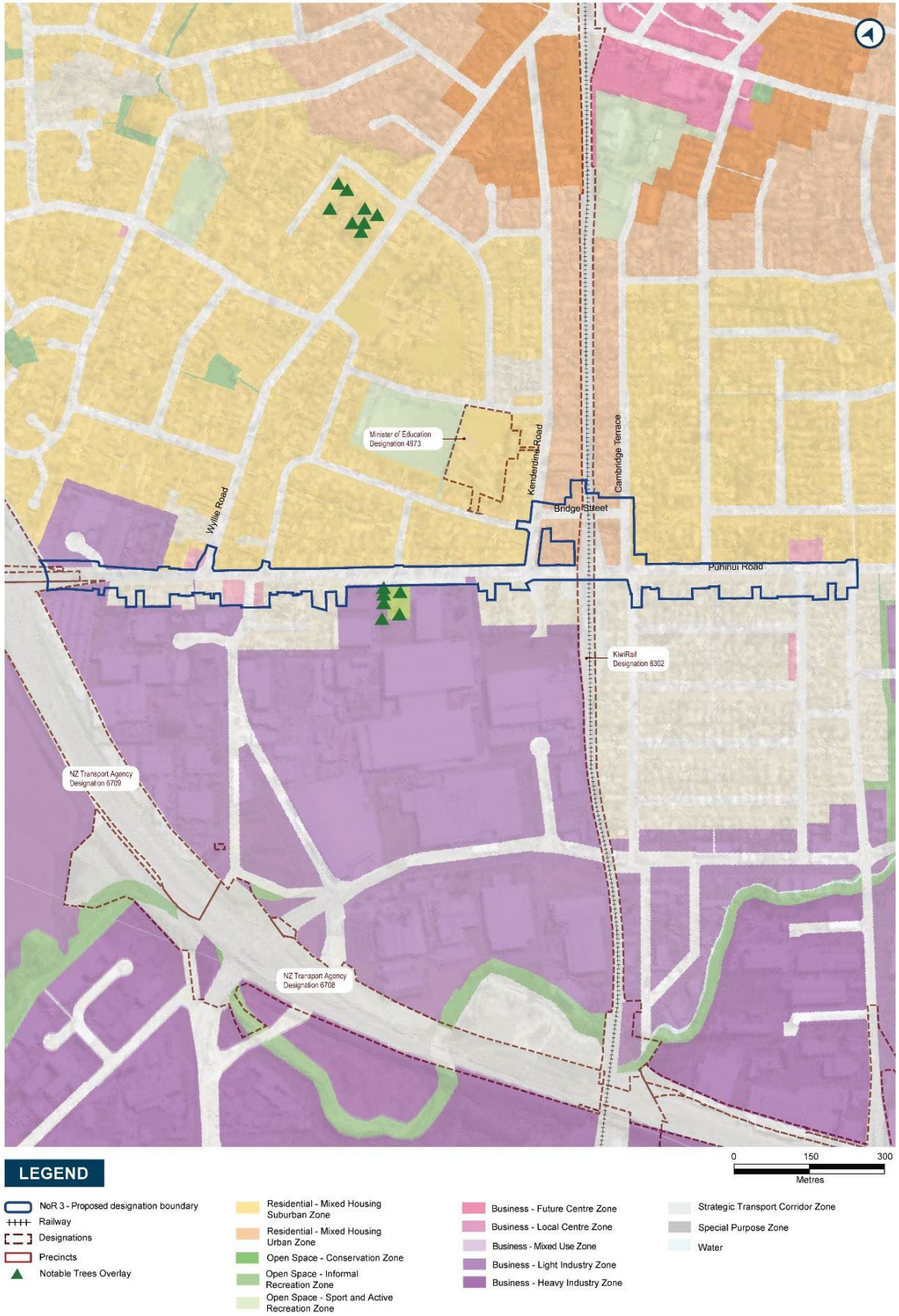


Figure 4: A2B NoR3 Project Map

<b>Features of A2B NoR3</b>	<b>Description</b>
Current land use	The land use is low-density residential to the north of Puhinui Road. Larger industrial sites are to the south of Puhinui Road, with some neighbourhood and local commercial activities throughout.
Community and local facilities	Cambria House is zoned for community use. <ul style="list-style-type: none"> <li>• Te Kohanga Reo ki Puhinui;</li> <li>• Kingdom Hall of Jehovah’s Witnesses;</li> <li>• Whānau Ora Community Clinic;</li> <li>• Local shops at 258 Puhinui Road;</li> <li>• Hari Suprette; and</li> <li>• Mobil Service Station.</li> </ul>
Waterbody	Puhinui Stream
Vegetation and ecology	Mixed native and exotic vegetation adjoining Bridge Street
Historic heritage and archaeology	<ul style="list-style-type: none"> <li>• Two Notable Trees identified: • Flowering gum on the corner of Puhinui Road and Vision Place; and</li> <li>• Magnolia adjoining the Cambria House site at 250 Puhinui Road.</li> </ul>
Overlays	High-Use Stream management Areas Overlay; <ul style="list-style-type: none"> <li>• High-Use Aquifer Management Areas Overlay;</li> <li>• High Aircraft Noise Area Overlay;</li> <li>• Moderate Aircraft Noise Area Overlay;</li> <li>• Notable Trees Overlay; and</li> <li>• Historic Heritage Overlay Extent of Place.</li> </ul>
Other non-statutory features	<ul style="list-style-type: none"> <li>• Flood Prone Areas;</li> <li>• Flood Plains; and</li> <li>• Overland Flow Paths including 100 ha and above.</li> </ul>
Current zoning	<ul style="list-style-type: none"> <li>• Residential – Single House Zone;</li> <li>• Residential – Mixed Housing Suburban Zone;</li> <li>• Business – Light Industry Zone;</li> <li>• Business – Neighbourhood Centre Zone; and</li> <li>• Open Space – Community Zone.</li> </ul>

**Table 6: Key features – A2B NoR3**

#### **2.2.4 A2B NoR4A Bus Rapid Transit – SH20/20B Interchange to Orrs Road (Auckland Transport) (A2B NoR4A)**

The A2B NoR4A Bus Rapid Transit – SH20/20B Interchange to Orrs Road (Auckland Transport) (A2B NoR4A) Project is described in section 7.6 (p.58) and section 7.4 (p.53) of the AEE, and summarised below.

A2B NoR4A (Auckland Transport) seeks to designate land for construction, operation and maintenance of a BRT corridor and walking and cycling facilities, extending approximately 2.3 km long from the SH20/20B interchange to Orrs Road.

The Project objective is to enable the provision of public transport and active mode corridors in a manner that:

- a) Is safe for all transport users;

- b) Connects Orrs Road (Auckland Airport boundary), with Manukau City Centre and Botany Town Centre;
- c) Includes efficient, resilient and reliable dedicated public transport and active mode infrastructure;
- d) Contributes to mode shift by improving travel choice and access to key destinations along the corridors;
- e) Connects to existing and planned public transport stations;
- f) Integrates with the existing and planned future environment; and
- g) Recognises the future strategic function of the corridor.

A lapse period of 15 years is proposed.



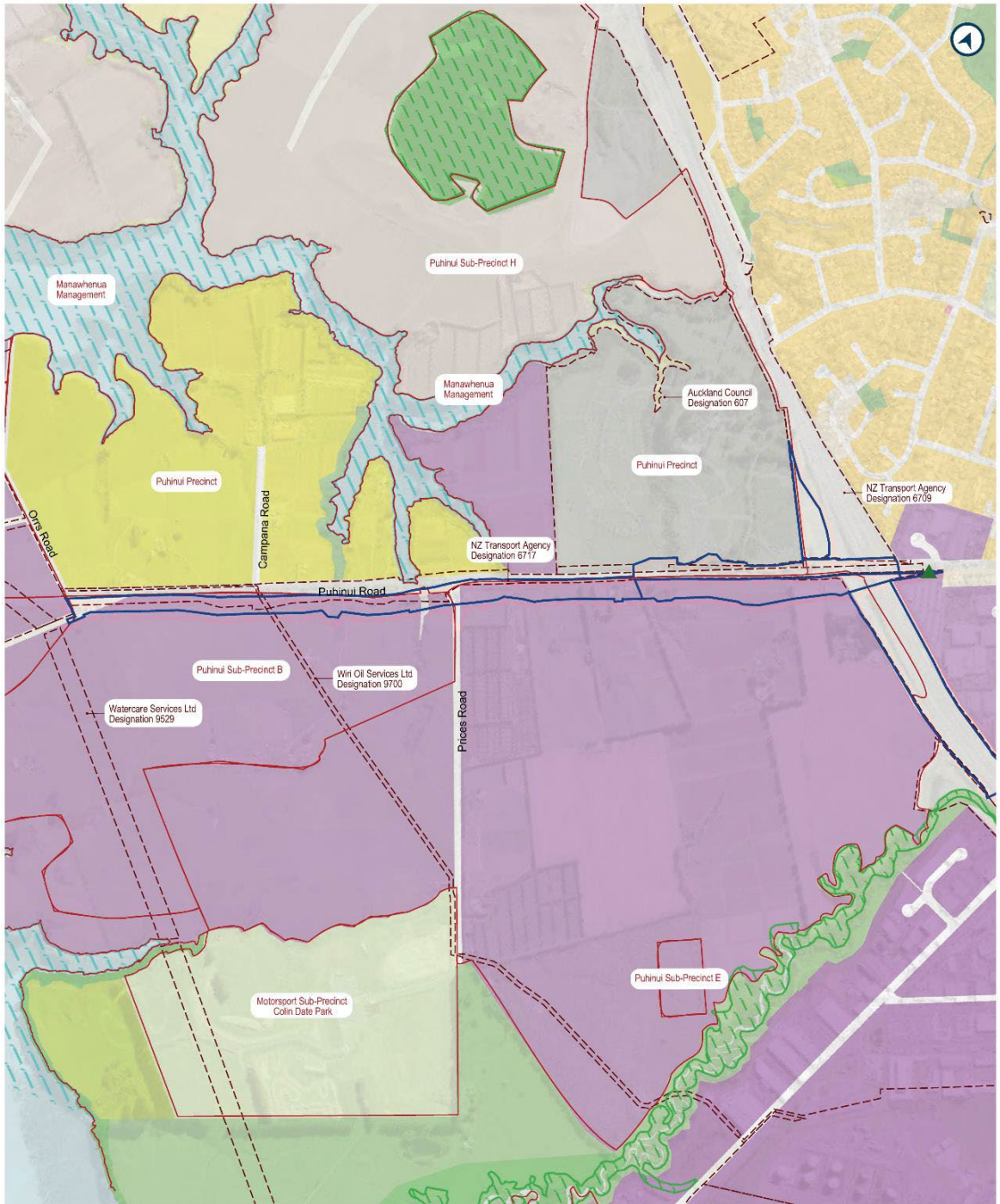


Figure 5: A2B NoR4A (Auckland Transport) Project Map

Features of A2B NoR4A	Description
Current land use	The current land use is predominantly rural, however land south of SH20B is zoned for light industry and the land use there is currently transitioning.
Community and recreational facilities	Manukau Memorial Gardens is a cemetery is located to the north of Puhinui Road, adjoining SH20/SH20B
Waterbodies	<ul style="list-style-type: none"> <li>• Waokauri Creek; and</li> <li>• Pūkaki Creek.</li> </ul>
Vegetation and ecology	Riparian margins adjoining the tributaries of Waokauri Creek and Pūkaki Creek
Historic heritage and archaeology	There are eight recorded archaeological sites within 200 m of the Project.
Existing designations	<ul style="list-style-type: none"> <li>• Designation 6717 State Highway 20B - State Highway 20 to Auckland International Airport (Waka Kotahi);</li> <li>• Designation 6709 South Western Motorway State Highway 20 (Waka Kotahi);</li> <li>• Designation 1100 Auckland International Airport (Auckland International Airport Limited);</li> <li>• Designation 9529 Southwestern Interceptor Line (Watercare Services Ltd);</li> <li>• Designation 6501 Petroleum Pipeline – Urban Section (New Zealand Refining Company Ltd);</li> <li>• Designation 9700 Wiri to Auckland International Airport Jet Fuel Pipeline (Wiri Oil Services Ltd); and</li> <li>• Designation 607 Manukau Memorial Gardens (Auckland Council).</li> </ul>
Precincts	<ul style="list-style-type: none"> <li>• Puhinui Precinct – Development and subdivision that does not comply with the transport provisions (total traffic generated shall not cumulatively exceed 1035 vehicles per hour) of the Puhinui Precinct is a non-complying activity; and</li> <li>• Puhinui Precinct (sub-precinct A, B, D) – 40 m yard setback for sites adjoining the edge of Designation 6717 (as at 30 September 2013).</li> </ul>
Overlays	<ul style="list-style-type: none"> <li>• Significant Ecological Areas Overlay;</li> <li>• High-Use Stream Management Areas Overlay;</li> <li>• High-Use Aquifer Management Areas Overlay; and</li> <li>• High Aircraft Noise Area Overlay.</li> </ul>
Other non-statutory features	<ul style="list-style-type: none"> <li>• Flood Prone Areas;</li> <li>• Flood Plains; and</li> <li>• Overland Flow Paths.</li> </ul>
Current zoning	<ul style="list-style-type: none"> <li>• Future Urban Zone;</li> <li>• Business – Light Industry Zone;</li> <li>• Special Purpose Zone – Cemetery; and</li> <li>• Open Space – Informal Recreation Zone.</li> </ul>

**Table7: Key features – A2B NoR4A (Auckland Transport)**

**2.2.5 A2B NoR4B Alteration to Designation 6717 State Highway 20B – State Highway 20 to Auckland International Airport (Waka Kotahi NZ Transport Agency) (A2B NoR4B)**

The A2B NoR4B Alteration to Designation 6717 State Highway 20B – State Highway 20 to Auckland International Airport (Waka Kotahi NZ Transport Agency) (A2B NoR4B) is described in section 7.6 (p.58) and section 8.1 (p.59) of the AEE, and summarised below.

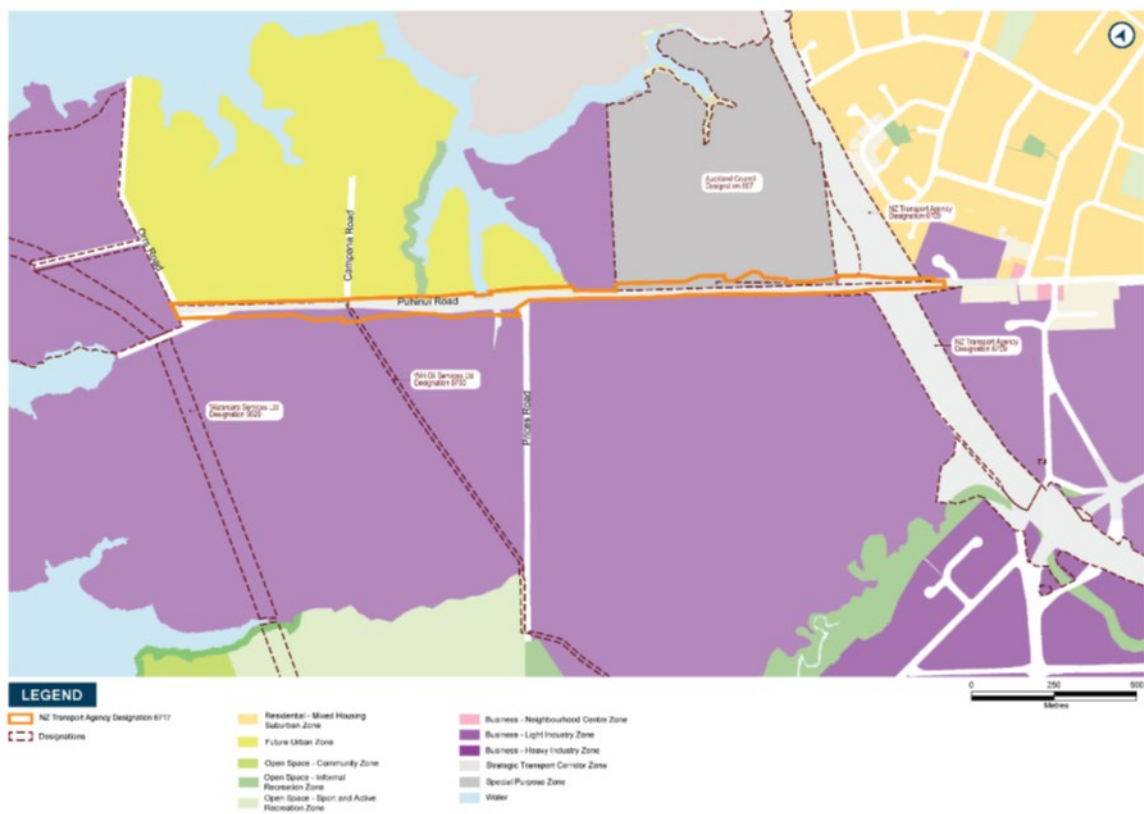
State Highway 20B Road purposes: the maintenance, operation and improvement of the State Highway (including road widening).

The Project objective is to: provide for the maintenance, operation and improvement of the State Highway 20B corridor while enabling the implementation and delivery of a public transport corridor for the Airport to Botany public transport network.

Proposed designation alteration approximately 0.9 km long from Manukau Memorial Gardens to SH20/20B interchange, and approximately 0.7 km long ramp from SH20B onto SH20 for southbound traffic.

A lapse period is not required for A2B NoR4B because the designation being altered has already been given effect.

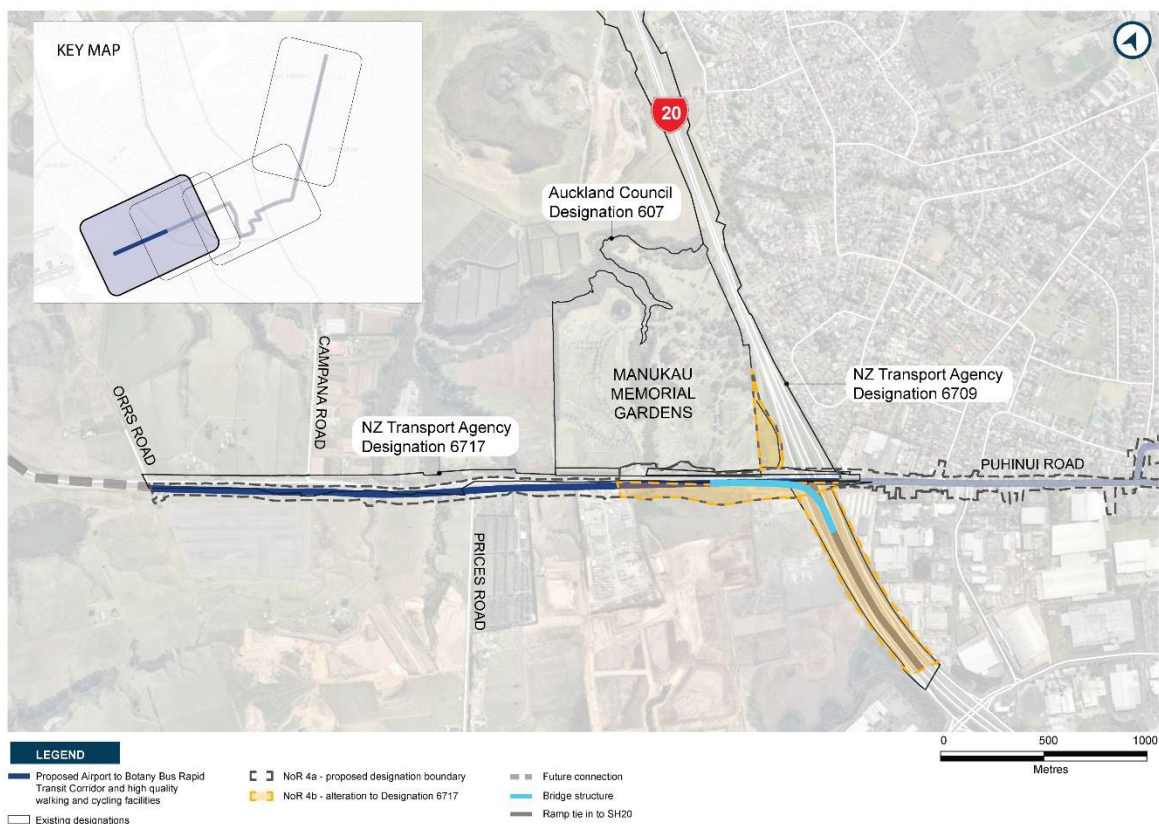
The western portion of the Project is subject to an existing designation (Designation 6717) for the maintenance, operation and improvement of the State Highway (including road widening).



**Figure 6: Map showing extent of existing Designation 6717 (shown in orange) - SH20B in the AUP:OP**

The existing Designation 6717 includes a set of conditions which relate to an earlier project – SH20B Short Term Improvements. This project was completed in 2021 as part of the Programme. A2B NoR4B proposes to widen SH20B between the SH20/20B interchange and the intersection of Manukau Memorial Gardens. This is to provide westbound lanes to Auckland Airport, high quality walking and cycling facilities and a ramp from SH20B onto SH20 for southbound traffic, while enabling the provision of a Bus Rapid Transit corridor.

As such, an alteration to the existing NZ Transport Agency Designation 6717 is required. The full extent of the proposed ramp from SH20B onto SH20 will be included in A2B NoR4B. This means that the proposed alteration will increase the overlap with NZ Transport Designation 6709 for SH20. A2B NoR4B also includes a portion of land adjacent to SH20 on the north side of SH20B adjacent to Manukau Memorial Gardens, this is Crown-owned land and is proposed to be utilised by the Project.



**Figure 7: Map showing the extent of the proposed alteration to Designation 6717**

It is proposed that the two NoRs overlap between the SH20/20B interchange and Manukau Memorial Gardens to:

- Facilitate the Bus Rapid Transit corridor;
- Recognise that the timings of construction for A2B NoRs 4A and 4B are likely to coincide; and
- Provide sufficient space for the construction, operation, maintenance and mitigation of the NoRs.

As set out above, the existing conditions for Designation 6717 relate to the SH20B Short Term. For the extent of the proposed works for A2B NoR4B, the existing conditions for Designation 6717 are proposed to be removed and new conditions will be applied in response to any effects identified. These proposed conditions will not apply to works beyond the extent of NoR4B associated with the on-going operation, safety improvements, and maintenance of the existing state highway (SH20B), or the upgraded state highway following construction of the Project.

### **2.3 Affected land**

Land requirement plans provided as Attachment B to the Form 18 documents of the A2B NoRs together with the schedule provided as Attachment C to the relevant Form 18 documents describes the land that will be directly affected and required for the project and associated works. Individual properties can be searched by address on the council's Unitary Plan Maps web-page (Geomaps), and if the address has an NoR applying it can be switched on to show a red-shaded extent of proposed designation on the land. General Arrangement Plans lodged with the application also show the extent of the proposed designations and a general depiction of the proposed busway lanes, general traffic lanes, medians, berms, cycleways, walkways, stormwater devices and cut/fill batters at road edges.

### **2.4 Site, locality, catchment and environment description**

This report relies on the site and environment descriptions provided by the requiring authority as set out in the following sections of the AEE supporting the A2B NoRs:

- A2B NoR1: section 7.1 (p.45)
- A2B NoR2: section 7.2 (p.48)
- A2B NoR3: section 7.3 (p.51)
- A2B NoR4A (Auckland Transport) and A2B NoR4B (Waka Kotahi NZ Transport Agency): section 7.4 (p.53)
- A2B NoR 1, 2, 3, 4A & 4B future environment: section 7.5 (p.56).

Section 6.1 of the AEE sets out Te Tupu Ngātahi's approach to design and the existing and likely future environment at time of construction commencement. In essence, the A2B NoRs are to route protect necessary strategic transport corridors in urban environments. As established, the proposed designations (A2B NoRs 1 to 4A) and alteration to Designation 6717 (A2B NoR4B) sought by the NoRs will protect a BRT corridor with high quality walking and cycling facilities.

Te Tupu Ngātahi has developed an approach to assessing the likely future receiving environment as the Intensification Streamlined Planning Process, implemented by Plan Change 78 of the AUP:OP, which is underway but had not reached the hearing stage of the process. Plan Change 78 introduces the planning response to Policy 3 of the National Policy Statement on Urban Development (**NPS:UD**) and the Medium Density Residential Standards as required by the RMA.

Policy 3 of the NPS:UD requires that Regional Policy Statements and District Plans enable intensification. This means that District Plan zoning must enable a minimum of 6 storeys within walkable catchments of existing and “planned” rapid transit stops. At present Plan Change 78 does not include the required zoning within the walkable catchments of the BRT corridor. It is noted that whilst the BRT corridor meets the definition of “planned”, there is no certainty of station locations (and subsequently the walkable catchments) until such time the designations are confirmed.

The design undertaken to date is only at a level sufficient to inform the proposed designation boundaries and to assess an envelope of effects that includes operational and maintenance requirements, potential construction areas, and areas required to mitigate effects from the Project. It has been prepared for assessment purposes, and to indicate what the final design of the Project may look like.

The final alignment for the Project (including the design and location of associated works including bridges, culverts, stormwater management systems, soil disposal sites, signage, lighting, landscaping, realignment of access points to local roads, and maintenance facilities), will be refined and confirmed at the detailed design stage.

The detailed design will be undertaken before construction and an Outline Plan or Plans of Works (OPW) (as the Outline Plans may be staged to reflect Project phases or construction sequencing) will be submitted to Council as set out in s176A of the RMA.

The implementation timeframe for the Project is yet to be confirmed and is subject to funding. To enable an assessment of the potential effects of the Project on the environment, the assumed construction start date is 15 years away.

## 2.5 Other designations and notices of requirement

The land within or adjoining the NoR is subject to existing designations. Te Tupu Ngātahi propose that written approval to undertake works within these will be obtained by AT at a later date during detailed design of the project under section 177(1)(a) of the RMA, and note that approval under section 177(1)(a) is not required to designate the land.

Utility Provider	Asset	Designation
Transpower New Zealand Ltd	Transmission lines and substation	8516, 8517
First Gas Ltd	Gas pipeline	9104
Wiri Oil Services Ltd	Jet fuel pipeline	9700
Channel Terminal Services Ltd	Petroleum pipeline	6501
Vector Ltd	Medium voltage overhead lines	Not designated
Chorus Ltd	Communication lines	Not designated
Watercare	Wastewater and water supply pipes	Not designated

**Table 8: Summary of network utilities within the proposed designation boundaries (from AEE Table 8)**

Some of the land to be designated for the Project is already subject to existing designations which are generally other network utility operators. Not all of the network utility operators have designations for their utilities.

In order to undertake work in accordance with a designation on land where there is an existing designation in place, the written consent of the requiring authority for the earlier designation is required under section 177(1)(a).

This written approval is required in order for Auckland Transport and Waka Kotahi to be able to undertake works in accordance with the later designations and alteration to Designation 6717 (the Project). It is not required in order to designate the land for those later works. For this reason, written approval under section 177(1)(a) of the RMA has not yet been obtained.

Consultation with all the requiring authorities, whose approval will be required in the future, has taken place and will continue as the Project is developed. Written approval from these requiring authorities will be obtained by Auckland Transport and Waka Kotahi at a later date during the detailed design stage of the Project.

### 3 Notification, submissions and local board views

#### 3.1 Notification

The A2B NoRs were publicly notified on 10 March 2023.

The closing date for submissions was 11 April 2023.

#### 3.2 Submissions

200 submissions were received across the five NoRs, as summarised in Table 9 below.

NoR	Submissions
A2B NoR1 Bus Rapid Transit – Botany to Rongomai Park	49
A2B NoR2 Bus Rapid Transit – Rongomai Park to Puhinui Station (in the vicinity of Plunket Avenue)	82
A2B NoR3 Bus Rapid Transit – Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange	39
A2B NoR4A Bus Rapid Transit – SH20/20B Interchange to Orrs Road	19
A2B NoR4B Alteration to Designation 6717 State Highway 20B – State Highway 20 to Auckland International Airport (Waka Kotahi NZ Transport Agency).	11

**Table 9: Submissions received on A2B NoRs 1, 2, 3, 4A and A2B NoR4B Alteration to Designation 6717**

Eight submissions were received, on 16 and 19 and 27 April, being NoR1-45 Paul Street, NoR3-39 Satnam Bhatt, NoR1-46 Te Akitai Waiohua Waka Taua Trust, NoR2-82 Te Akitai Waiohua Waka Taua Trust, NoR3-38 Te Akitai Waiohua Waka Taua Trust, NoR4A-19 Te Akitai Waiohua Waka Taua Trust and NoR4B-11 Te Akitai Waiohua Waka Taua Trust, and NoR2-83 Huong Thi & Van Dung Nguyen. Auckland Council (delegated to Manager Central/South Planning) extended the submission period for those four submitters, pursuant to s 37A of the RMA. **In my opinion these are not 'late' submissions, and the Hearing Commissioners do not need to make a decision on whether to accept them as late submissions.**

Four more submissions were received late, on 7 May from NoR3-40 Anita and Ramandeep Singh and on 24 May, from NoR1-47B Beale Partnership (350 Te Irirangi Drive) and NoR1-47A East Tamaki Investments Ltd (360 Te Irirangi Drive) and from NoR1-48 Howard Property Ltd (4 Beale Place). The latter three submissions have covering letters explaining that the previous occupant had been notified, but the current occupants and owners had not been notified. The Chair of Hearing Panel advised that, if the submission was received on or before the 10 May 2023, then the Chair of Hearing Panel is happy to accept it under S37A(2)(a) of the RMA. **The Hearing Commissioners will need to decide whether to accept the NoR1-47A and NoR1-47B and NoR1-48 late submissions, as a procedural matter at the hearing, if they have not had their time limit extended under s37 by the Hearings Panel.** NoR2-20 Ormiston Centre Ltd - Russell Bartlett acting for the submitter has advised in a letter on 11 May that the submission should have been lodged in relation to NoR1, within which the Ormiston Centre site lies. Chair of Hearing Panel issued Direction 1 waiving the time limit for NoR3-40 Anita and Ramandeep Singh and NoR1-49 Ormiston Centre (previously NoR2-20). Mr Bartlett also advised the Council by letter of 11 May 2023 that the Altrend Properties Limited submission NoR4A-04 should have also referred to the related NoR4B (alteration to Designation 6717 Waka Kotahi NZTA). At the time of writing this report that submission is being considered for waiver of time limit. I have allocated it as NoR4B-20 Altrend Properties Limited.

24 submissions were lodged against NoRs which were not the ones intended by the submitters. They were recorded in the Summary of Submissions table against the NoR they named in their submission, but annotated to refer to their intended NoR. The unintended submissions became apparent to me when preparing the summary of submissions, and later when I began mapping the submitters' property effects. In my reporting on those submissions I refer to them as NoRX-YY ZZZZZZZZ (actually on NoRQ), so that the substance of their submission is relevant. For example, 'NoR1-02 Kawaljeet Singh ON NOR2' refers to submission 2 by Kawaljeet Singh on NoR1, which is actually on NoR2 based on the relief sought by the submitter. Those submissions are:

NoR1-02 Kawaljeet Singh ON NOR2

NoR1-11 Mr Aisea Sasalu ON NOR2

NoR1-16 Kathleen Waller ON NOR3

NoR1-17 Danny Charanjit Singh ON NOR2

NoR1-28 Pisan Charoenmongkhonwilai ON NOR2

NoR1-35 Tasman Accounting Trustee Ltd Attn: Mark and Marta Stevens ON NOR2 CLOVER PARK

NoR1-36 Jamie Khang Nguyen ON NOR2 & NOR3



NoR2-05 Manjinder Singh Birk ON NOR3

NoR2-06 Rawandeep Kaur ON NOR3

**NoR2-20 Ormiston Centre Ltd c/- Russell Bartlett ON NOR1** [resubmitted as NoR1-49]

NoR2-31 Risha Kumar ON NOR1

NoR2-34 John Isaac Subhashni Devi Sadd ON NOR3

NoR2-80 Selemena Afamasaga ON NOR1

NoR2-81 Gordon Barthow ON NOR3

NoR3-04 Parvinder Singh ON NOR2

NoR3-05 Ronil Prasad ON NOR2

NoR3-10 John Hansford ON NOR2

NoR3-12 Birgitta Sherley Prom ON NOR2

NoR3-14 Nigel Stickland ON NOR2

NoR3-16 Lee Mee Then POSSIBLY ON NOR2 MENTIONS 18 RONWOOD AVE

NoR3-18 Reena Rani ON NOR2

NoR4A-10 Phisan Charoenmongkhonwilai ON NOR2

NoR4B-01 Wendy Jane Rodger ON NOR3

NoR4B-03 Maya Krishna Goundar ON NOR2

TIM Nominees Limited and The Saint Johns College Trust Board NoR1-27 at 439 East Tamaki Road was lodged in time but a Transport memo was subsequently lodged late, on 10 May. The Chair of the Hearing Panel directed that if the Transport Memo is simply supporting information, then it can be attached to the submission. In any case it can also be provided as submitter's specialist evidence and presented at the hearing.

Copies of submissions are provided in Appendix 4 to this report. Submissions are referenced by NoR and submission number (e.g. NoR2-17 refers to A2B NoR2 submission 17). In most cases the submitter's name is included, except for where the report is addressing general concerns of submissions. In the Transport topic, submissions are grouped into sub-themes and transport issues, and are not individually named.

Summaries of submissions are provided in Appendix 3 to this report. The issues raised in submissions include:

- Extent of the designation needing to be justified
- Need for the BRT Project
- Further information required
- Property value and land acquisition, and compensation

- Social impact of displacement of families and communities
- Consultation and engagement
- Business effects on access to businesses, loss of small businesses, disruption to businesses
- Traffic effects of roading changes, intersections and parking
- Access to and from properties and within complex sites
- Project scope not to include walkways and cycleways
- Construction noise and vibration effects
- Other construction effects, e.g. dust, air pollution, water pollution
- Operational traffic and road noise and vibration effects
- Visual impact
- Loss of trees
- Flood and climate change effect risk exacerbated by increased impervious surface area and loss of trees
- Urban design effects on frontages, street trees, retaining walls preferred over batter slopes, design of the BRT alignment
- Compromised activities – operation of sites disrupted or unviable due to construction effects or design of works
- Alternatives – Alternative routes, route through commercial not residential areas, alternatives to BRT
- Historic heritage effects on sites, notable trees, archaeology
- Community facilities and Parks effects
- Zoning future changes and intensification, and the use of surplus designated land
- Infrastructure effects
- Lapse period uncertainty
- Authority of AT to undertake the works
- Indirect costs including third party resource consents and variations to consent conditions

The submissions do not raise any trade competition issues.

A number of submissions refer to an NoR but the property reference is to a different NoR. Those occurrences are annotated in the Summaries of submissions and within this report, and may include some presumption on my part that they were intended to refer to that different NoR within which the submitter's address is located.

The issues raised in submissions are addressed in section 4.4 of this report alongside an assessment of adverse effects.

#### Submissions on Support or Reject

## **SUPPORT**

A number of submissions support the various or all A2B NoRs, some with reasons and some with residual concerns about how the Project should proceed.

Mohammad Meraj NoR1-38 supports NoR1 with no reasons or comments made, or decision sought. His house at 1/132 Wallace Road (or mapped as 1/187 Puhinui Road) has the NoR3 adjacent but it does not extend into the site.

Business East Tamaki NoR1-23 supports the NoR1 and Project, but seeks mitigation of effects, including by the preparation of a Development Response Management Plan.

Arena Williams MP NoR2-74 and NoR3-33 supports the Project but has some concerns about consultation and engagement.

Huong Thi Nguyen & Van Dung Nguyen NoR2-83 support NoR2 and the Project.

KiwiRail Holdings Limited NoR3-20 supports NoR3 and the proposed conditions on designation review, s177 consents (amended), and the NUMP.

Te Ākitai Waiohua Waka Taua Trust submitted as Neutral on each of the five NoRs, but supporting the Mana Whenua Partnership condition.

## **REJECT**

A number of submissions wish to reject the A2B NoRs and the Project, without giving a reason or comment. Some of those submissions are from addresses directly affected by the NoRs.

Submissions seeking rejection of the NoR OR amendment to meet concerns are reported under the concern topics.

Roger Dundang NoR1-07 opposes the NoR1 and wishes to keep the environment as it is now.

Ganpat Patel NoR3-06 seeks to reject NoR3 as the removal of parking from the front of his shops on Puhinui Road would make the businesses unviable.

Bhavesbhai Ramanbhai Patel NoR3-07 seeks to reject NoR3 as it would have unacceptable effects on businesses (loss of parking).

John Hansford NoR3-10 (actually on NoR2) rejects the NoR, whole of property is required for the Project.

Balwinder Singh NoR1-05 seeks to reject NoR1 as they do not want to leave the house. [Their property 13 Brittas Place is not removed by the Project, although the adjacent property 15 Brittas Place, which fronts Te Irirangi Drive, is directly affected by the NoR1]

### **3.3 Local Board views**

Views were sought from the Howick, Ōtara Papatoetoe and Māngere-Ōtāhuhu Local Boards following the close of submissions.

**The Howick Local Board** provided the following views, with their Resolution in full in Appendix 4:

Howick Local Board support the project in principle as a key transport infrastructure project providing links through to the Airport, acknowledge the feedback from the community, and note with concern the impact on:

- A) loss of trees along the corridor including the slip lanes
- B) loss of berms
- C) access for residents
- iv) encourage exploration of options for reducing impact on existing infrastructure

Howick Local Board note with concern about the long timeframe from the Notice of Requirement through designation through to completion.

They request that trees lost are replaced like for like and wherever possible retain trees and / or relocate them to another site in close proximity and explore other options including sale or distribution.

Howick Local Board suggest that barriers are provided to protect people who walk and cycle along the residential properties in the area, and request that the planners explore the use of Chapel Road as the key walking and cycling infrastructure to support the changes in Te Irirangi Drive with respect to the Airport to Botany Bus Rapid Transit Project as an alternative by completing the network along Chapel Road.

The Project will involve retention of trees where possible, and replacement trees for those removed. The Te Irirangi Drive slip lanes will be re-constructed, retain access to properties, and have new street trees. The Requiring Authority is proposing a 15 year lapse period, partly because this is a route protection project and funding has not yet been allocated to its construction.

### **The Ōtara Papatoetoe Local Board**

Ōtara-Papatoetoe Local Board views are recorded in full in Appendix 4 Copies of Submissions and Local Board Views, and are summarised as follows:

Ōtara-Papatoetoe Local Board supports moves for developing public transport connections and facilitating rapid, frequent, and reliable transport services in Auckland, and supports Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan and the aim of reaching net zero emissions by 2050.

They seek full consideration of the specific impact on local communities of Ōtara-Papatoetoe as the Airport to Botany Bus Rapid Transit project is developed, designed and delivered.

They are concerned that the NoRs / designations will restrict the ability to use and develop affected parks, and would prefer a blanket permission to enable parks to be developed to meet the needs of the community.

The ten to fifteen years' time before construction commences will affect other property owners as well as Parks, with uncertainty on compensation and how land can be used in the interim.

Access to recreational facilities is under increasing population pressure. The Manukau Sports Bowl, Hayman Park, Rongomai Park and Puhinui Domain are reserves of increasing and high use. They also serve as venues for regional and sub-regional events and gatherings. Access to the parks needs to be assured during construction and afterwards, and including any required reconfiguration of internal roading and access. Access to schools also needs to be protected during the construction phases.

Ōtara-Papatoetoe Local Board requests that quicker access routes to Auckland International Airport and other major destinations is considered, such as a direct road connection between Diorella Drive to Puhinui Station and through to the airport, by bypassing Manukau Bus and Train Station for quicker road access to the airport.

They request timely consultation with council and the local board in the project planning stage to inform use, and therefore better manage impacts on open spaces. Local boards should be noted as a stakeholder in the Stakeholder Communication and Engagement Management Plan (SCEMP).

In relation to Council projects and masterplans, the Local Board seeks that the BRT planning and assessments give priority to Transform Manukau projects, the Manukau Sports Bowl masterplan (including alternative stormwater pond locations), and Hayman Park playground transformation and expansion,

On the individual NoRs, the Local Board notes that in each case impact on property is the principal concern of submitters, followed by access to property affected by the NoRs. The Local Board considers that residents are concerned about the impact on property values and inability to develop their land. Those property owners that will have only part of their section purchased by Auckland Transport, and are concerned that it will leave them in a worse position, with a reduced section and impacted property value.

A footbridge that crosses Te Irirangi Drive from Rongomai Park to residential housing on the other side of Te Irirangi Drive is to be removed. The Ōtara-Papatoetoe Local Board is concerned about pedestrian access across the proposed roadworks from residential housing to the park and also to access the nearby High School. [The Project includes reducing the speed limit and creating additional mid-block crossings to improve access across Te Irirangi Drive].

As a significant number of houses will be lost on the upper NoR2 and NoR3 sections of the Project, and Auckland Transport has to purchase entire properties in many circumstances, the Local Board considers there should be green spaces that enhance environmental impacts along the route. This suggestion is also due to the local board area having the second lowest tree canopy cover in Auckland.

### **The Māngere Ōtāhuhu Local Board**

FILE REF CP2023/05132 AGENDA ITEM NO. 16

Local Board views on Notices of Requirement for the Airport to Botany Bus Rapid Transit Project  
Resolution number MO/2023/53 MOVED by Chairperson N Bakulich, seconded by Member P Peo:  
That the Māngere-Ōtāhuhu Local Board:

- a) acknowledge that the majority of the area covered by the Notices of Requirement for the Airport to Botany Bus Rapid Transit Project are not within the Māngere-Ōtāhuhu Local Board boundary
- b) tautoko / supports the views of the Otara-Papatoetoe Local Board and shares the concerns highlighted in that board's submissions where it affects property values, construction disruption including construction noise and vibration effects, concerns about access, impacts on parking, and effects of stormwater and flooding risk
- c) tuhi ā-taipitopito / note that the improvements will help connect the Māngere-Ōtāhuhu's transport projects including the cycling network, and provide more choices for communities to travel to the airport and Māngere-Ōtāhuhu's business areas
- d) tautoko / support road designs and water catchment infrastructure to mitigate any negative consequences to the local Puhinui Craters, Colin Dale Reserve, Manukau Harbour and the wider ecological system to ensure these sensitive areas are protected
- e) tuhi ā-taipitopito / note that currently, the Puhinui Road airport area is only coping with the traffic congestion at peak times. The local board request the construction phase is managed, to avoid traffic congestion adversely impacting the Māngere-Ōtāhuhu roads near the airport.

CARRIED

Local Board views are provided in Appendix 4 to this report.

## 4 Consideration of the notices of requirement

### 4.1 Designations under the Resource Management Act 1991

The RMA provides that the procedures adopted in processing a notice of requirement are generally those adopted for processing a resource consent application. This includes lodgement, requiring further information, notification, receiving and hearing of submissions. In respect of the A2B NoRs, all of those procedures have been followed.

The procedure differs from the resource consent process in respect of the council consideration of the NoRs. Section 171(1) of the RMA states:

- (1) *When considering a requirement and any submissions received, a territorial authority must, subject to Part 2, consider the effects on the environment of allowing the requirement, having particular regard to—*
  - (a) *any relevant provisions of—*
    - (i) *a national policy statement:*
    - (ii) *a New Zealand coastal policy statement:*
    - (iii) *a regional policy statement or proposed regional policy statement:*
    - (iv) *a plan or proposed plan; and*
  - (b) *whether adequate consideration has been given to alternative sites, routes, or methods of undertaking the work if—*

- (i) *the requiring authority does not have an interest in the land sufficient for undertaking the work; or*
- (ii) *it is likely that the work will have a significant adverse effect on the environment; and*
- (c) *whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought; and*
- (d) *any other matter the territorial authority considers reasonably necessary in order to make a recommendation on the requirement.*

Section 171(1)(a) is addressed in section 4.5 – 4.7 below. Section 171(1)(b) is addressed in section 4.8 below. Section 171(1)(c) is addressed in section 4.9 below. Section 171(1)(d) is addressed in section 4.10 below.

Section 171(1) is subject to Part 2 of the RMA. Part 2 contains the purpose and principles of the RMA. It has been confirmed by the Environment Court that, in relation to a designation matter:

*...all considerations, whether favouring or negating the designation, are secondary to the requirement that the provisions of Part II of the RMA must be fulfilled by the proposal.<sup>1</sup>*

After considering these matters, the council needs to make recommendations to the requiring authorities under section 171(2) of the RMA which states:

- (2) *The territorial authority may recommend to the requiring authority that it –*
  - (a) *confirm the requirement:*
  - (b) *modify the requirement:*
  - (c) *impose conditions:*
  - (d) *withdraw the requirement.*

Reasons must be given for the recommendation under section 171(3) of the RMA. Refer to section 6 below for my recommendation.

## **AUTHORITY**

Mr Modher Adnan Abdulrazak Barakat and Mrs Yessar Ahmed Ali Barakat NoR1-20 consider it is unclear whether repurposing Franco Lane for walkway, cycleway and stormwater infrastructure complies with AT statutory functions and powers (ss 45 & 46 LGACA2009) and in purpose as requiring authority (s 47(1)). They consider the Proposed works are not expressly included in functions and powers (s 46). The Requiring Authority may wish to address that in the hearing legal submissions.

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<sup>1</sup> Estate of P.A. Moran and Others v Transit NZ (W55/99)

## 4.2 Effects on the environment

Section 6.1 of the AEE sets out Te Tupu Ngātahi’s approach to design and the existing and likely future environment at time of construction commencement. In essence, the A2B NoRs are to route protect necessary strategic transport corridors in urban environments. As established, the proposed designations (A2B NoRs 1 to 4A) and alteration to Designation 6717 (A2B NoR 4B) sought by the NoRs will protect a BRT corridor with high quality walking and cycling facilities.

Te Tupu Ngātahi developed an approach to assessing the likely future receiving environment as the Intensification Streamlined Planning Process, implemented by Plan Change 78 of the AUP:OP, which is underway but had not reached the hearing stage of the process. Plan Change 78 introduces the planning response to Policy 3 of the National Policy Statement on Urban Development (NPS:UD) and the Medium Density Residential Standards as required by the RMA.

The assessment of effects in this report considers the effects on the environment of allowing the requirements, having particular regard to the matters set out in 171(1)(a) to (d) of the RMA.

The effects on the environment and measures to manage these effects have been assessed holistically for the Project as far as practicable while considering that the Project traverses through changing environments. In the context of NoR 4B, it is recognised that some effects have not been identified within the extent of the proposed alteration, therefore no conditions for these matters are proposed. For example, currently there are no arboricultural effects as there are no trees protected under the District Plan within NoR 4B. Section 9 of the AEE sets out the assessment of effects on the environment of the Project. A summary of the specific effects as they relate to NoR 4B include:

<b>Technical assessment</b>	<b>Summary of effects</b>
<b>Transport</b>	No significant changes are proposed to individual property access other than changes to the access layout. An existing central flexible median barrier is provided along the centre of SH20B, therefore all properties are currently restricted to left turn in / out access. Changes required to existing property access will be addressed at future detailed design.
<b>Property</b>	Potential adverse effects on existing private properties and businesses have been reduced, where practicable through the development of the proposed designation boundary. However, the proposed NoR requires land to enable the construction, operation, maintenance and mitigation of the Project. There are three privately owned and one crown owned properties that are affected by the Project.
<b>Landscape</b>	NoR 4B includes a new southbound ramp structure from SH20B to SH20. However, considering that the existing structures associated with the state highway network in the vicinity of NoR 4B are already



	dominant elements within the landscape, and the visual amenity is relatively low within the adjoining industrial zoned landscape, the overall visual amenity effect is low.
<b>Flooding</b>	Stream crossings are key sites for potential flooding effects during construction. There is one stream crossing within NoR 4B – an existing culvert crossing on Puhinui Road, near Manukau Memorial Gardens. It is anticipated that there are no changes to existing flood levels as a result of the Project.

**Table 10: Summary of NoR4B Effects**

### 4.3 Positive effects

The positive effects identified in the AEE are almost exclusively transport related, which is expected given the nature of the works proposed. By providing for a dedicated BRT corridor and high quality walking and cycling facilities, the Project will have significant positive transport effects. In summary, Te Tupu Ngātahi states in the AEE section 9.1.1 that it will:

- Provide better access to jobs and education for southern and eastern Auckland and increase labour and customer catchments for business by 2038;
- Enable a significant increase in public transport usage in the area, increasing the public transport mode share and decreasing travel by light vehicles;
- Facilitate an uplift in public transport patronage through the corridor. The public transport mode share is expected to increase by 13% at Botany (southbound); 5% crossing SH1 (westbound); and 15% on SH20B (westbound).
- Improve integration with existing and future public transport networks;
- Serve as a key enabler for greater use of active transport modes;
- Integrate with Auckland Airport and Botany Town Centre.

Ultimately, the Project will connect to two major destinations and proposed rapid transit networks at each end.

As reporting planner, I agree with this assessment and acknowledge the positive effects of the NoRs as described above.

### 4.4 Adverse effects

The following discussion addresses the overall environmental effects within the specialist areas that they are addressed in the AEE, with additional matters at the end. The relevant council specialists' reports are referred to, and are provided in Appendix 1 to this report.

Submissions have also been considered and are referred to where relevant. The submission summaries (Appendix 3) allocate the submission issues to themes or specialists against which they are reported in the specialists' reports and within this s42A report, for example Noise and vibration, Traffic, Parking, Access. Subsection 4.4.11 *Property, land use, business and other effects* includes the themes Extent, Property value and land acquisition, Zoning and surplus land, Project scope, Business effects, Compromised activities, and Infrastructure. Submissions on lapse period and consideration of alternatives are reported in the Lapse Period and Alternatives sections of this report.

The AEE for the NoRs has included assessment of construction phase effects and operational effects. In this report, I have assessed various effects from both a construction phase perspective and operational phase together, in order to avoid repetition. The NoRs are primarily for route protection, and the construction effects are to be managed by detailed design, management plans and construction contracts at the time construction begins.

Subsequent to notification of the A2B NoRs, Te Tupu Ngātahi and council specialists have met to discuss the matters raised by the council's technical specialists in information requests to Te Tupu Ngātahi.

### **Consultation and Engagement**

Submissions were generally critical of consultation and engagement undertaken, or not sufficiently undertaken, by Te Tupu Ngātahi. This was exacerbated by the extended duration of the Project, its changes over time, and the complexity of the notified documentation. The Applicant's documentation shows significant consultation and engagement did occur. There are many people indirectly affected by the NoRs, who may not have realised the extent of potential effects until notification occurred, and due to the complexity of the application documents possibly not even then.

Heather Haylock NoR1-26; NoR2-53; NoR3-26; NoR4A-09; NoR4B-4 is concerned that consultation and engagement was not specifically targeted to those affected, including those whose houses and businesses were directly affected, and existing houses buffered by road-fronting houses which are to be removed.

Shane Robert Haylock NoR3-27 considers there has been a lack of real consultation, with affected landowners, a lack of overall public awareness, and some information provision but not engagement.

Jamie Khang Nguyen NoR1-36 (and on NoR2 and NoR3) considers significant amendments to the NoRs are required and consultation with Puhinui Primary School is required to ensure a cohesive solution that improves safety of walking children. Priority should be given to walking pedestrians.

Chris Horne (Telecommunications Submitters) NoR1-40, NoR2-75, NoR3-34, NoR4A-13, NoR4B-06 seeks that existing and future telecommunications infrastructure needs to be protected by the Project works and consultation. The consultation is to be required as part of the NUMP condition.

Brendon Liggett (Kāinga Ora) NoR1-41, NoR2-76, NoR3-35, NoR4A-15 seeks consultation and engagement. A high number of Kāinga Ora properties within the NoRs means engagement should begin early to address displacement effects. Kāinga Ora wishes to be involved in preparation of management plans and OPWs.

Mark Bishop (Watercare) NoR1-42 NoR2-77, NoR3- 36, NoR4A-16, NoR4B-08 seeks to be engaged before detailed design and during the ongoing design phases to identify opportunities to enable, or otherwise not preclude, the development of new infrastructure within the Project areas. This could involve the development of an "Infrastructure Integration Plan" prior to detailed design with third party infrastructure providers like Watercare (which can also be updated throughout construction of the Project) to ensure that the Project takes into account and appropriately integrates with potential future infrastructure like wastewater and water services.

Watercare supports in depth collaboration and consultation (including information, data sharing and identification of opportunistic works) across infrastructure providers on the development (or redevelopment) of urban environments and wishes to ensure that there is ongoing and timely engagement and collaboration as this Project develops.

Watercare seeks early engagement from the requiring authorities for future planning and construction works including prior to detailed design and during implementation of construction works. Early and fulsome engagement with Watercare, along with other infrastructure providers, can enable opportunities to plan and future-proof the delivery of assets to provide for well-functioning urban environments. For Watercare, this includes applying for, in a timely manner, 'Works Over' Approvals, in compliance with Watercare's 'Water Supply and Wastewater Network Bylaw 2015' (updated 2021). In my opinion, the NUMP and SCEMP are intended to meet Watercare's requirements.

Ministry of Education - Te Tāhuhu o te Mātauranga ('the Ministry') NoR1-43, NoR2-78, NoR3-37, NoR4A-17, NoR4B-09 seeks that the Construction Traffic Management Plan for each NoR shall include details of consultation (including outcomes agreed) with the applicant and schools within the NoR catchments, with regard to maintaining the safety of school students during construction. For any schools adjacent to the NoRs, before construction commences, the applicant must engage with the school to discuss and agree any potential noise mitigation during and after construction.

Kamlesh Rana & 33 Signatories NoR1-09, NoR2-19, NoR3-11, NoR4A-2, NoR4B-02 consider there has been inadequate consultation and engagement, particularly with individuals directly affected.

Colin Brent Robinson NoR3-03 considers the consultation and engagement has been inadequate.

Roy Sembrano NoR2-70 and McAlvin Sembrano NoR2-43 consider there has been insufficient consultation and time for submission. They need to know what options there are, and need more time to validate their concerns.

Andrea Mead & Dr Stephanie Mead NoR2-71 consider the consultation and engagement to be inadequate and to have breached natural justice and fair process principles, and the documents are confusing, unclear and inconsistent with each other.

Eke Panuku Development Auckland NoR2-72 has some concerns about the lack of detail and information provided in support of the NoR2. Eke Panuku does not support aspects of the NoR2 (as notified) because it would result in adverse effects that compromise its ability to deliver regeneration outcomes consistent with the High Level Project Plan, Framework Plan and the Manukau Sports Bowl Master Plan.

The proposed BRT route will impact a number of future streetscape projects within the Transform Manukau area including walking and cycling upgrades projects proposed to be delivered by Eke Panuku along Cavendish Drive, Sharkey Street, Amersham Way, Davies Avenue and Ronwood Avenue. It will also interact with several sites that Eke Panuku has identified for public realm upgrades (e.g. Manukau Sports Bowl site and Hayman Park) or future development (e.g. future development sites along Davies Avenue).

Quadrant Properties Ltd NoR2-73 and NoR3-32 (Property manager of 285 Puhinui Rd, 305 Puhinui Rd; 307 Puhinui Rd; 7 Ronwood Ave; 9 Ronwood Ave) considers there is an insufficient and unreasonable timeframe to review and provide submissions, and that the information lacks clarity and detail. Considers that the Requiring Authority should consult with property owners on any earthworks, batters or retaining walls affecting their properties.

Arena Williams MP NoR2-74 and NoR3-33 is concerned at the lack of information sharing with the community. Despite some information available at the community meeting in November 2022, and some official information online from December 2022, the first opportunity for most residents to see details was when households received the Notice of Requirement on 10 March 2023, which explained the impact on individual properties. There was no opportunity to input into the drafting process, and a lack of support for the submission process. Many residents raised with their MP their confusion about the complex technical language in the Notice, and the numerous large files attached to the Notice which were only available online. Lack of time for the submission process was also a concern, with a lapse period of 15 years proposed and only 20 working days to make a submission.

Alice Morris (Heritage New Zealand Pouhere Taonga) NoR3-31 is concerned that Section 11 Engagement of the AEE sets out the overview of the partner, stakeholder and public engagement that has been undertaken in informing and development of the NoR3 documents. This is of concern to HNZPT because of the extent of potential effect the proposed works within the designation corridor will have on known and potential historic heritage, and there has been no previous engagement with HNZPT.

#### **4.4.1 Transport effects**

##### **Application**

##### **A2B TRANSPORT EFFECTS APPLICANT'S ASSESSMENT**

Transport effects are addressed in section 9.3 of the AEE, and in the Assessment of Transport Effects ('ATE') prepared by Ana Lee of Te Tupu Ngātahi, dated 9 December 2022.

The ATE assesses the actual and potential effects of the future construction and operation of the Project as it relates to transport and recommends ways of managing these effects. Land use forecasts have inherent uncertainty. Currently, there is additional uncertainty around the likely outcomes and the rate and location of the higher density development enabled through the NPS:UD and Medium Density Residential Standards.

### **POSITIVE EFFECTS**

By providing for a dedicated BRT corridor and high quality walking and cycling facilities, the Project will have significant positive transport effects. In summary, Te Tupu Ngātahi states in the AEE section 9.1.1 that it will:

- Provide better access to jobs and education for southern and eastern Auckland and increase labour and customer catchments for business by 2038;
- Enable a significant increase in public transport usage in the area, increasing the public transport mode share and decreasing travel by light vehicles;
- Facilitate an uplift in public transport patronage through the corridor. The public transport mode share is expected to increase by 13% at Botany (southbound); 5% crossing SH1 (westbound); and 15% on SH20B (westbound).
- Improve integration with existing and future public transport networks;
- Serve as a key enabler for greater use of active transport modes;
- Integrate with Auckland Airport and Botany Town Centre.

Ultimately, the Project will connect to two major destinations and proposed rapid transit networks at each end.

### **ASSESSMENT OF OPERATIONAL TRAFFIC AND TRANSPORT EFFECTS**

There is currently a large gap in Auckland's rapid transit network, resulting in a lack of efficient and reliable public transport and mode choice in the southwest, south and east of Auckland for a growing population.

### **SAFETY**

The Ministry of Transport, Waka Kotahi and Auckland Transport have adopted the Vision Zero philosophy. Te Tupu Ngātahi considers the Project will result in positive effects on safety when compared to the existing corridor. The effects of the Project on safety consist of:

- Improved walking and cycling facilities along the full corridor including separation commensurate with an urbanised environment, resulting in improved protection for vulnerable road users;
- Improved walking and cycling crossing facilities along the full corridor, resulting in a safer environment for all road users; and
- Consequential reductions in the risk of Death or Serious Injuries (DSIs).

Overall, the Project is expected to provide a safer transport system which is likely to reduce the number of DSIs. Further complementary measures to achieve the desired safety outcomes are also to be identified as part of future detailed design.

### **PUBLIC TRANSPORT**

Te Tupu Ngātahi considers the Project will form an integral part of the future rapid transit network providing improved connectivity to key destinations of Botany, Manukau Central and the Airport. The effects of the Project on public transport effects consist of:

- Significantly better quality, frequency, and reliability of public transport services (BRT services);
- Good integration with the future public transport network and significantly improved north south connectivity and improved access to employment and social amenities; and
- Better and safer access provisions for pedestrians, cyclists, and mobility impaired passengers.

Overall, the BRT corridor is expected to respond to the existing and future demand on public transport. The Project will improve the connection of communities between centres, employment and existing rapid transit stations.

### **WALKING AND CYCLING**

Walking and cycling are key components of the transport network. There are several key attractors which suggest walking and cycling will significantly increase as the intensification envisioned through national policy direction is realised along the corridor. Te Tupu Ngātahi considers the effects of the Project on walking and cycling consist of:

- Reduced likelihood and exposure to potential crashes as it will enable safe movement for vulnerable road users along the corridor;
- Improved integration with the future walking and cycling network, resulting in improved north-south and east-west walking, and cycling connectivity;
- Environmental and health benefits because of increased active mode trips and reduced reliance on vehicle trips;
- Supporting growth surrounding the corridor, particularly around proposed BRT stations; and
- Improved safety for pedestrian and cyclists accessing employment and amenities.

The provision of high-quality walking and cycling facilities is expected to significantly improve safety for vulnerable users and significantly reduce the risk of DSIs. Overall, Te Tupu Ngātahi considers the provision of the BRT and walking and cycling facilities will provide a choice of transport options, reduce reliance on private vehicle trips and result in positive environmental and health benefits.

### **GENERAL TRAFFIC**

The Project generally retains all existing vehicle movements, except where the Project proposes to:

- Close the southern end of Davies Avenue in Manukau Central to general traffic to create a shared space for pedestrians between the various stations and MIT campus sites;
- Restrict right turns in or out of properties along the corridor to facilitate the centre-running BRT corridor; and
- Close the current access to the SH20B southbound on-ramp from Puhinui Road (east of SH1). This change is to accommodate the new ramp structure from SH20B to SH20, that removes the high-volume traffic movement from the interchange and allows reallocation of space to the BRT corridor.

Changes to traffic capacity are also expected where the Project proposes to:

- Remove left turn slip lanes at signalised intersections along the corridor to provide safe crossings for pedestrian and cyclists;
- Reduce the queuing lengths of some turning lanes to facilitate the BRT corridor and stations;
- Remove some right turn lanes where more than one currently exists at intersections, to facilitate the BRT corridor and stations; and
- Change from roundabouts to signalised intersections to facilitate safer crossings for pedestrians and cyclists, BRT pre-emption and access to stations.

These changes are expected to impact some existing traffic routes, resulting in the diversion of traffic to other roads. Notwithstanding this, Te Tupu Ngātahi's screenline assessment indicated that the number of vehicle trips undertaken within the surrounding network is not significantly affected by the Project.

With regard to intersection performance, Te Tupu Ngātahi considers the Project does not significantly worsen the performance of key intersections.

### **ACCESS AND PARKING**

The Project proposes to widen existing transport corridors to accommodate a BRT corridor and high quality walking and cycling facilities. As a result, existing access arrangements for properties located adjacent to the Project corridor will be affected.

Property access impacts range from minor changes to the physical access arrangements to prohibiting right turn movements into and out of properties. Access to properties by walking and cycling will be retained and generally enhanced through the proposed walking and cycling facilities.

The ability to access all properties by vehicles will be retained. The ATE therefore focuses on the restrictions to specific vehicle movements. Direct physical changes will be addressed by reforming/regrading accesses to relevant design standards.

Typically, left-in and left-out vehicle access movements are retained, and right turning vehicle movements are restricted. The restriction of the right turns will require vehicles to utilise alternative routes through the existing network to access properties with a left-in or left-out configuration. The potential effects of the restrictions were assessed by considering the length of alternative routes, along with the expected volume and familiarity of impacted users and any specific safety issues identified.

For properties within the proposed designation boundary, access impacts are not assessed. Where only a front lot is within the proposed designation boundary, adequate access to the rear lots is assumed. In addition to the above, the table below is Te Tupu Ngātahi's summary of the access impacts for each NoR.

NoR	Access impacts	Te Tupu Ngātahi Assessment
<b>NoR1</b>	An existing solid median runs through the centre of Te Irirangi Drive. Therefore, right turn access is currently restricted for all properties along this corridor. Left-in or left-out access is provided in some locations via adjoining service lanes.	There are no significant changes to property access in this section.
<b>NoR2</b>	<p>Te Irirangi Drive, Great South Road, Ronwood Avenue, Manukau Station Road and Lambie Drive provide an existing central solid median. However, there are gaps in the median enabling all-movement access into some, predominantly commercial properties.</p> <p>Some properties with existing all-movements access will be restricted to left-in and left-out access.</p> <p>No significant impacts were noted for loading and servicing arrangements.</p>	<p>Affected properties are required to use alternative routes for access. The adjacent road network within the surrounding area is relatively granular and therefore these alternative routes are considered achievable.</p> <p>The increase in expected travel distance is at most 2.5 km (approx. 3 to 4 minutes). Some properties have existing alternative access points.</p>
<b>NoR3</b>	<p>Currently all movements are possible at individual access points.</p> <p>All properties within NoR3 with access onto Puhinui Road will be restricted to left-in and left-out access.</p>	<p>Affected properties are required to use alternative routes for access.</p> <p>The general road network in the surrounding area is such that alternative routes are achievable and the increase in expected travel distance is at most 2.5 km (approx. 3 to 4 minutes).</p>
<b>NoR4A</b>	NoR4A – The proposed designation has no impact on property access	<p>There are no significant changes to property access in this section.</p> <p>An existing central flexible median barrier is provided along the centre of SH20B, therefore all properties are currently restricted to left turn in / out access.</p>
<b>NoR4B</b>	NoR4B – The proposed alteration to Designation 6717 has no impact on property access.	There are no significant changes to property access in this section.



		An existing central flexible median barrier is provided along the centre of SH20B, therefore all properties are currently restricted to left turn in / out access.
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**Table 4.4.1 1: Summary of Access Impacts**

In addition to the above, an assessment was undertaken to determine the severity of access impacts and whether the alternative routes were feasible to access sites. In summary, the assessment noted that:

- There are high volumes of retail customers that use the existing access to the Mitre 10 and Bunnings sites on Lambie Drive, where all vehicle movements are currently permitted. Restricting right turn access at this location may lead to unsafe manoeuvres at the Lambie Drive and SH20 motorway interchange; and
- The Papatoetoe Fire Station is a regionally important station that is required to operate with access in all directions and without delays to its emergency response times. It is therefore considered necessary for the Fire Station to be provided with adequate and safe all-movement access arrangements.

**PARKING**

On-street parking along the Project corridor is limited and includes approximately 140 on-street parking spaces. These spaces are all located in A2B NoRs 2 and 3. The Project will remove all existing on-street parking spaces along the corridor.

Existing on-street parking spaces within A2B NoR 2 typically serve nearby parks, commercial and retail centres and include pick up / drop off spaces for education facilities along the corridor, while the on-street spaces within A2B NoR 3 serve the nearby residential areas.

Te Tupu Ngātahi considers the Project will provide a high quality, attractive alternative to car use which will support mode shift from private vehicle use. It is anticipated that Auckland Transport will reconfigure the local bus network to maximise the new BRT corridor and provide more accessible opportunities for travel. The increased provision and use of public transport is considered likely to lead to less demand for on-street parking near commercial and retail areas, with adequate parking facilities such as paid car park buildings available within proximity, for use if necessary.

The removal of on-street parking is a consequence of intensification anticipated, and encouraged, by the draft Auckland Transport Parking Strategy which provides guidance regarding parking on arterial roads. This draft strategy seeks to repurpose kerbside space to improve safety and the movement of people, goods and services on key arterial roads.

In this regard, Te Tupu Ngātahi considers the removal of on-street parking proposed along the corridor is in accordance with the draft strategy, and the impacts of the removal of on-street parking can be managed through existing measures.

Existing on-site car parking provision for properties adjacent to the Project corridor will be affected. ATE Appendix A describes the properties affected and the number of parking spaces affected due to the Project.

The NPS:UD specifically removes most parking minimum requirements from the AUP:OP. In this regard, Te Tupu Ngātahi considers the removal of on-site parking spaces because of the Project does not infringe any relevant provisions. [However, I consider it may mean some sites will no longer comply with their resource consents]

Te Tupu Ngātahi considers the increased attractiveness and forecasted increase in demand for public transport is likely to lead to less demand for on-site parking for commercial and retail properties, with adequate parking facilities such as paid car park buildings available within proximity for use, if necessary.

## **FREIGHT**

The Project passes through and adjacent to some of Auckland's main industrial, warehousing and distribution areas. Te Tupu Ngātahi considers the provision of a BRT corridor, particularly on the SH20B section is likely to remove significant volumes of general traffic, thereby reducing congestion on the state highway and creating capacity for freight. Impacts on freight in the central commercial and residential areas are minimal and generally focussed around heavy vehicle accessibility as opposed to improved freight travel time.

## **CONSTRUCTION TRANSPORT EFFECTS**

Construction transport effects are described in AEE section 9.3.2. The assessment of construction effects associated with transport is based on the indicative construction method, construction programme and the nature of works proposed for each construction zone. There are several potential temporary adverse effects mainly linked to traffic management. Potential adverse effects on transport during the construction of the Project can be summarised as follows:

Temporary traffic diversions will be required to facilitate the construction activities as the proposed Project works will be adjacent to or on existing road corridors. The scale of temporary traffic diversions are largely dependent on the various stages and requirements of the construction activities (e.g. bridge construction). Te Tupu Ngātahi expects that full road closures and diversions will be required for some specific activities and adjustments to intersections may be required to accommodate diverted traffic.

Construction traffic movements to accommodate the movement of earthworks will likely result in an increase in traffic volume on construction routes used during the construction of the Project. Construction vehicles will include truck movements (heavy), light delivery and staff/contractor vehicle movements (light).

The provision of walking and cycling facilities is variable across the network. However, Te Tupu Ngātahi anticipates that the existing network of parallel collector roads can be used as alternative routes during construction. There will be road safety impacts from site access points, posted speeds and sight lines for construction. Any existing driveways that remain during construction will be required to have temporary access provision through temporary traffic management controls.

## **Submissions**

Mr Temperley reported on the submissions allocated to Traffic, Parking, Access, and to some on Extent and Project scope, which are also covered elsewhere in this s42A report. He grouped the submissions by transport issue in each NoR, rather than addressing them individually by name. Submissions have been received on the NoRs as follows:

<b>NoR</b>	<b>No. of submissions</b>	<b>Submissions including Transportation comments</b>
NoR 1: Botany Town Centre to Rongomai Park (Auckland Transport)	49	32 (70%)
NoR 2: Rongomai Park to Puhinui Station in the vicinity of Plunket Avenue (Auckland Transport)	82	57 (70%)
NoR 3: Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange (Auckland Transport)	39	18 (46%)
NoR 4a: SH20/20B Interchange to Orrs Road (Auckland Transport)	19	12 (63%)
NoR 4b: Alteration to Designation 6717 (Waka Kotahi NZ Transport Agency).	11	5 (45%)
<b>Total</b>	<b>199</b>	<b>124 (63%)</b>

The following sub-sections summarise the most common transportation related comments raised for each individual NoR in turn, along with Mr Temperley's comments.

### **NoR 1: Botany Town Centre to Rongomai Park**

<b>Transportation Issue Raised</b>		<b>No. Respondents</b>
Opposition to proposed walking & cycling provisions		10
Limit physical scope of BRT to central median/existing road reserve		9
Concern of adverse Parking effects		8
Concern relating to local access	Residential	6
	Commercial	6
	Education Activity	1
Concern over Construction traffic effects		6
Concern over traffic impact on Te Irirangi Drive		5

Concern over safety impact on Te Irirangi Drive	4
BRT should follow an alternative route, e.g. Cavendish Drive	3
BRT not warranted due to currently low public transport demand	2
Concern over impact on freight traffic movements	1
Concern over increased 'exposure' to main road ( <i>due to proximity of live traffic lanes to private property</i> )	1
Retain existing pedestrian over-bridge over Te Irirangi Drive	1

### **Transport Issue: Opposition to proposed walking & cycling provisions**

Work undertaken to develop the Airport to Botany BRT route identified a lack of safe and dedicated walking and cycling facilities within the study area, contributing to a poor uptake in travel by active modes. The proposed walking and cycling route running parallel to the BRT route was considered appropriate in providing a safe and attractive route for such travel by active modes, which includes walking and cycling journeys with onward connections to public transport.

### **Transport Issue: Limit physical scope of BRT to central median/ existing road reserve**

In addition to the actual BRT route following the central median of Te Irirangi Drive, other key elements of the project, such as walking and cycling facilities and key intersection improvements and alterations, are important elements of the project which contribute towards achieving key outcomes, such as catering for end-to-end journeys and effectively managing any adverse traffic effects.

Howick Local Board views include a request that the planners explore the use of Chapel Road as the key walking and cycling infrastructure to support the changes in Te Irirangi Drive with respect to the Airport to Botany Bus Rapid Transit Project as an alternative by completing the network along Chapel Road.

### **Transport Issue: Concern of adverse Parking effects**

The BRT is expected to reduce parking demand, as a result of modal shift to public transport. However, in instances where pre-consented parking is potentially to be removed from a site which sits within the NoR designation, in Mr Temperley's opinion proposed new parking and access layouts should be assessed against transport objectives and policies set out in the Auckland Unitary Plan under E27.2 and E27.3, to ensure that either appropriate parking stock is retained or else that appropriate alternatives are available. The Unitary Plan Transport Objectives and policies in question are as follows:

*E27.2 (3) Parking and loading supports urban growth and the quality compact urban form.*

*E27.2 (4) The provision of safe and efficient parking, loading and access is commensurate with the character, scale and intensity of the zone.*

*E27.3 Parking (3) Manage the number, location and type of parking and loading spaces, including bicycle parking and associated end-of-trip facilities to support all of the following:*

- (a) the safe, efficient and effective operation of the transport network;*
- (b) the use of more sustainable transport options including public transport, cycling and walking;*
- (c) the functional and operational requirements of activities;*
- (d) the efficient use of land;*
- (e) the recognition of different activities having different trip characteristics; and*
- (f) the efficient use of on-street parking.*

### **Transport Issue: Concerns relating to local access**

#### **General**

In the case of designated properties fronting arterial roads, such as Te Irirangi Drive, where removal of parking and access space is proposed, new parking and access layouts should be designed to comply with appropriate requirements of the Auckland Unitary Plan Transport Chapter. These include limiting the provision of new access points and the provision of appropriate on-site space for parking / loading and manoeuvring, to negate the need to reverse onto or off an arterial road.

#### **Residential**

Mr Temperley noted that most concerns raised in submissions relating to residential property access along the NoR1 route relate to dwellings which are accessed via parallel service lanes, which are to be retained and re-constructed as part of the BRT project. During the construction phase, appropriate Construction Traffic Management Plan conditions should ensure retention of local property access. Where front lots are designated, access to rear lots is to be established to an adequate standard.

#### **Commercial / Retail**

Commercial and retail premises along the route of NoR1 who expressed particular concerns in relation to vehicular access included the Botany Junction local retail centre and Botany South Retail Park, adjacent to the intersection of Te Irirangi Drive / Ormiston Road. Management of these premises requested the inclusion of conditions to ensure that local access routes serving these areas and parking provisions be retained both during construction and upon project completion. As the completed project does not affect access provisions to these sites from the public road network, nor reduce parking stock, Mr Temperley did not consider further conditions to be warranted. CTMP conditions for all NoRs include the requirement for *methods to maintain vehicle access to property and/or private roads where practicable, or to provide alternative access arrangements when it will not be*. Mr Temperley deemed this to be appropriate for addressing these submitter concerns.

### **Transport Issue: Concern over Construction Traffic Effects**

As noted above, CTMP conditions for all NoRs include the requirement for *methods to maintain vehicle access to property and/or private roads where practicable, or to provide alternative access arrangements when it will not be*. Other CTMP conditions refer to the management of heavy vehicle movements and mitigation against adverse effects such as dust and noise.

### **Transport Issue: Concern over Traffic Impact on Te Irirangi Drive**

While some submissions for NoR 1 raised concerns in relation to worsening traffic congestion, forecast congestion levels at key intersections specifically on Te Irirangi Drive are not expected to worsen significantly as a result of the BRT project. While some parts of the BRT route and adjoining roads to the southwest through Manukau are expected to experience higher levels of congestion, this is expected to be offset over the longer term by modal shift to the BRT, thus reducing car travel along the route and in turn, reducing congestion and improving journey time reliability.

### **Transport Issue: Concern over Safety Impact on Te Irirangi Drive**

Assessment of safety effects confirms that safety is expected to improve as a result of improved walking and cycling provisions, reduced vehicular travel demand due to modal shift to public transport and consequent reduced exposure of vulnerable road users to traffic safety risks. The use of signal control at intersections and removal of some 'Give Way' access points is also expected to contribute towards a safer environment. Improvements to pedestrian and cycling infrastructure as part of the project are also expected to improve perceptions of safety within the study area, which evidence suggest limits uptake of public transport and active modes of travel. Mr Temperley considers the outcome of the safety assessment is deemed to be acceptable.

### **Transport Issue: BRT should follow an alternative route, e.g. Cavendish Drive**

Alternative route options were considered during earlier phases of developing the project and found to not be as effective in fulfilling identified investment objectives, including access to jobs, learning, cultural and social activities, as well as journey time efficiency and reliability.

An alternative routing of the BRT via Cavendish Drive through Manukau, as specifically suggested by a number of submitters, would not provide effective penetration through the centre of Manukau, which includes a number of high generating retail and commercial activities, civic offices and public transport interchange opportunities, and increasing amounts of residential activity. More than half of all journeys that are expected to be undertaken using the new BRT route will have an origin or destination in Manukau, therefore effective penetration of the centre of Manukau is of key importance to the project.

### **Transport Issue: BRT not warranted due to currently low public transport demand**

Work undertaken as part of the Business Case for the BRT identified a gap in Auckland's Rapid Transit Network (RTN), in terms of the lack of rapid, efficient and reliable public transport and poor public transport mode share in south-west, south and east Auckland. The A2B BRT is one key project which contributes towards addressing this deficit. While existing bus services in the study area have been recognised as having relatively low patronage, future use of the new BRT is expected to primarily comprise new public transport usage either undertaking new journeys or transferring from car-based trips. Key factors to attracting new public transport users include the perceived attractiveness of BRT over regular bus transport, the ability of the BRT to offer efficient and reliable journey times and providing direct linkage to strategic and high trip generating locations and land-use activities.

### **Transport Issue: Concern over impact on freight traffic movements**

The Assessment of Transport Effects (ATE) Report undertaken to support the NoRs confirms that long term impacts on freight movements are expected to be minimal, with Te Irirangi Drive continuing to fulfil a strategic freight function. As noted above, the BRT is expected to contribute towards modal shift away from car travel, thus reducing congestion and improving journey time reliability along Te Irirangi Road for all vehicular traffic in the long term.

### **Transport Issue: Concern over increased 'exposure' to main road (due to proximity of Te Irirangi Drive live traffic lanes to private property)**

The BRT project does not in fact result in any relocation or realignment of the existing traffic lanes. As noted above, the BRT is expected to result in modal shift from existing vehicular traffic along the route, thus reducing traffic volume and noise along Te Irirangi Drive in the longer term.

### **Transport Issue: Retain existing pedestrian over-bridge over Te Irirangi Drive**

The rationale for converting all existing over-bridges on Te Irirangi Drive to at-grade pedestrian crossings is that it enables more convenient access by disabled people, vulnerable road users and active modes of travel, which Mr Temperley supports.

### **NoR2: Rongomai Park to Puhinui Station (in the vicinity of Plunket Avenue)**

<b>Transportation Issue Raised</b>		<b>No. Respondents</b>
Concern relating to local access	Residential	12
	Commercial	11
	Retail activity	13
	Place of Worship	1
	Emergency Services	1

	Education Facilities	1
Concern over Construction traffic effects		24
Concern of adverse Parking effects		20
BRT should follow an alternative route (e.g. Cavendish Dr)		16
Concern over Pedestrian access		11
Segregated bus route not needed / Poor patronage of existing bus services		9
Concern over Safety impact		9
Concern over Traffic impact		8
Consider alternatives, e.g. routing along alternative roads, one-way road, more traffic signals, etc. / Use of trains		8
Concern that too much land has been designated		5
Lack of consideration towards alternative sites, alternative construction methods, etc.		4
Concern over impact on freight traffic movements		3
Ensure appropriate locations for bus stop infrastructure and facilities for BRT		3
Limit physical scope of BRT to central median/existing road reserve		1

### **Transport Issue: Concerns relating to local access**

#### **General**

In the case of designated properties fronting arterial roads, such as Te Irirangi Drive, where removal of parking and access space is proposed, new parking and access layouts should be designed to comply with appropriate requirements of the Auckland Unitary Plan Transport Chapter. These include limiting the provision of new access points and the provision of appropriate on-site space for parking / loading and manoeuvring, to negate the need to reverse onto or off an arterial road.

#### **Residential**

During the construction phase, appropriate Construction Traffic Management Plan conditions should ensure retention of local property access. Where front lots are designated, access to rear lots is to be established to an adequate standard.



The ATE notes that some properties affected by the NoR will be limited to having left in / left out access only and will be required to use alternative routes for access, with estimated increases in travel distance of no more than 2.5 km. Some of the affected properties already have existing alternative access points serving more than one site boundary and providing alternative access means onto the wider network.

Residential locations encompassed by NoR2 which were the subject of concerns raised by submitters in relation to local access included multi-storey apartments in central Manukau, residential dwellings directly fronting Te Irirangi Drive and Puhinui Road and University of Auckland residences.

### Commercial & Retail

Commercial and retail premises along the route of NoR2 who expressed particular concerns in relation to vehicular access included the following particular clusters:

- Larger retailers along Lambie Drive, including the Manukau Supa Centa, Bunnings Warehouse, Mitre 10 Mega, Kmart;
- Larger retailers on Cavendish Drive, including Harvey Norman and Pak n Save;
- Food retailers at corner of Great South Road / Cavendish Drive intersection;
- Retailers adjacent to corner of Te Irirangi Drive / Great South Road;
- Westfield Manukau, in relation access from Ronwood Avenue adjacent to the proposed BRT Station on this frontage, including ensuring retention of emergency vehicle access;
- Retail and commercial premises fronting the northern side of Ronwood Avenue.

In response to concerns relating to access constraints resulting from left in / left out turning manoeuvres, the grid configuration of the adjoining road network within Central Manukau in Mr Temperley's opinion provides ample alternative opportunities for alternative vehicle movements in the absence of being able to undertake right turns into and out of roads used by the BRT.

The ATE confirms that where right turn access is removed at certain properties because of the centre running BRT corridor, access via alternative routes will have an additional resultant travel time of around 3 to 4 minutes. While this may be perceived as inconvenient by existing road users, the additional journey time is considered to be comparable with car-based journeys in other city centre and metropolitan centres such as Downtown Auckland, which are characterised by one-way systems and limitations on turning movements at key intersections.

In response to concerns to maintain access during the construction phase,

CTMP conditions for all NoRs include the requirement for *methods to maintain vehicle access to property and/or private roads where practicable, or to provide alternative access arrangements when it will not be*. I consider this condition to be acceptable.

### **Transport Issue: Concern over Construction traffic effects**

As noted above, CTMP conditions for all NORs include the requirement for *methods to maintain vehicle access to property and/or private roads where practicable, or to provide alternative access arrangements when it will not be*. Other CTMP conditions refer to the management of heavy vehicle movements and mitigation against adverse effects such as dust and noise. Mr Temperley has additionally recommended conditions in relation to network performance monitoring during the construction phase.

### **Transport Issue: Concern of adverse Parking effects**

The BRT is expected to reduce parking demand as a result of modal shift to public transport. However, in instances where pre-consented parking is potentially to be removed from a site which sits within the NoR designation, proposed new parking and access layouts should in Mr Temperley's opinion be assessed against transport objectives and policies set out in the Auckland Unitary Plan under E27.2 and E27.3, to ensure that either appropriate parking stock is retained or else that appropriate alternatives are available.

### **Transport Issue: BRT should follow an alternative route, e.g. Cavendish Drive**

Alternative route options were considered during earlier phases of developing the project and found to not be as effective in fulfilling identified investment objectives, including access to jobs, learning, cultural and social activities, as well as journey time efficiency and reliability. An alternative routing of the BRT via Cavendish Drive through Manukau, as specifically suggested by a number of submitters, would not provide effective penetration through the centre of Manukau, which includes a number of high generating retail and commercial activities, civic offices and public transport interchange opportunities. More than half of all journeys that are expected to be undertaken using the new BRT route will have an origin or destination in Manukau, therefore effective penetration of the centre of Manukau is of key importance to the project.

### **Transport Issue: Concern over Pedestrian Access to Property**

Where there are changes to access points, car park areas and manoeuvring areas within private property, provisions for pedestrian movements will also be considered on a site-by-site basis during the Outline Plan of Works phase.

### **Transport Issue: Segregated bus route not needed / Poor patronage of existing bus services**

Work undertaken as part of the Business Case for the BRT identified a gap in Auckland's Rapid Transit Network (RTN), in terms of the lack of rapid, efficient and reliable public transport and poor public transport mode share in south-west, south and east Auckland. The A2B BRT is one key project which contributes towards addressing this deficit.

While existing bus services in the study area have been recognised as having relatively low patronage, future use of the new BRT is expected to primarily comprise new public transport usage either undertaking new journeys or transferring from car-based trips. Key factors to attracting new public transport users include the perceived attractiveness of BRT over regular bus transport, the ability of the BRT to offer efficient and reliable journey times and providing direct linkage to strategic and high trip generating locations and land-use activities.

#### **Transport Issue: Concern over Safety Impact**

Assessment of safety effects confirms that safety is expected to improve as a result of improved walking and cycling provisions, reduced vehicular travel demand due to modal shift to public transport and consequent reduced exposure of vulnerable road users to traffic safety risks. The project is also expected to improve perceptions of safety within the study area, which evidence suggest limits uptake of public transport and active modes of travel. Mr Temperley considers the outcome of the safety assessment is deemed to be acceptable.

#### **Transport Issue: Concern over Traffic Impact**

While some submissions for NoR2 raised concerns in relation to worsening traffic congestion and disruption, forecast congestion levels at most key intersections along the BRT route itself are expected to worsen only slightly as a result of the BRT project. While some new congestion is expected across the wider network adjoining the BRT route, alternative arterial standard routes are available within this area which are considered to be acceptable for high volume strategic intra-urban routes. Moreover, the BRT is expected to encourage modal shift to reduce car travel along the BRT route, thus reducing congestion and improving journey time reliability.

#### **Transport Issue: Consider alternatives, e.g. routing along alternative roads, one-way road, more traffic signals, etc. / Use of trains**

Work undertaken prior to NoR lodgement undertook an assessment of alternatives, which followed a methodical approach towards assessing alternative means of fulfilling strategic objectives for a future public transport route to fulfil. This included alternative options for the route of NoR2 through central Manukau, through which key factors influencing the choice of preferred route included effective penetration of the metropolitan centre and the cost, social and environmental impacts associated with alternative routes, such as Putney Way.

Heavy and Light rail options were also considered but discounted, due to cost, environmental and visual impacts and excessive passenger capacity which was beyond the level of growth expected within the corridor.

#### **Transport Issue: Concern that too much land has been designated**

Concerns raised in submissions recognised consequent constraints on local access arrangements to sites as a result of excess land being designated through the NoR. Additional concerns included uncertainties over the future uses for the 'land buffers' created, with consequent concerns over visual and noise impacts, or else impacts of the land buffers being developed.

With respect to potential changes to site access and parking resulting from changes to designation boundaries, in the case of designated properties fronting arterial roads, where removal of parking and access space is proposed, new parking and access layouts should be designed to comply with appropriate requirements of the Auckland Unitary Plan Transport Chapter. These include limiting the provision of new access points and the provision of appropriate on-site space for parking / loading and manoeuvring, to negate the need to reverse onto or off an arterial road.

**Transport Issue: Lack of consideration towards alternative sites, alternative construction methods, etc.**

The four submitters in question raised particular concern in relation to disruption around larger retailers along Lambie Drive during the construction phase, as well as upon completion of the BRT.

Prospective CTMPs are considered by Mr Temperley to be an appropriate tool to determine suitable alternative traffic routes within the adjoining network during the construction phase, as well as ensuring that access is maintained to retail sites during the construction phase. Mr Temperley also recommended conditions in relation to network performance monitoring during the construction phase.

**Transport Issue: Concern over impact on freight traffic movements**

The ATE Report undertaken to support the NoRs confirms that long term impacts on freight movements are expected to be minimal, with Te Irirangi Drive, Lambie Road and Great South Road continuing to fulfil a strategic freight function. The BRT is expected to contribute towards improved journey time reliability along the arterial roads used by the BRT in the long term.

**Transport Issue: Ensure appropriate location for bus stop infrastructure and facilities for BRT on Ronwood Avenue, to the north of Westfield Manukau**

The Ronwood Avenue Station location was chosen to achieve good penetration of the business and retail areas within the centre of Manukau, whilst avoiding constraints associated with other locations. This includes the ability to maintain good pedestrian access to all stations as well as other essential vehicle access provisions.

**Transport Issue: Limit physical scope of BRT to central median/existing road reserve**

Other key elements of the project, such as the inclusion of walking and cycling facilities and key intersection improvements and alterations, are important elements of the project which contribute towards achieving key outcomes, such as catering for end-to-end journeys and effectively managing any adverse traffic effects.

**NoR 3: Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange (Auckland Transport)**

Transportation Issue Raised	No. Respondents
Concern over Construction traffic effects	10

Concern over safety impact		8
Concern over adverse parking effects		6
Segregated bus route not needed / Poor patronage of existing bus services		5
Concern that too much land has been designated		4
Concern relating to local access	Residential	2
	Commercial	1
	Education activity	1
BRT should follow an alternative route (e.g. Cavendish Dr)		3
Consider alternatives, e.g. routing along alternative roads, one-way road, more traffic signals, etc.		2
Recommend more mid block pedestrian crossing points		1
Concern over impact on freight traffic movements		1
Please contain all transport infrastructure provisions within existing designation		1
Proposed Station at corner of Lambie / Puhinui not needed		1

### **Transport Issue: Concern over Construction traffic effects**

CTMP conditions for all NoRs include the requirement for *methods to maintain vehicle access to property and/or private roads where practicable, or to provide alternative access arrangements when it will not be*. Other CTMP conditions refer to the management of heavy vehicle movements and mitigation against adverse effects such as dust and noise. Mr Temperley considers these conditions to be acceptable and he has additionally recommended conditions in relation to network performance monitoring during the construction phase.

### **Transport Issue: Concern over Safety Impact**

Assessment of safety effects confirms that safety is expected to improve as a result of improved walking and cycling provisions, reduced vehicular travel demand due to modal shift to public transport and consequent reduced exposure of vulnerable road users to traffic safety risks. The project is also expected to improve perceptions of safety within the study area, which evidence suggest limits uptake of public transport and active modes of travel. Mr Temperley considers the outcome of the safety assessment is deemed to be acceptable.

### **Transport Issue: Concern of adverse Parking effects**

The BRT is expected to reduce parking demand as a result of modal shift to public transport. However, in instances where pre-consented parking is potentially to be removed from a site which sits within the NoR designation, proposed new parking and access layouts should in Mr Temperley's opinion be assessed against transport objectives and policies set out in the Auckland Unitary Plan under E27.2 and E27.3, to ensure that either appropriate parking stock is retained or else that appropriate alternatives are available.

### **Transport Issue: Segregated bus route not needed / Poor patronage of existing bus services**

Work undertaken as part of the Business Case for the BRT identified a gap in Auckland's Rapid Transit Network (RTN), in terms of the lack of rapid, efficient and reliable public transport and poor public transport mode share in south-west, south and east Auckland. The A2B BRT is one key project which contributes towards addressing this deficit.

While existing bus services in the study area have been recognised as having relatively low patronage, future use of the new BRT is expected to primarily comprise new public transport usage either undertaking new journeys or transferring from car-based trips. Key factors to attracting new public transport users include the perceived attractiveness of BRT over regular bus transport, the ability of the BRT to offer efficient and reliable journey times and providing direct linkage to strategic and high trip generating locations and land-use activities.

### **Transport Issue: Concern that too much land has been designated**

Concerns raised in submissions included uncertainties over the future uses for the 'land buffers' created, due to concerns over visual and noise impacts, or as well as their development potential.

With respect to potential changes to site access and parking resulting from changes to designation boundaries, in the case of designated properties fronting arterial roads, where removal of parking and access space is proposed, new parking and access layouts should be designed to comply with appropriate requirements of the Auckland Unitary Plan Transport Chapter. These include limiting the provision of new access points and the provision of appropriate on-site space for parking / loading and manoeuvring, to negate the need to reverse onto or off an arterial road.

### **Transport Issue: Concerns relating to local access**

#### General

With respect to potential changes to site access and parking resulting from changes to designation boundaries, in the case of designated properties fronting arterial roads, where removal of parking and access space is proposed, new parking and access layouts should be designed to comply with appropriate requirements of the Auckland Unitary Plan Transport Chapter. These include limiting the provision of new access points and the provision of appropriate on-site space for parking / loading and manoeuvring, to negate the need to reverse onto or off an arterial road.

With the addition of the BRT proposal along Puhinui Road, all local properties fronting the road shall be limited to left in / left out access (with no right-turns permitted). The ATE states that resulting estimated increases in travel distance will be no more than 2.5 km. Some of the affected properties already have existing alternative access points via adjoining side roads to Puhinui Road to mitigate against this constraint.

#### Residential

While submissions commenting on residential access from Puhinui Road raised concern in relation to the safety, safety of vehicle access manoeuvres is expected to improve, as a result of access being limited to left in / left out only. While the additional vehicular travel distance may be inconvenient, adjoining side roads to Puhinui Road assist in providing alternative access opportunities in the absence of right-turn manoeuvres being permitted within Puhinui Road. Overall, the above arrangements are considered by Mr Temperley to be acceptable for mitigating against the adverse effects of the BRT route along Puhinui Road upon local residential access.

#### Commercial / Place of Worship

Concerns raised by a commercial activity and a place of worship related to access during the construction phase and concern over longer-term access being limited to left in / left out only. As noted above, this arrangement is expected to improve safety and while the additional vehicular travel distance may be inconvenient, it is expected to encourage take up of active modes of travel. Alternative arrangements for commercial vehicles to turn right into or out of Puhinui Drive are available via Noel Burnside Road / Cavendish Drive / State Highway 20.

NoR conditions require property access to be maintained during the construction phase, as part of a CTMP.

#### **Transport Issue: BRT should follow an alternative route, e.g. Cavendish Drive**

Alternative route options were considered during earlier phases of developing the project and found to not be as effective in fulfilling identified investment objectives, including access to jobs, learning, cultural and social activities, as well as journey time efficiency and reliability. An alternative routing of the BRT via Cavendish Drive through Manukau, as specifically suggested by a number of submitters, would not provide effective penetration through the centre of Manukau, which includes a number of high generating retail and commercial activities, civic offices and public transport interchange opportunities. More than half of all journeys that are expected to be undertaken using the new BRT route will have an origin or destination in Manukau, therefore effective penetration of the centre of Manukau is of key importance to the project.

#### **Transport Issue: Consider alternatives, e.g. routing along alternative roads, one-way road, more traffic signals, etc.**

Work undertaken prior to NoR lodgement undertook an assessment of alternatives, which followed a methodical approach towards assessing alternative means of fulfilling strategic objectives for a future public transport route to fulfil. This included alternative options for the route of NoR2 through central Manukau, through which key factors influencing the choice of preferred route included effective penetration of the metropolitan centre and the cost, social and environmental impacts associated with alternative routes, such as Putney Way.

Heavy and Light rail options were also considered but discounted, due to cost, environmental and visual impacts and excessive passenger capacity which was beyond the level of growth expected within the corridor.

**Transport Issue: Recommend more mid-block Pedestrian Crossing Points**

The proposals for NoR3 already include increased pedestrian crossing facilities, in the form of dedicated crosswalks integrated with newly signalised intersections. Mr Temperley considers these will offer adequate provision for pedestrian crossing demand at key locations.

**Transport Issue: Concern over impact on freight traffic movements**

The Assessment of Transport Effects (ATE) Report undertaken to support the NoRs confirms that modal shift onto the BRT will provide improved corridor capacity along Puhinui Road, which will improve reliability for freight movements.

**Transport Issue: Please contain all transport infrastructure provisions within existing designation**

Other key elements of the project, such as the inclusion of walking and cycling facilities and key intersection improvements and alterations, are important elements of the project which contribute towards achieving key outcomes, such as catering for end-to-end journeys and effectively managing any adverse traffic effects.

**Transport Issue: Proposed Station at corner of Lambie / Puhinui not needed**

Work undertaken as part of the Business Case for the BRT identified that the Lambie Drive Station is expected to serve an increased catchment area for people and jobs by 2048, having been identified as a key location for ‘Transit Oriented Development’ (TOD) opportunities. Its location also ensures optimum spacing between consecutive stations along the route.

**NoR 4A: NoR4A Notice of Requirement - SH20/20B Interchange to Orrs Road**

<b>Transportation Issue Raised</b>		<b>No. Respondents</b>
Concern over increased traffic noise		6
Consider alternatives, e.g. routing along alternative roads, one-way road, more traffic signals, etc.		4
Concern relating to local access	Residential	3
	Commercial	2
Concern over Safety impact		3
Concern over construction traffic effects		3



BRT should follow an alternative route (e.g. Cavendish Dr)	2
Recommend more mid-block pedestrian crossing points	1
Segregated bus route not needed / Poor patronage of existing bus services	1
Designation / project land-take is too excessive	1
Designation NOR4A Scope inadequate, needs to take account of new roading to serve new development off SH20B	1
Insufficient emphasis placed on quality Urban Design outcomes, including addressing severance, improving connectivity, levels of services, travel mode priority and amenity for pedestrians, cyclists and micro-mobility options	1
Designation NoR 4A Scope and Provisions inadequate with respect to Auckland Airport's future interests, including effects on transport network	1

**Transport Issue: Consider alternatives, e.g. routing along alternative roads, one-way road, more traffic signals, etc.**

Work undertaken prior to NoR lodgement undertook an assessment of alternatives, which followed a methodical approach towards assessing alternative means of fulfilling strategic objectives for a future public transport route to fulfil. This included alternative options for the route through central Manukau, through which key factors influencing the choice of preferred route included effective penetration of the metropolitan centre and the cost, social and environmental impacts associated with alternative routes, such as Putney Way.

Heavy and Light rail options were also considered but discounted, due to cost, environmental and visual impacts and excessive passenger capacity which was beyond the level of growth expected within the corridor.

**Transport Issue: Concerns relating to local access**

Residential

Concerns raised by residential submitters over NoR4A included increases in traffic with potential adverse safety effects, loss of residential amenity space as a result of widening into property boundaries and uncertainty over the use of any surplus land. These submissions appear to relate to addresses outside of NoR4A, although they were lodged against NoR4A, in some cases duplicating submissions lodged against other or all A2B NoRs.

Commercial

Concerns were raised in submissions by two commercial premises along the southern side of NoR4A, over the section where the BRT corridor deviates to the southern side. Concerns related to access and encroachment onto industrial yard space used for stationing heavy vehicles. Any new parking and access layouts should be designed to comply with appropriate requirements of the Auckland Unitary Plan Transport Chapter. This includes any parking, access and vehicle manoeuvring areas that are conditions of resource consents. The submitter concerns appear to be mainly that too much land is taken for the Project, and a desire to retain access directly to Puhinui Road / SH20B.

**Transport Issue: Concern over Safety Impact**

Assessment of safety effects confirms that safety is expected to improve as a result of improved walking and cycling provisions, reduced vehicular travel demand due to modal shift to public transport and consequent reduced exposure of vulnerable road users to traffic safety risks. The project is also expected to improve perceptions of safety within the study area, which evidence suggest limits uptake of public transport and active modes of travel. Mr Temperley considers the outcome of the safety assessment is deemed to be acceptable.

**Transport Issue: Concern over Construction traffic effects**

As noted earlier, NoR conditions require the retention of vehicle access to property during the construction phase and the provision of mitigation to manage adverse effects resulting from heavy vehicle movements, dust and noise. As confirmed at the end of Mr Temperley's review, he has additionally recommended conditions in relation to network performance monitoring during the construction phase.

**Transport Issue: BRT should follow an alternative route, e.g. Cavendish Drive**

These submissions on NoR4B are duplicates of submissions on the other NoRs near Cavendish Drive (NoR2 and NoR3).

**Transport Issue: Recommend more mid block pedestrian crossing points**

The proposals for NoR4A already include increased pedestrian crossing facilities, in the form of dedicated crosswalks integrated with newly signalised intersections. These are considered by Mr Temperley to offer adequate provision for pedestrian crossing demand at key locations.

**Transport Issue: Segregated bus route not needed / Poor patronage of existing bus services**

These submissions relate to the Project as a whole. Work undertaken as part of the Business Case for the BRT identified a gap in Auckland's Rapid Transit Network (RTN), in terms of the lack of rapid, efficient and reliable public transport and poor public transport mode share in south-west, south and east Auckland. The A2B BRT is one key project which contributes towards addressing this deficit.

While existing bus services in the study area have been recognised as having relatively low patronage, future use of the new BRT is expected to primarily comprise new public transport usage either undertaking new journeys or transferring from car-based trips. Key factors to attracting new public transport users include the perceived attractiveness of BRT over regular bus transport, the ability of the BRT to offer efficient and reliable journey times and providing direct linkage to strategic and high trip generating locations and land-use activities.

**Transport Issue: Designation / project land-take is too excessive (opposite Manukau Memorial Gardens)**

The road layout opposite the Memorial Gardens is required to accommodate additional traffic lanes in between key intersections as well as a deviation of the BRT to the south side of Puhinui Road and associated landscaping works. Mr Temperley considers that the land take for the proposed layout is appropriate to accommodate all of the required transport demands at this location.

**Transport Issue: Designation NoR4A Scope inadequate, needs to take account of new roading to serve new development in the Puhinui Precinct off SH20B**

While it is noted that new local roading connections are proposed to the south of Puhinui Road, as part of the future development of the Puhinui Precinct, these are considered by Mr Temperley to be outside the scope of the NoR, with the exception of intersection provisions that are already included in the NoR. Prices Road will not be able to be denied access to Puhinui Road / SH20B until alternative access is provided.

**Transport Issue: Insufficient emphasis placed on quality Urban Design outcomes, including addressing severance, improving connectivity, levels of services, travel mode priority and amenity for pedestrians, cyclists and micro-mobility options**

As noted earlier, the BRT includes provisions for other active modes, with a shared walking and cycling path along its length and signalised crossing points at key intersections. However, conditions proposed by the submitter (Kāinga Ora) in relation to site specific issues, including provisions for active mode users, are considered by Mr Temperley to be acceptable.

**Transport Issue: Designation NOR 4A Scope and Provisions inadequate with respect to Auckland Airport's future interests, including effects on transport network**

Auckland Airport's proposed conditions, to allow for adequate provisions to cater for the Airport's interests, with regards to operations and utilities, are considered by Mr Temperley to be acceptable from a transportation perspective, subject to acceptability of any future accessing and servicing provisions, in accordance with requirements of the Auckland Unitary Plan Transport Chapter.

**NoR4B: State Highway 20B – State Highway 20 to Auckland International Airport**

Transportation Issue Raised	No. Respondents
Concern over construction traffic effects	3

BRT should follow an alternative route (e.g. Cavendish Dr)	2
Designation NoR4A Scope inadequate, needs to take account of new roading to serve new development off SH20B	1
Designation NoR4B Scope and Provisions inadequate with respect to Auckland Airport's future interests	1

**Transport Issue: Concern over Construction traffic effects**

Mr Temperley would expect prospective CTMPs to address key construction related issues raised in submissions, including access to property, management of heavy vehicle movements and effects of dust and noise. As confirmed at the end of his review, Mr Temperley has additionally recommended conditions in relation to network performance monitoring during the construction phase.

**Transport Issue: Designation NOR4A Scope inadequate, needs to take account of new roading to serve new development off SH20B**

While it is noted that new local roading connections are proposed to the south of Puhinui Road, as part of the future development of the Puhinui Precinct, these are considered by Mr Temperley to be outside the scope of the NoR, with the exception of intersection provisions that are already included in the NoR. Prices Road will not be able to be denied access to Puhinui Road / SH20B until alternative access is provided.

**Transport Issue: Designation NOR4B Scope and Provisions inadequate with respect to Auckland Airport's future interests**

Auckland Airport's proposed conditions, to allow for adequate provisions to cater for the Airport's interests, with regards to operations and utilities, are considered by Mr Temperley to be acceptable from a transportation perspective, subject to acceptability of any future accessing and servicing provisions, in accordance with requirements of the Auckland Unitary Plan Transport Chapter.

• **The Ōtara Papatoetoe Local Board**

Ōtara Papatoetoe Local Board views are recorded in full in Appendix 4 Copies of Submissions and Local Board Views, and the **transport** parts are summarised as follows:

- Ōtara Papatoetoe Local Board supports moves for developing public transport connections and facilitating rapid, frequent, and reliable transport services in Auckland, and supports Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan and the aim of reaching net zero emissions by 2050.

- Ōtara Papatoetoe Local Board requests that quicker access routes to Auckland International Airport and other major destinations is considered, such as a direct road connection between Diorella drive to Puhinui Station and through to the airport, by bypassing Manukau Bus and Train Station for quicker road access to the airport.
- A footbridge that crosses Te Irirangi Drive from Rongomai Park to residential housing on the other side of Te Irirangi Drive is to be removed. The Ōtara-Papatoetoe Local Board is concerned about pedestrian access across the proposed roadworks from residential housing to the park and also to access the nearby High School. [The Project includes reducing the speed limit and creating additional mid-block crossings to improve access across Te Irirangi Drive].

### **Council Specialist assessment**

Transport effects have been reviewed by Mr Andrew Temperley, of Traffic Planning Consultants Limited, in a memo dated 18 May 2023, which is included in Appendix 1 to this report.

Key transportation issues which Mr Temperley identified through his review of the NoRs include the following:

- Impact of the new BRT corridor upon the safety of the existing urban road network upon completion
- Impact of the new BRT corridor upon the operation and congestion of the existing urban road network upon completion, including effects of traffic reassigning to other routes
- Impact of the new BRT corridor upon the operation and safety of the existing urban road network during the construction phase
- Impact of the new BRT corridor upon pre-consented parking provisions along the route.

Below is a breakdown of the above key issues according to the five separate NoRs. In summary, the key transportation issues identified are most prevalent in relation to NoRs 1 and 2, due to the more heavily trafficked urban environment along these sections of the BRT route.

<b>Notice of requirement (number &amp; name)</b>	<b>Issues</b>
A2B NoR1 Bus Rapid Transit – Botany to Rongomai Park	<ul style="list-style-type: none"> <li>• Increases in traffic on feeder routes into Te Irirangi Drive, such as Ti Rakau Drive and Botany Road.</li> <li>• Reduced traffic on Te Irirangi Drive (15% to 20%), with some traffic transferring onto Chapel Road.</li> <li>• Capacity reductions at key signalised intersections due to BRT corridor requiring space currently occupied by intersection turning lanes.</li> <li>• Consequent deteriorations in performance of key intersections.</li> <li>• Adverse effects of capacity reductions expected to be more significant during the construction phase, with no confirmed management plan or strategy for mitigating these effects.</li> </ul>

	<ul style="list-style-type: none"> <li>• Local property access limited to left-in / left-out movements only, due to solid median on Te Irirangi Drive.</li> <li>• No on-street parking spaces required for removal.</li> <li>• Loss of 46 off-street parking spaces from 3 commercial premises.</li> </ul>
<p>A2B NoR2 Bus Rapid Transit – Rongomai Park to Puhinui Station (in the vicinity of Plunket Avenue)</p>	<ul style="list-style-type: none"> <li>• Increases in traffic on a number of roads in Central Manukau, including Ronwood Avenue, Davies Avenue, Great South Road and Manukau Station Road</li> <li>• Capacity reductions at key intersections due to BRT corridor requiring space currently occupied by intersection turning lanes and conversion of some existing roundabouts to signalised intersections.</li> <li>• Consequent deteriorations in performance of key intersections.</li> <li>• Adverse effects of capacity reductions expected to be more significant during the construction phase, with no confirmed management plan or strategy for mitigating these effects.</li> <li>• Local property access limited to left-in / left-out movements only, due to solid median, necessitating some detours of up to 2.5 km. No significant impacts for loading / servicing arrangements.</li> <li>• Loss of 117 on-street parking spaces, which typically serve parks, retail / commercial centres and school pick-up and drop-off spaces.</li> <li>• Potential loss of 295 off-street parking spaces from 14 commercial, retail and other premises.</li> </ul>
<p>A2B NoR3 Bus Rapid Transit – Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange</p>	<ul style="list-style-type: none"> <li>• No notable changes in traffic flows along Puhinui Road, however an increase is observed in daily flows along Noel Burnside Road, due to changes at SH20 interchange.</li> <li>• Rationalisation of local access points along Puhinui Road to accommodate centre running BRT, turning movements limited to left-in / left-out only, resulting in some increases in local travel time of 3 to 4 minutes.</li> <li>• Loss of 21 on-street parking spaces for residential areas.</li> <li>• Potential loss of 20 off-street parking spaces from one industrial, one commercial and one religious land-use activity.</li> </ul>

<p>A2B NoR4A Bus Rapid Transit – SH20/20B Interchange to Orrs Road</p>	<ul style="list-style-type: none"> <li>• Capacity reductions and consequent increases in delay at key intersections as a result of the BRT are not expected to result in significant adverse safety and operational effects.</li> <li>• Proposed designation has no effect on local property access</li> </ul>
<p>A2B NoR4B Alteration to Designation 6717 State Highway 20B – State Highway 20 to Auckland International Airport (Waka Kotahi NZ Transport Agency)</p>	<ul style="list-style-type: none"> <li>• No on-street parking spaces required for removal.</li> <li>• No off-street parking spaces identified for removal.</li> </ul>

**Table 4.4.1 2: Key Transportation Issues**

Te Tupu Ngātahi’s ATE assesses the transportation and safety effects of the NoRs utilising the following key tools:

- The Crash Analysis (CAS) database system
- The Auckland Macro Strategic Model (MSM)
- A traffic assignment model (Airport to Botany Traffic Model)
- A strategic active mode (walking / cycling) model (SAMM)
- SIDRA modelling to understand changes in intersection operation and efficiency
- A more detailed AIMSUN operational model of the BRT corridor.

On the basis of the ATE’s analyses, the ATE concludes that the completed BRT will result in safety benefits and positive benefits for public transport, walking and cycling. Overall, Mr Temperley accepts this conclusion and the methodology followed to reach it.

However, in terms of effects on general traffic, the ATE’s assessment indicates a number of adverse effects resulting from the implementation of the BRT, such as reductions in intersection capacities through removal and curtailing of approach lanes. This is expected to result in increased intersection delays and traffic reassigning to alternative routes in some cases. Te Tupu Ngātahi refer to modal shift resulting from the completed BRT proposal as the primary means by which these effects will be mitigated. However, this will not be the case during the construction phase for the project, and at the time of writing, Te Tupu Ngātahi have not undertaken a capacity assessment of the adjoining road network which account for potential traffic effects during the construction phase.

The transport conditions for the NoRs include the preparation of Construction Traffic Management Plans (CTMPs) to avoid, remedy, or mitigate the adverse construction traffic effects as far as practicable. However, Mr Temperley remains concerned that insufficient evidence is available to understand the scope and nature of problems to be addressed during the construction phase and appropriate means for managing travel demand during this time.

The proposed removal of pre-consented parking along the route could, in Mr Temperley's opinion, result in adverse effects. However, Te Tupu Ngātahi have not assessed the effects of parking removal, citing the removal of parking minimums from the AUP:OP through NPS:UD as justification for considering the effect to be 'relatively minor'. Mr Temperley considers Unitary Plan Policies set out under E27.3 still apply and he considers that this should constitute a basis on which to undertake a full assessment of the effects of parking removal.

Consideration of alternative proposals and means of fulfilling the strategic objectives of the proposed BRT route were the subject of predecessor work, including the Single Stage Business Case for Airport to Botany Rapid Transit and 20 Connect. In addition, the A2B AEE includes an Assessment of Alternatives, which recaps alternative options and alternative routes previously considered for fulfilling investment objectives. Overall, Mr Temperley is satisfied that due consideration has been given to alternative means of fulfilling the identified strategic objectives of the NoRs and that the BRT proposal in its current form is appropriate.

Further to reviewing the NoRs and supporting information for the future Airport to Botany BRT, with regards to acceptability in transportation engineering terms, Mr Temperley considers that overall the proposal would serve as an effective means to fulfil key transport objectives, such as modal shift to public transport and improved provisions for walking and cycling.

However, he remains concerned in relation to the potential for adverse traffic effects on the wider network as a result of the following key factors:

- The lack of assessment in relation to the proposed removal of pre-consented parking
- The lack of assessment in relation to adverse traffic effects during the construction phase, which will result in significant capacity reductions, with no identified means of effectively managing travel demand prior to the completion of the proposed BRT.

Mr Temperley would consider that adverse effects resulting from the removal of pre-consented parking can be appropriately remedied and mitigated against through the implementation of an appropriate management plan.

While he acknowledges the role of prospective CTMPs to identify future mitigatory measures for construction traffic effects, Mr Temperley considers insufficient evidence has been provided to understand the scope and nature of problems to be addressed during the construction phase. He recommends further work to establish minimum network performance parameters to be achieved during the construction phase, including maximum increases in journey time and traffic volumes along key routes. In the event of thresholds being exceeded, Travel Demand Management (TDM) measures should be implemented.

Mr Temperley considers appropriate performance monitoring measures for the construction phase should include, but not be limited to the following:

- Monitoring of travel times along key routes, including:
  - i The route of the BRT
  - ii Parallel running arterial roads and state highways



- iii Other roads in the adjoining network that are subject to significant traffic impact as a result of the construction works.

Appropriate thresholds for excessive travel times to be determined based on average travel times surveyed over the selected routes prior to the commencement of works.

- Monitoring of traffic volumes along the above routes
- Levels of Modal shift or uptake of any Travel Demand Management (TDM) measures.

Mr Temperley considers that options for TDM measures could include temporary Park and Ride bus services, such as those operated during construction of the Eastern Busway.

### **Planning assessment**

Mr Temperley considers that overall the proposal would serve as an effective means to fulfil key transport objectives, such as modal shift to public transport and improved provisions for walking and cycling.

However, he remains concerned in relation to the potential for adverse traffic effects on the wider network as a result of the following key factors:

- The lack of assessment in relation to the proposed removal of pre-consented parking
- The lack of assessment in relation to adverse traffic effects during the construction phase, which will result in significant capacity reductions, with no identified means of effectively managing travel demand prior to the completion of the proposed BRT.

#### **Lack of assessment in relation to the proposed removal of pre-consented parking;**

The proposed removal of pre-consented parking along the route could, in Mr Temperley's opinion, result in adverse effects. However, TTN have not assessed the effects of parking removal, citing the removal of parking minimums from the AUP:OP through NPS:UD as justification for considering the effect to be 'relatively minor'. Mr Temperley considers Unitary Plan Policies set out under E27.3 still apply and he considers that this should constitute a basis on which to undertake a full assessment of the effects of parking removal.

Mr Temperley would consider that adverse effects resulting from the removal of pre-consented parking can be appropriately remedied and mitigated against through the implementation of an appropriate management plan.

I consider we will need to focus on the environmental effects of the loss of parking, rather than the AUP:OP objectives and policies which are being adjusted by plan changes to implement the NPS:UD. The principal environmental effect operationally is likely to be inability to accommodate the vehicles generated by the use of a site, which will promote modal shift, and possibly have an adverse effect on viability of the land use, which would be a compensation and injurious affection matter. That principal environmental effect is exacerbated during the construction phase, when more parking is unavailable, construction workers may require parking, and there may need to be temporary carparking areas created. After construction is completed some of the works area is likely to be returned for use within a site.

I consider that a management plan may appropriately remedy and mitigate adverse effects resulting from the removal of pre-consented parking, but apart from the provision of temporary carparking areas during construction the issue is more likely to be a matter of assistance with third party resource consent applications and variations to consents, and Public Works Act compensation and possibly injurious affection claims. I am additionally recommending that greater use be made of retaining walls at the NoR edges, in preference to the generally proposed batter slopes. Particularly in business areas, that would reduce the extent of the NoRs and leave more of the operational parts of adjacent sites intact. There would still be a construction works NoR extent greater than the final operational road, but even that should be less extensive than the lodged NoRs.

#### Construction traffic effects and approval of the CTMP

While he acknowledges the role of prospective CTMPs to identify future mitigatory measures for construction traffic effects, Mr Temperley considers insufficient evidence has been provided to understand the scope and nature of problems to be addressed during the construction phase. He would recommend further work to establish minimum network performance parameters to be achieved during the construction phase and consideration towards approaches for managing travel demand during the construction phase.

Based on Mr Temperley's advice, I support that the conditions should require the CTMP to be reviewed by the council. I note that the designations are intended to have very long lapse periods so they will be authorising works where the environment (and affected communities) is likely to change significantly from what exists (or could be reasonably predicted) now. Accordingly, the management plans will need to ensure that effects are avoided, remedied or mitigated appropriately in the context of the receiving environment that exists at that time. It is important, in my view that there is thorough oversight and a check (by the council) to ensure that the plans do manage effects appropriately. NoR1 – 4A Condition 9 Management Plans 9(a)(vi) and NoR4B Condition 7(d)(3) require that any management plan shall be submitted as part of an Outline Plan, a process which allows the council to review and request changes.

The CTMP conditions and OPWs need to include a requirement for network performance monitoring measures for the construction phase, including, but not limited to the following:

- Monitoring of travel times along key routes, including the route of the BRT, parallel running arterial roads and state highways, and other roads in the adjoining network that are subject to significant traffic impact as a result of the construction works. Appropriate thresholds for excessive travel times to be determined based on average travel times surveyed over the selected routes prior to the commencement of works.
- Monitoring of traffic volumes along the above routes
- Levels of Modal shift or uptake of any Travel Demand Management (TDM) measures
- Consideration of any temporary carparking areas provided during construction phase.

Based on the advice provided by Mr Temperley, I as the reporting planner consider that the adverse traffic effects can be avoided, remedied or mitigated, subject to an amended set of conditions being imposed for NoRs1 – 4B. The amendments associated with this recommendation are set out in Appendix 5 to this report.

#### 4.4.2 Noise and vibration effects

##### Application

##### **A2B NOISE AND VIBRATION APPLICANT'S ASSESSMENT**

Construction noise and vibration effects are addressed in AEE section 9.10 and in the Assessment of Construction Noise and Vibration Effects ('**CNVE**'), prepared by Siiri Wilkening of Te Tupu Ngātahi, and dated December 2022.

The Assessment of Construction Noise and Vibration Effects contains predictions for construction noise and vibration levels carried out using the method recommended in the NZS 6803 in accordance with the AUP:OP. The methodology included:

- Reviewing noise and vibration emission data for each construction task based on equipment data previously measured for similar activities;
- Predicting the noise and vibration levels from construction based on relevant standards and guidelines; and
- Determining setback distances where compliance with the relevant standards can be achieved.

The Assessment of Effects on Traffic Noise sets out predictions of road traffic noise carried out using the method in NZS 6806 in accordance with rule E25.6.33 in the AUP:OP. The assessment of effects was twofold and considered NZS 6806 noise criteria categories as well as the anticipated noise level change with and without the Project.

##### **CONSTRUCTION NOISE EFFECTS**

Te Tupu Ngātahi states that construction noise and vibration is generally higher than that of ongoing continuous activities. Therefore, while effects are based on how people are likely to react to equivalent internal noise levels, construction is a temporary activity with a finite duration. Most people are more likely to accept increased noise (or vibration) levels if durations and magnitudes are well communicated prior to works occurring.

Overall, Te Tupu Ngātahi considers predicted noise levels for the majority of works will be able to comply with the relevant daytime standards, which means that effects are generally acceptable inside neighbouring buildings. Where high noise activities are likely (e.g. demolition of close by buildings, piling of bridges or retaining walls, and earthworks), these activities would occur for short periods only close to any one building, generally extending over a few days at most, before moving along the alignment or being completed.

Some limited night-time works are likely to be required for the construction of the new bridge across SH1, the SH20B to SH20 ramp structure and the construction of the BRT bridge across the NIMT at Puhinui Station as road closures and a block of line (i.e. temporary closure of the railway line) would be required.

Overall, Te Tupu Ngātahi considers that effects will generally be reasonable for the majority of activities.

## **CONSTRUCTION VIBRATION EFFECTS**

Te Tupu Ngātahi initial predictions indicate that many buildings in A2B NoRs 1, 2 and 3 are within 15 metres from the closest extent of the works. This means that a large number of buildings will likely be affected by construction vibration. The effects are anticipated from:

- The demolition of the first row of dwellings in NoR 2 and 3;
- Road preparation – the use of vibratory rollers along the full corridor are close to dwellings fronting the existing road corridors; and
- The construction of bridge piles and retaining walls.

For the majority of dwellings, Te Tupu Ngātahi considers compliance with the 5 mm/s PPV limit to avoid any building damage can be achieved. However, vibration levels may exceed the amenity criterion of 2 mm/s PPV for brief durations while the vibratory roller passes. This is likely to occur for one or two days at a time and will be similar to what is expected for road resurfacing.

A small number of buildings in A2B NoRs 2 and 3 are predicted to receive vibration levels above 5 mm/s PPV without mitigation, and the construction methodology will be reviewed at the time to avoid any exceedance.

## **TRAFFIC NOISE EFFECTS**

Operational noise effects are addressed in AEE section 9.10 and in the Assessment of Traffic Noise Effects ('TNE'), prepared by Siiri Wilkening of Te Tupu Ngātahi, and dated December 2022.

In accordance with NZS 6806, the Project only consists of "altered roads".

Existing Protected Premises and Facilities (**PPFs**) within 100 m from the proposed new road edge were assessed based on NZS 6806. The number of PPFs for each NoR is shown in Table 7 below:

<b>NoR</b>	<b>Number of PPFs</b>
<b>A2B NoR 1</b>	628
<b>A2B NoR 2</b>	768
<b>A2B NoR 3</b>	380
<b>A2B NoR 4A</b>	5
<b>A2B NoR 4B</b>	0

**Table 4.4.2 1: Number of PPFs in each NoR**

The individual traffic noise level predictions were compared with the noise criteria categories A, B and C of NZS6806, and the anticipated noise level change due to the Project was calculated.

Overall, the change in noise level was predicted by Te Tupu Ngātahi to be minimal due to the traffic generation itself. However, many dwellings are intended to be removed to facilitate the Project. The removal of the first row of houses will result in noise level changes to PPFs behind the dwellings that will be removed.

Mostly, those PPFs would still receive noise levels within Category A (the desired noise criteria category), however, there is a small number of PPFs where noise levels are predicted to be in Category B and Category C. These PPFs are located in NoRs 1, 2 and 3.

For the vast majority of PPFs (1,536 of the total of 1,781 PPFs assessed across all NoRs), Te Tupu Ngātahi considers the noise level changes due to the Project will be insignificant (ranging from +2 to -2 dB).

### **RECOMMENDED MEASURES TO AVOID, REMEDY OR MITIGATE NOISE AND VIBRATION EFFECTS - CONSTRUCTION**

Te Tupu Ngātahi considers that, in order to determine and implement the Best Practicable Option (BPO) management of construction noise and vibration, and reduce, as far as practicable, any exceedance of the noise or vibration standards a CNVMP should be prepared. The CNVE sets out the minimum level of information that must be provided in the CNVMP. This includes:

- Description of the works and anticipated equipment/processes;
- Hours of operation, including times and days when construction activities would occur;
- The construction noise and vibration standards for the Project;
- Identification of receivers where noise and vibration standards apply;
- Management and mitigation options, including alternative strategies adopting the BPO where full compliance with the relevant noise and/or vibration standards cannot be achieved;
- Methods and frequency for monitoring and reporting on construction noise and vibration, including:
  - Updating the predicted noise and vibration levels based on the final methodology and construction activities;
  - Confirming which buildings are to be subject to a pre and post building condition survey;
  - Identifying appropriate monitoring locations for receivers of construction noise and vibration;
  - Procedures to respond to complaints received on construction noise and vibration, including methods to monitor and identify noise and vibration sources;
  - Procedure for responding to monitored exceedances; and
  - Procedures for monitoring construction noise and vibration and reporting to the Auckland Council Consent Monitoring officer
- Procedures for maintaining contact with stakeholders, notifying of proposed construction activities, the period of construction activities, and handling noise and vibration complaints
- Contact details of the site supervisor or Project manager and the Requiring Authority's Project Liaison Person (phone, postal address, email address);
- Procedures for the regular training of the operators of construction equipment to minimise noise and vibration as well as expected construction site behaviours for all workers;

- Identification of areas where compliance with the noise and/or vibration standards will not be practicable and where a Site-Specific Construction Noise and/or Vibration Management Schedule will be required;
- Procedures for how remedial works will be undertaken, should they be required as a result of the building condition surveys; and
- Procedures and timing of reviews of the CNVMP.

### **RECOMMENDED MEASURES TO AVOID, REMEDY OR MITIGATE TRAFFIC NOISE EFFECTS - OPERATIONAL**

To mitigate traffic noise effects, Te Tupu Ngātahi recommends that a low noise road surface is applied across NoRs 1, 2, 3 and 4a (this surface is currently in place for the existing carriageways across all NoRs). This mitigation is considered to be the most effective noise mitigation measure for existing PPFs but will also benefit any future PPFs.

For NoRs 1, 2, 3 and 4a, it is noted that Auckland Transport adheres to road resealing guidelines which sets out the requirements where asphaltic concrete (low noise road surface) must be used. The requirements include minimum traffic volumes and consideration of adjoining land use.

For PPFs where noise levels are predicted to be within Category C, such as in NoR 1, acoustic boundary fences may reduce noise levels to be within Category A or B. However, such fences may not be practicable if the existing slip lanes along Te Irirangi Drive are repurposed into integrated lane for walking and cycling and stormwater infrastructure (as set out in Section 9.8). As such, the use of barriers for traffic noise mitigation should be reassessed at the time of construction, to confirm if an acoustic boundary fence represents the BPO.

### **Submissions on noise and vibration effects**

Submissions have been received in relation to the following noise and vibration matters:

- Effects on residential amenity
- Building structural effects of construction vibration
- Effects on businesses
- Consultation on mitigation of noise and vibration effects

### **RESIDENTIAL AMENITY**

More exposure to road noise and vibration (operational) - P Thambirajah & T Paskaranandavadivel NoR1-08; Renaissance Apartments NoR2-21.

Traffic noise worsened by tree removal - Samir Chalabi NoR1-24.

Traffic noise increased - Taruna and Saurabh Tiwary NoR1-25; Ramon Lopez NoR2-32, Alice Lopez NoR2-33; McAlvin Sembrano NoR2-43; Roy Sembrano NoR2-70; Andrea Mead & Dr Stephanie Mead NoR2-71;

Traffic noise increased, will need on-site mitigation - Firdosh and Kashmira Sigantoria NoR2-79;

Traffic noise and road noise increased if house in front removed - Tasman Accounting Trustee Ltd Attn: Mark and Marta Stevens NoR1-35; Fa'ana Campbell NoR2-48;

Traffic noise and vibration, worsened if front buffer houses are removed - Heather Haylock NoR1-26, NoR2-53, NoR3-26, NoR4A-09, NoR4B-04.

Road noise and vibration already bad, will increase - Monish Anish Prasad NoR2-08; Minakshi Mohanlal NoR2-36, NoR3-22, NoR4A-06; Avisha Mohanlal NoR2-37, NoR2-69, NoR3-21, NoR4A-05; Abhisekh Mohanlal NoR2-68; NoR3-30, NoR4A-12.

Noisy environment of bus station - Theresa Tusa NoR1-12.

Noisy residential amenity - Huaxiu Wang NoR1-14.

Construction noise and vibration effects on residential amenity in Franco Lane - Mr and Mrs Barakat NoR1-20.

Construction noise and vibration effects on residential amenity - Anil Rodrigues NoR1-20; Lynette Henderson NoR2-12; Renaissance Apartments NoR2-21; Lee Mee Then NoR3-16; Michelle Joy Te Hira NoR3-19.

Compensation required for construction noise effects - Litao Chen NoR1-03.

### **BUILDING STRUCTURAL EFFECTS OF CONSTRUCTION VIBRATION**

Construction noise and vibration effects on apartment building structure - Savitri Devendra NoR2-26.

Construction vibration effects on building structure Australasia Branch Office of Jehovah's Witnesses NoR2-29 and Jehovah's Witnesses – Manukau Kingdom Hall Trust NoR3-17 (places of worship); Michelle Joy Te Hira NoR3-19 (brick house).

### **BUSINESS EFFECTS**

Construction noise and vibration effects on businesses, disruption, customer amenity Business East Tamaki NoR1-23; The Legends Property Limited NoR2-18; Business Manukau NoR2-38; Kmart NZ Holdings Limited NoR2-39; Bunnings Ltd NoR2-46; PSPiB/CPPIB Waiheke Inc NoR2-49; Auckland Body Corporate Limited NoR2-50; General Distributors Limited (Countdown) NoR2-51; Harvey Norman Properties NZ Limited and Harvey Norman Stores Pty NZ Limited NoR2-54; Wiri Business Association Inc NoR3-13.

Construction and operational noise and vibration effects on sensitive users at AUT Auckland University of Technology NoR2-22; Minister of Education NoR2-23.

Operational noise post-construction effects on place of worship Australasia Branch Office of Jehovah's Witnesses NoR2-29; Jehovah's Witnesses – Manukau Kingdom Hall Trust NoR3-17.

### **CONSULTATION**

Kāinga Ora requests that they are directly consulted as part of the preparation of the CNVMP and CNVMS Kāinga Ora NoR1-41, NoR2-76, NoR3-35, NoR4A-15.

Construction noise and vibration effects on schools and students, RA (Requiring Authority) must engage with schools in noise and vibration mitigation design Ministry of Education NoR1-43, NoR2-78, NoR3-37, NoR4A-17, NoR4B-09.

### **HEALTH EFFECTS**

Health and safety effects of the operational noise (traffic). Kāinga Ora requests a condition requiring operational noise levels to not exceed 55 dB LAeq beyond the boundaries of the designation or, where exceeded at a sensitive receiver, mitigation is provided; amend Condition 28 (Low Noise Road Surface) to require the use of low noise and vibration road surfaces, such as an Asphaltic mix surface, for all road surfaces within this designation Kāinga Ora NoR1-41, NoR2-76; NoR3-35, NoR4A-15.

Construction noise health effects and wants relocation during construction Colin Brent Robinson NoR3-03.

### **Specialist assessment**

Noise and vibration effects have been assessed by Mr Jon Styles, of Styles Group, in a memo dated May 2023, which is contained in Appendix 1 to this report.

### **RELEVANCE OF THE CURRENT BPO ASSESSMENT**

The Assessment sets out the results of the evaluation of the BPO for road noise mitigation based on the receiving environment that physically existed in 2022.

### **CURRENT ASSESSMENT IS INDICATIVE ONLY**

Other than confirming that a low-noise pavement (AC-14) will continue to be used on the roads, the Assessment only makes tentative suggestions for other mitigation measures, such as barriers or acoustically treating houses.

An example of this can be found in relation to NoR1 at page 24 of the Assessment where it states: *“Barriers are unlikely to be generally practicable, particularly in NoRs 2 and 3 where access to many individual residential sites will need to be maintained. However, NoR1 may make use of barriers if practicable, as dwellings are set back from the road.”*

Mr Styles considers this demonstrates that the Requiring Authority is not committing to any particular noise mitigation measures at this time, other than the low-noise pavement. This is reflected in the Requiring Authority’s proposed conditions, which do not mandate the implementation of any operational noise mitigation measures other than the type of pavement.

Mr Styles understands that the Requiring Authority seeks a lapse period of 15 years for the designations, other than for NoR4B, which is an alteration to a designation already given effect. It is clear that the current BPO assessment is intended to be revised closer to the time that the final design is confirmed, potentially 10-14 years from now.

Mr Styles considers that the Assessment is intended to provide an indication of the noise levels and mitigation measures based on the indicative design and the receiving environment that existed in 2022. He notes that the Assessment does not make it clear that this is the case.



## **THE REQUIRING AUTHORITY'S PROPOSED CONDITIONS FREEZE THE RECEIVING ENVIRONMENT TO 2022**

The Requiring Authority's proposed conditions 30 to 32 (and others) require that a BPO assessment is repeated, prior to construction, using the final design present at that time, but referring only to the PPFs that have been evaluated in 2022. The future BPO assessment is intended to confirm whether the PPFs that exist in 2022 'change category' under the final design.

It is not clear to Mr Styles whether the Requiring Authority's proposed conditions are intended to include situations where 2022 dwellings have been demolished or removed and replaced with new dwellings, or whether the conditions are referring strictly to the PPFs that existed in 2022, ignoring any modifications or replacements, even if a replacement dwelling is on the same approximate footprint.

Mr Styles considers that the proposed conditions essentially 'freeze' the receiving environment in time to 2022. The Requiring Authority's proposed conditions fail to recognise the receiving environment that might exist in the year that the final design is undertaken, potentially 15 years from now. Mr Styles understands that changes to the physical nature of the existing receiving environment are likely to include substantial intensification and re-building on residential land, and may include fewer vehicle accesses directly on to the arterial roads.

Mr Styles has summarised the Requiring Authority's proposed process below:

1. 2022 - Conduct an assessment of the BPO and road noise effects based on the indicative project design and the PPFs that exist in 2022. This is the current Assessment. The current Assessment allocates a noise exposure 'category' (A, B or C) to each PPF in accordance with the guidance in NZS6806:2010. All PPFs that existed in 2022 are listed in a Schedule and assigned their noise exposure 'category'.
2. 2023 – Seek designation conditions that require a future BPO Assessment to determine whether the noise level predictions for the final design will result in a change to the 'category' at any PPF that existed in 2022.
3. 2024 – 2038 – Conduct the final project design. Prepare an updated noise model and BPO assessment for the final project design to predict the noise level at all PPFs that existed in 2022 and that still exist at the time of the final design. Use the updated noise model to determine whether any 2022 PPFs that still exist change category. Investigate the BPO for reduction of noise at the 2022 PPFs that might still exist. Ignore the receiving environment that exists at the time and ignore the implementation of the BPO in areas where the 2022 PPFs may no longer exist. This approach also ignores any opportunities to mitigate noise effects that might exist in the future as the design changes and the receiving environment changes in terms of development and potentially zoning and zone provisions.

## **PROJECT OBJECTIVES**

Table 1 of the AEE sets out the RMA project objectives. Objective (f) is clear:

*“Enable the provision of public transport and active mode corridors in a manner that:*

*(f) Integrates with the existing and planned future environments.”*

Mr Styles agrees with this objective. He considers that it is vital that the final design of the project includes noise mitigation measures that integrate with the existing and planned future environments as well as it can. Mr Styles considers that the Requiring Authority's proposed conditions that freeze the receiving environment to what existed in 2022, and ignores the future receiving environment directly contravenes this project objective.

### **RECOMMENDED APPROACH**

Mr Styles considers that the Requiring Authority's proposed conditions should be revised to require a BPO assessment prior to construction in the future that recognises the receiving environment as it exists at the time.

This approach will ensure that:

1. The future BPO assessment recognises all 2022 PPFs that are still present when the final design is confirmed;
2. The future BPO assessment properly recognises the future planned environment / receiving environment as it will exist at the time of the future assessment; and
3. The future BPO assessment will be capable of taking advantage of any opportunities that may arise between now and the final design process. These opportunities may arise from new land development or changes to the AUP. One example could be a situation where numerous sites are developed in a way that avoids the need for vehicle access to the A2B alignment, making noise barriers practicable and worthwhile.

Mr Styles considers that only minor modifications to the Requiring Authority's proposed conditions are required. There are two ways the conditions could be structured:

1. The conditions could simply require a fresh assessment of the BPO for the final design for all PPFs according to the receiving environment that is present prior to construction; or
2. The conditions could maintain reference to the schedule of PPFs and their respective categories that existed in 2022, and then add in a requirement for the future BPO assessment to determine the BPO for the environment that is present prior to construction starting.

### **DRURY ARTERIALS NORS**

Mr Styles was heavily involved in the Council hearing process for the Drury NoRs in the vicinity of Jesmond and Waihoehoe Roads in 2021 and 2022.

The Requiring Authority proposed fundamentally the same approach in that case, with conditions that required future BPO assessments to be conducted only for whatever remained of the PPFs that were present in 2021. The Council hearing commissioners rejected the Requiring Authority's proposed conditions and recommended a set that promoted better integration with the future planned environment.

## **Planning assessment**

### **RESIDENTIAL AMENITY**

Traffic levels are predicted to drop in the longer term, if a significant mode shift occurs to active mode and public transport. With the BRT mainly central-running, along the road median, and the general traffic lanes remaining where they are currently, there should be less operational traffic and road noise after construction. There may be additional noise around the bus stations.

Removing front houses that currently buffer the houses behind them, will expose those rear-now-front houses to higher noise levels, at least during construction. In my opinion the buffering effect is likely to be reinstated when the land surplus to the Project is redeveloped with new frontage buildings.

Some acoustic barriers may be needed during construction, to protect street-front houses from construction noise effects. Construction vibration effects are to be managed by the CNVMP and should have a maximum of low amenity effects. The NoR conditions provide for pre-construction condition assessments where there is a possibility of construction vibration effects.

### **BUILDING STRUCTURAL EFFECTS OF CONSTRUCTION VIBRATION**

The NoR conditions provide for pre-construction condition assessments where there is a possibility of construction vibration effects. The CNVMP will identify where further work may be needed, such as underpinning building foundations if excavation and construction vibration will be near building foundations or existing retaining walls.

### **BUSINESS EFFECTS**

There will be construction disruption effects, including noise and vibration. The NoRs and their conditions are designed to minimise those effects, and particularly the management plan conditions (CEMP, CTMP, CNVMP, SCEMP and DRMP). Some of those management plans require consultation with stakeholders in designing construction works and effects management.

### **CONSULTATION**

The CNVMP and CNVMS (and CTMP) will require consultation with stakeholders and affected parties, including Kāinga Ora and the schools in each NoR's catchment.

### **OPERATIONAL NOISE AND VIBRATION CONDITIONS**

Based on the advice of Mr Styles, the noise and vibration effects receiving environment should be modelled closer to the time of the Project commencing, to respond to the PPFs still existing then, the new built environment and changed road access environments that may be being planned and created then (which may include opportunities for acoustic barriers and acoustic building treatments), and the operational transport environment emerging at that time. That will allow a revision of the operational noise and vibration BPOs and upgraded performance targets.

Mr Styles considers that only minor modifications to the Requiring Authority's proposed conditions are required, with two ways the conditions could be structured:

1. The conditions could simply require a fresh assessment of the BPO for the final design for all PPFs according to the receiving environment that is present prior to construction; or
2. The conditions could maintain reference to the schedule of PPFs and their respective categories that existed in 2022, and then add in a requirement for the future BPO assessment to determine the BPO for the environment that is present prior to construction starting.

I support Mr Styles' recommendations and recommend that the Suggested Condition Sets and Project design be revised so that the BPOs and the design can respond to the future planned environment as at the time of lodging the OPW.

### **CONSTRUCTION NOISE AND VIBRATION CONDITIONS**

I consider that the proposed construction noise and vibration conditions should be confirmed, including the requirement for a CNVMP to be provided with the OPW. Some provision may be needed for temporary relocations to avoid noise and health effects.

### **Conclusion**

Based on the advice provided by Mr Styles, I as reporting planner consider that the adverse noise and vibration effects can be avoided, remedied or mitigated, subject to an amended set of conditions being imposed for NoRs 1 to 4A and NoR4B. The amendments associated with this recommendation are set out in Appendix 5 to this report.

### **Other construction effects**

This topic covers construction effects other than Construction Traffic and Construction Noise and Vibration. These other effects are generally air quality and dust, visual amenity, disruption of complex sites, access and parking, fences and gates needing reinstatement, and traffic safety for school students using heavy construction vehicle routes. For most of the specific submitter addresses affected there is a Plan or Map excerpt in the Summary of Submissions Appendix 3, searchable by NoR, submission number and name.

### **Other construction effects submissions**

Litao Chen NoR1-03 seeks that during construction their property is protected, provision is made for privacy, and the fence is rebuilt. If front yard space is taken for the project, or fences and gates are damaged or removed during construction, they will need to be compensated or replaced.

Colin Brent Robinson NoR3-03 at 207 Puhinui Road is concerned at dust, construction disruption, and noise health effects and seeks relocation during construction. There is the opportunity for short-term respite and relocation in certain circumstances, within the proposed NoR conditions, and the construction management plans and the DRMP and SCEMP are required to manage those effects to the extent practicable.

## **COMPLEX SITES**

BPG Developments Limited NoR1-10 (Manager of Botany Junction Local Centre and Botany South retail centre) and NoR2-24 (Manager of 613-615 Great South Road Manukau Junction) seek avoidance or minimisation of adverse construction effects on the operation of the sites, including maintenance of road accesses and on-site parking areas, and a CTMP prior to the commencement of construction in the vicinity of the Sites, applying to the road network in the immediate vicinity of the Sites is prepared by the requiring authority in consultation with the Submitter; provided to Council, along with details of the Submitter's observations and comments on the plan, if any; and approved by the Council.

National Mini Storage Limited NoR1-21 seeks earthworks and batters to be designed in consultation with property owners to minimise impacts. Earthworks to be managed to minimise construction effects (including dust) and include protection/cleaning of affected buildings.

Auckland University of Technology (AUT) NoR2-22 and Minister of Education NoR2-23: AUT has substantial plant and underground infrastructure within the NoR, which need protecting from construction effects. There will be visual construction effects, but it is unclear where and how they will be managed. The Campus area required for construction is unclear.

The Legends Property Limited NoR2-18 is concerned at other construction effects on soil contamination and air quality. Construction management plans will need to manage those effects.

Manukau Supa Centa: Kmart NZ Holdings Limited NoR2-39, Bunnings Limited NoR2-46, PSBIB/CPPIB Waiheke Inc NoR2-49 (owner of Manukau Supa Centa 55 Lambie Drive) and Auckland Body Corporate Limited NoR2-50 are concerned at other construction effects such as amenity and dust. Harvey Norman Properties NZ Limited and Harvey Norman Stores Pty NZ Limited NoR2-54 considers there will be construction-related effects associated with the works including access disruption from Lambie Drive, construction noise and vibration, and potential parking of construction vehicles within the car park, and these additional effects will also adversely impact the operation of, and trade within, the Supa Centa. Centuria Capital (NZ) Limited NoR2-59 (has Bunnings as tenant) considers there will need to be site-specific construction management plans to manage construction effects.

Michael Sheridan (Van Den Brink 652 Limited 654 Great South Road and 5 Te Irirangi Drive) is concerned at the road widening involving shifting of two existing free-standing signs, and seeking that designation works should include that sign relocation, or compensation. General Distributors Limited NoR2-51 is concerned at adverse visual and amenity effects, including as a result of effects from construction activities (eg noise and dust, traffic) surrounding Countdown Manukau at 654 Great South Road.

Deanna Self (A.M. Self Limited) NoR2-41 at 652 Great South Road considers the extension of the designation would result in the existing signage along the front of the site having to be moved. She considers this should be compensated for, and a suitable alternative signage location ensured as part of the proposed works. The designation boundary from Te Irirangi Drive extends over the car wash as well as most of the access areas and 12 of the carparks to the north of the service station building. It is noted that these areas may only be required during construction, however the submitter is concerned with respect to the impact this may have on the operation of the site during works. Whilst it is understood that the NoR is currently just seeking to achieve route protection, the conditions of the designation should ensure that construction operations are agreed with the site owner and operator prior to works, that disruption to the business is minimised, and that upon completion of works the designation is removed from the parts of the site no longer required, as quickly as possible. There are underground services located within the site between the existing footpath on Great South Road and the edge of the service court roof. The proposed works will need to ensure that these can be moved to a suitable location to maintain functionality of the site.

Renaissance Apartments Body Corporate 316863 NoR2-21 (18 Ronwood Avenue) is concerned about other construction effects on access to and from the site and building and parking, visual amenity and dust. Savitri Devendra NoR2-26 (18 Ronwood Avenue) is concerned that dust nuisance is a health and safety issue. Lee Mee Then NoR3-16 is concerned at environmental pollution during construction. The construction management plans and the DRMP and SCEMP are required to manage those effects to the extent practicable.

### **AIR QUALITY DUST AND PARTICULATE**

Anil Rodrigues NoR1-22 is concerned at effects of air quality, dust and particulate air contamination exposure for their asthmatic child.

Business East Tamaki NoR1-23, Business Manukau NoR2-38 and Wiri Business Association NoR3-13 are concerned at dust effects on health and amenity.

Heather Haylock NoR1-26; NoR2-53; NoR3-26; NoR4A-09; NoR4B-4 has concerns about construction noise and vibration, and also on dust. The Requiring Authority is not seeking discharge to air consent for dust, so will need to manage dust to ensure it does not become a nuisance. In relation to construction effects, Ms Haylock considers there is the opportunity for short-term respite and relocation in certain circumstances, within the proposed NoR conditions, but she suspects that it is going to be quite a difficult process to prove the need for such measures.

### **ROAD SAFETY HEAVY CONSTRUCTION VEHICLES**

Gemma Hayes (Ministry of Education) NoR1-43, NoR2-78, NoR3-37, NoR4A-17, NoR4B-09 identifies potential road safety effects from heavy construction vehicles. The Ministry appreciates Supporting Growth Te Tupu Ngātahi's willingness to prioritise student safety during construction. There are other schools nearby the A2B NoRs aside from Puhinui School that should also be considered in the CTMP. These other schools, which are all located near the proposed BRT corridor have the potential to be affected by heavy construction traffic given they are located on a potential construction traffic route. The Ministry requests that these schools be included in the CTMP and all heavy construction vehicles must avoid these schools at peak pick-up and drop-off times to maintain a safe environment for students to walk and cycle to school.

### 4.4.3 Urban design effects

#### Application

#### **A2B URBAN DESIGN EFFECTS APPLICANT'S ASSESSMENT**

Urban design effects are addressed in AEE section 9.8 and in the Urban Design Evaluation report ('UDE'), prepared by Stuart Bowden of Te Tupu Ngātahi, and dated 9 December 2022.

An Urban Design Evaluation (UDE), included in Appendix E of Volume 4 has been undertaken for the Project based on the principles set out in the Urban Design Framework (appended to the Urban Design Evaluation). The UDE provides urban design commentary on the concept design of the proposed BRT corridor and recommends how urban design opportunities and outcomes could be considered in future design stages of the Project. Te Tupu Ngātahi considers that the opportunities and outcomes identified are either required to mitigate the effects of the Project (mapped as outcomes in purple in Appendix E of Volume 4) or could be considered by Auckland Transport, Waka Kotahi or other parties at future stages of design and development but are not required to mitigate effects of the Project (mapped as opportunities in blue in Appendix E of Volume 4). [Perhaps disagree that some or all of the opportunities are not optional, but should be considered as offset mitigation]

Overall, the UDE concluded that the Project is generally supportive of the principles in the Urban Design Framework. In summary Te Tupu Ngātahi considers that the opportunities and outcomes for the Project include:

- Permeability of the corridor for active modes that addresses cross corridor connectivity, modal priority and permeable access to destinations such as centres, transport interchanges, open spaces and community;
- Legibility, connectivity demands, safety and modal priority for active modes should be addressed for intersections across the Project corridor. Demonstration of specific intersection responses to ensure connectivity between the proposed BRT stations, local centres and other community facilities;
- An urban interface approach within the corridor that:
  - Provides an appropriate interface to the existing local, neighbourhood and town centres and enables buildings and spaces to positively address and integrate with the BRT corridor and stations;
  - Responds to the spatial character of proposed centre environments and supports quality public realm infrastructure;
  - Demonstrates the proposed modal hierarchy, built form interfaces and arrangements at the proposed BRT station locations;
  - Recognises the transition of residential densities and provides a corridor interface that supports permeable pedestrian access, responding to the changing built form interface and spatial character; and

- Supports the integration of the proposed BRT stations and surrounding land uses.
- The identification, development and integration of key local community and identity drivers across the corridor with the Project;
- Supporting direct access to existing local, neighbourhood and town centres, schools, community functions and open spaces;
- A Crime Prevention Through Environmental Design (**CPTED**) review of the Project which includes (but is not limited to):
  - Under bridge environment
  - Public access walkways
- In future design stages, Mana whenua will be invited as Partners to provide input into relevant cultural, landscape and design matters including how desired outcomes reflect their identity and values;
- A landscape plan that considers recommendations from the landscape, arboricultural, flooding and ecological assessments including:
  - Street tree and stormwater raingarden and wetland planting;
  - Construction compound and private property reinstatement and treatment of batter slopes;
  - Integration of Otara Creek, Puhinui Stream, Waokauri Creek and Pūkaki Creek and their tributaries; and
  - Reinforcing the wider vegetation patterns of the local landscape and create connections to proposed greenways and the wider walking and cycling network.
- Integration of the stormwater management devices to achieve an appropriate interface with adjacent land uses, specifically where wetlands are proposed in areas zoned for high density.
- Measures to demonstrate that the project has adapted to the changing climate such as reducing urban heat island effects in future urbanised areas, supporting modal shift and accounting for flood hazard risks.

The measures to achieve these outcomes are to be confirmed at the detailed design stage and form part of the ULDMP as a condition on the proposed designations.

### **Submissions on urban design matters**

Submissions have been received in relation to the following urban design matters and are addressed in Ms Mein's Urban Design response:

- Urban design
- Spatial extent of the designation and timely removal (Project-wide);
- Property access;



- Residential amenity including loss of privacy;
- Gradient of land and batter slopes or retaining walls adjoining the road corridors (Project-wide);
- Connectivity and severance.

### **Specialist assessment**

Urban design effects have been assessed by Ms Lisa Mein, Consultant Urban Design Specialist, Mein Urban Design and Planning Limited, in a memo dated 9 May 2023, which is contained in Appendix 1 to this report.

### **URBAN DESIGN**

Ms Mein reviewed both the draft and lodged Urban Design Evaluation (UDE) and concluded that overall, she supports the approach and methodology. In particular, she supports the opportunities and outcomes identified for the project and considers these to be necessary, as the project develops through the design stages, to ensure appropriate outcomes for safe and attractive urban environments.

At this stage, only a concept level of design has been undertaken, as the intent is focused on route protection. Overall, the full length of the route proposed is supported by Ms Mein as the most appropriate route from an urban design perspective to safeguard for public transport and active modes.

There are existing issues related to connectivity and severance along the corridor, such as along Te Irirangi Drive (NoR1 and part of NoR2), some of which will be improved by the opportunities and outcomes the development of the BRT affords and some which may be exacerbated by it, particularly within NoR 3. These are set out in the relevant sections. As stated within the UDE, the proposed corridor alignment and function can support direct access to existing neighbourhood, local, and town centres and open spaces, but these require further development at detailed design stage to support connectivity and reduce severance.

Ms Mein supports the UDE summary of what should be included within the ULDM to address project specific outcomes for the NoRs, including:

- a landscape plan supporting the principles of Auckland's Urban Ngāhere Strategy, that incorporates recommendations from other specialist assessments including private property reinstatement and treatment of batter slopes, and integrates Ōtara Creek and its tributaries where the corridor intersects with the existing Blue Green network;
- responses to climate change including landscape enhancement, reinforcing vegetation patterns, stormwater management and flood mitigation;
- opportunities for input from Mana Whenua;

- recognition of local community, identity drivers, and sense of place, particularly at key local landmarks and places of interest such as Sancta Maria Catholic Primary School and College, Ormiston Town Centre, Botany Junction shopping centre and the parks and reserves within NoR1, Manukau Sports Bowl and Velodrome, AUT South Campus, MIT, Manukau Station, Manukau Centre and Hayman Park, Puhinui Station precinct, Cambria House, Neighbourhood shops at Wyllie and Noel Burnside Roads and Ranfurly Road, local schools, Manukau Memorial Gardens frontage and entry and Waokauri Creek.
- CPTED review to address underpasses and overpasses as well as bridge environments and park frontages;
- addressing the potential changes of land use and density as a result of the opportunities both the zoning and the BRT provide;
- attention to the urban interface with the corridor to ensure this responds to the spatial character and supports a quality public realm, in particular at the proposed BRT stations within the corridor, the proposed bridge connecting BRT station at Puhinui station and interchange, and proposed ramp structure from SH20B to SH20;
- ensuring this enhances connectivity and legibility at the micro and macro scales in particular at existing and proposed crossing points and at the many intersections along the route; and at the vehicular entry to Manukau Memorial Gardens
- demonstration of integration of residual land, in particular where these are immediately adjacent to the station locations.

### **NOR 1 – BOTANY TOWN CENTRE TO RONGOMAI PARK**

The locations of the three BRT stations are depicted in the corridor at Smales Road, Accent Drive and Ormiston Road at the Botany Junction shopping centre. Initially Ms Mein queried why there was not an additional station at Rongomai Park, given it is a key attractor along the route. However, she accepts that it can be served by the stations at Ormiston Road/Botany Junction and Dawson Road.

There are four signalised intersections, three corresponding to the BRT stations and one at Bishop Dunn Place in the vicinity of Sancta Maria Catholic School. No new intersections are proposed. This seems to Ms Mein like a lost opportunity to improve the connectivity to the existing environment across Te Iirangi Drive, particularly in the immediate vicinity of Rongomai Park which is a well-used recreation reserve.

Ms Mein is concerned that vehicle access is maintained to properties along the slip lanes parallel to Te Iirangi Drive, during construction. The CTMP needs to include that function.

The landform is relatively gentle contour throughout NoR1 punctuated by the Ōtara and Pakuranga Creeks. From the General Arrangement Plan it appears that where fill batter is proposed to level the landform, this is located around the creek corridors within public land. Similarly, raingardens are proposed along the edges of the route largely around the creek corridors within public land, with the exception of a raingarden within the wider Sancta Maria school site. From an urban design perspective Ms Mein considers these are the appropriate locations for fill batters and raingardens as they can be integrated with the existing landscape and vegetation.

## **URBAN DESIGN SUBMISSIONS ON NOR1**

### **URBAN DESIGN**

Kāinga Ora NoR1-41 considers further information or details are required which may alter some of the conditions. Kāinga Ora has expressed concerned with the validity of the advice note associated with Condition 13 (UDLMP) regarding front yard setbacks. This is primarily a planning issue; however, it does affect the relationship of built form to the road and therefore is of interest from an urban design perspective. Kāinga Ora has requested amendments to that condition, and Ms Mein concurs. Kāinga Ora considers greater emphasis should be placed on the importance of quality urban design outcomes, including addressing issues of severance and improving connectivity, levels of service, travel mode priority and amenity for pedestrians, cyclists and micro-mobility options. Kāinga Ora is concerned that adequate mitigation for existing and likely severance effects have not been fully considered, through the use of additional mid-block crossings and potentially more stations. Ms Mein is of a similar view as she considers additional crossings and / or stations would facilitate improved connectivity.

### **EXTENT**

A large number of submitters are concerned with the extent of widening proposed as part of the designation. This is not solely an urban design issue; however, the take of land also affects the built form and public realm outcomes at the edge of the corridor and therefore Ms Mein addresses the submissions that raise issues pertinent to urban design.

Submitters Kawaljeet Singh NoR1-02 and Danny Charanjit Singh NoR1-17 have sites at 53 Te Irirangi Drive and 1 Belinda Avenue respectively, located within NoR 2. Submission NoR1-02 questions why their property is affected. Looking at the extent of the designation, it appears only the front portion of 53 Te Irirangi is affected by the designation, and the designation also includes land within Manukau Sports Bowl on the northern side of Te Irirangi Drive. 1 Belinda Avenue is one of the properties to the south of Rongomai Park identified as a wetland. Ms Mein questions whether the stormwater infrastructure in this location could be wholly located within public land to minimise negative effects on individual properties owners.

National Mini Storage NoR1-21 is seeking no encroachment of existing property boundaries by physical infrastructure, which they consider should be contained within the existing road corridor. Furthermore, any earthworks and battering beyond a property boundary need to be designed in consultation with the relevant property owners to minimise any impact to private land. One of the further information requests Ms Mein asked of Te Tupu Ngātahi was around the edge condition. The response was reference to clause (g) of the proposed ULDM condition, which was considered to be sufficient. Edge conditions may include batters or low retaining walls or could include shortcrete depending on the slope, however these will need to be designed in greater detail for the final design and outline plan of works. Ms Mein considers it important that the project should attempt to take the least area of land possible to ensure the safe construction and operation of the BRT and associated works.

Similar to National Mini Storage, Kāinga Ora considers a more refined approach to the extent of the corridor is required to ensure only the minimum amount of land required is designated (for both construction and operational needs). Kāinga Ora proposes an amendment to Condition 3 requiring periodic review so that the extent of the designation boundary is reviewed every 12 months following the lodgement of the outline plan of works, to ensure this is being continually refined and that land no longer required for construction and operation is uplifted from the designation. Ms Mein supports that amendment, to minimise disruption to property owners.

### **PROPERTY ACCESS**

Eddie Cheok NoR1-04 is concerned with maintenance of access to their property as it is currently accessed via a slip lane on the western side of Te Irirangi Drive. Similarly, P Thambirajah & T Paskaranandavadivel NoR1-08 are concerned that the land providing shared access to 203 – 213 Te Irirangi Drive is included within the designation area and want to ensure this will not compromise safe access to these properties. A similar concern has been expressed by Mr Mrs Barakat NoR1-20 whose access is also from a slip lane on the eastern side of Te Irirangi Drive that has been identified for an integrated lane, they are also concerned at potential loss of private yard space to enable the construction of the walkway and cycleway facilities.

In the AEE and in the s92 responses Te Tupu Ngātahi states that access for properties within the proposed 'integrated lane' will be retained throughout the project. Notwithstanding, Ms Mein considers that retention of safe and functional access to all properties should be a condition of consent.

### **LOSS OF PRIVACY**

Litao Chen NoR1-03 has a property adjacent to the corridor within close proximity to the Smales Road BRT station and they want to ensure that any new fence maintains their privacy. Ugan Naidoo NoR1-06 and Huaxiu Wang NoR1-14 share similar concerns about loss of privacy, as their respective properties are both accessed from slip roads adjacent to Te Irirangi Drive. Ms Mein notes landscape design including fencing and planting is to be addressed within clauses (g) and (h) of the ULDM and considers that this is sufficient to address the submitters' concerns with respect to privacy.

## **NOR 2 – RONGOMAI PARK TO PUHINUI STATION IN THE VICINITY OF PLUNKET AVENUE**

On the southern side of Te Irirangi Drive some large sections of cut are proposed, particularly between Dawson Road and Hollyford Drive. At present very little detail is provided on the cut and fill batters. Where these are located adjoining private properties, Ms Mein expects that all solutions should be explored including whether low retaining walls could provide a solution that requires less land take.

A number of private properties are directly affected by the location of the proposed stormwater wetlands/raingardens including 1 and 3 Belinda Avenue and 199 Te Irirangi Drive, 140, 142, 146 and 148 Te Irirangi Drive and 67, 69 and 71 Te Irirangi Drive. This is presumably because these are on the low points along the corridors. The section 92 response was that the proposed stormwater infrastructure will be further developed through future consenting and detailed design. Notwithstanding the social impacts of acquiring these properties, as these are only some of the properties identified as being within the NoR2 designation corridor, Ms Mein considers it will be important that any solutions are appropriately integrated into the existing landscape and vegetation, where these fall within the watercourse corridor or form part of a new feature where these are not.

### **URBAN DESIGN SUBMISSIONS ON NOR2**

#### **EXTENT**

As with NoR1, a number of individual submitters are concerned with the requirement on their properties within this part of the corridor (including those incorrectly attributed to NoR1). These include submitters Pengxiang Huang NoR2-02, Ram Chandar NoR2-04, Manjinder Singh Birk NoR2-05 (actually on NoR3), Rawandeep Kaur NoR2-06, SPG Manukau Limited NoR2-09, Chalmers Properties Ltd NoR2-47, Mr and Mrs Chalmers NoR2-58 and Quadrant Properties Ltd NoR2-73. The acquisition of land within the NoR is to enable widening of the road corridor in these locations for either or both construction and operation of the BRT and in some instances for stormwater infrastructure. This is not solely an urban design issue; however, the take of land also affects the built form and public realm outcomes at the edge of the corridor. It is unclear to Ms Mein in some locations why so much land is proposed to be taken and whether this could be further refined prior to any works commencing on site.

SPG Manukau Limited NoR2-09 relates to a property on the corner of the Lambie Drive and Cavendish Drive intersection. The NoR proposes to take a sizeable area of land predominantly required for the construction of cut and fill batter slopes to integrate the future transport corridor with the site. The site has an existing resource consent that will be affected by the proposed extent of the designation. Existing resource consents are part of the 'existing environment', in assessing the effects of an NoR.

Murdoch Newell Management Limited NoR2-17 relates to a property at 33 Lambie Drive which has a resource consent for a comprehensive redevelopment of the site which includes three buildings and vehicular access that has not been considered in the notice of requirement and will in part be unachievable because of it. The consented development which includes a hotel and two multi-storey commercial buildings, with a proposal for an apartment building (not yet consented) is in Ms Mein's opinion the type of development envisaged for the zone and that will support a BRT. The submitter is suggesting a realignment of the corridor to avoid their site and taking a small area of Hayman Park.

Ormiston Centre Ltd NoR2-20 (actually NoR1) has similar issues to those outlined within SPG Manukau Limited NoR2-09 and Murdoch Newell Management Limited NoR2-17 regarding extent of corridor and retention of access. Where there are existing resource consents, these form part of the environment and in Ms Mein's opinion need to be taken into account accordingly to ensure that creation of the BRT reinforces rather than stymies the levels of growth anticipated to support it.

Michael Sheridan (Van Den Brink 652 Limited) NoR2-40 relates to properties at 654 Great South Road and 5 Te Irirangi Drive, including a Countdown supermarket. The submitter notes that batters previously shown along this site boundary have been changed to a retaining wall in the lodged documentation, which the submitter supports, however this has not resulted in a reduction to the extent of designation. The submitter seeks consideration of whether the extent of designation area could be reduced to minimise the impact.

David Gell (Mitre 10 Holdings Limited) NoR2-56 relates to the Mitre 10 site at 61 Lambie Drive. Mitre 10 supports the intent of the NoR, however the NoR includes a land take of approximately 1,900 m<sup>2</sup> from their site along the eastern edge fronting Lambie Drive, to provide a batter slope. The site is zoned Business – Metropolitan Centre. The submission considers a batter slope is more suited to industrial or low-density residential environments that do not need to create a strong street edge. The submission seeks that extent of the NoR be reduced to only the part required to form a signalised intersection and that any additional land taken within the site be temporary for construction purposes only.

Centuria Capital (NZ) Limited NoR2-59 relates to the Bunnings site at 55 Lambie Drive, this submission expresses a similar concern to that raised by Mitre 10 with respect to the proposed batter slope rather than a retaining wall, and also seeks consideration of the designation boundary moving further to the east of Lambie Drive.

As Ms Mein understands it, edge conditions may include batters or retaining walls, or a combination of both depending on the topography and slope and will need to be designed in greater detail for the outline plan of works of prior to starting any construction. It does seem to Ms Mein that in locations such as these, edge conditions should be designed to minimise the extent of land needing to be acquired. However, care needs to be taken to ensure retaining walls, in particular, do not create excessive shading or CPTED issues.

## **URBAN DESIGN**

Auckland University of Technology NoR2-22 and Ministry of Education NoR2-23 relate to AUT's South Campus at 640 Great South Road, Manukau located opposite the land owned by Michael Sheridan (Van Den Brink 652 Limited) NoR2-40. There is concern that excessive land is required for batters or a 10m high retaining wall, however there is a lack of information on what the boundary treatment will be and how it will impact on the main pedestrian access to the site at the corner of Te Irirangi Drive and Great South Road in terms of visibility, accessibility and overshadowing if there is a 10m high retaining wall. Greater detail has been requested regarding the extent of land required, maximum dimensions of the retaining wall and visual depictions including shading analysis.

Eke Panuku NoR2-72 generally supports the NoR to the extent it is intended to improve the transport network across southern Auckland. However, it has concerns about the impact of NoR2 on sites it has identified for redevelopment as part of Transform Manukau including the Manukau Sports Bowl, specific sites along Davies Avenue and the Davies Avenue edge of Hayman Park. Eke Panuku has concerns that include the effects the proposed NoR will have on the ability to implement the adopted masterplan for Manukau Sports Bowl; and adverse effects on the urban interface and streetscape design between Hayman Park and Davies Avenue and adverse effects on connectivity between the Park and surrounding streets. Eke Panuku seeks that boundaries be amended and an amendment to condition 13 to identify Eke Panuku as a specific organisation required to participate in all stages of the preparation of the ULDMP, and prescribe design guidelines for the ULDMP to achieve connectivity and integration with existing and planned development.

## **PROPERTY ACCESS**

Lynette Henderson NoR2-12 is concerned at loss of access to the Renaissance Apartments at 18 Ronwood Avenue, in particular loss of access to disabled and ground level parking. Body Corporate of the Renaissance Apartments at 18 Ronwood Avenue NoR2-21 is on behalf of the 167 residents expressing similar concerns to NoR2-12. Ms Mein notes approximately 335 m<sup>2</sup> is to be designated along the Ronwood Avenue frontage of the building and the AEE states that affected properties on Ronwood Avenue may be restricted to left-in and left-out access. As an existing residential apartment building, it is important that access is maintained for residents. Ms Mein notes condition 11(vi) requires engagement with landowners whose access is directly affected and condition 18(vi) requires the Construction Traffic Management Plan to include methods to maintain vehicle access to property.

## **NOR 3 – PUHINUI STATION IN THE VICINITY OF PLUNKET AVENUE TO SH20/SH20B INTERCHANGE**

The General Arrangement Plan for NoR 3 depicts that the land take to widen the corridor in this location includes a number of properties, particularly along the southern side of Puhinui Road within the vicinity of the proposed bridge to Puhinui Station. From an urban design perspective, the bridge structure has the potential to have the greatest negative impact on the immediate residential environment. This has been picked up by the UDE as something that requires inclusion within the ULDMP.

## **URBAN DESIGN SUBMISSIONS ON NOR3**

### **EXTENT**

As with NoRs 1 and 2, a number of individual submitters are concerned with the requirement on their properties within this part of the corridor. These include submitters Varinder NoR3-01, Karishma Pinter NoR3-02, Parvinder Singh NoR3-04, Ronil Prasad NoR3-05, Hsin Mila Cheung Tsa NoR3-08, Joshua Sapienza (Jehovah's Witnesses – Manukau Kingdom Hall Trust) NoR3-17, Michelle Joy Te Hira NoR3-19, Avisha Mohanlal NoR3-21, Minakshi Mohanlal NoR3-22, Mr Rajesh Kumar Sachdeva & Sunita Sachdeva & Ripul Sachdeva NoR3-29, Abhisekh Mohanlal NoR3-30, Quadrant Properties Ltd NoR3-32 and Satnam Bhatt NoR3-39. As previously stated, the acquisition of land is to enable widening of the road corridor in these locations for either or both construction and operation of the BRT. This is not solely an urban design issue, however, the take of land also affects the built form and public realm outcomes at the edge of the corridor. It is unclear to Ms Mein and the submitters in some locations why so much land is proposed to be taken and whether this could be further refined prior to any works commencing on site.

### **RESIDENTIAL AMENITY**

Submission Heather Haylock NoR3-26 primarily relates to properties fronting Puhinui Road and those on Bridge Street. It also relates to properties behind those that are identified to be acquired as part of the designation, but that will be impacted by the BRT due to proximity. There is a concern expressed around the effect the construction the BRT bridge will have on the properties below the bridge that will be impacted by overshadowing and noise as a consequence of the new structure. Ms Mein considers it is important that the ULDMP ensures the Project manage potential adverse landscape and visual effects. Clauses that should give some assurance include clauses (c), (e), and (g).

### **CONNECTIVITY AND SEVERANCE**

Severance is also raised by Heather Haylock NoR3-26, in particular providing more detail on proposed linkages for pedestrians across the BRT. This has been raised by a number of submitters and is both a transport and urban design issue. As per the Kāinga Ora submission NoR3-35, Ms Mein would support additional wording within the ULDMP condition to ensure integration with the existing area and high levels of connectivity and accessibility.

### **NORS 4A AND 4B – SH20/20B INTERCHANGE TO ORRS ROAD**

NoRs 4A and 4B include the widening of Puhinui Road (SH20B) to accommodate a centre-running BRT corridor through to Manukau Memorial Gardens. From this point, NoR4A includes widening of SH20B and the BRT corridor shifts to the south side of SH20B through to Orrs Road.

Ms Mein recognises that this section of the project corridor is located on the Puhinui peninsula, which is defined by the Otaimako, Pūkaki and Waokauri Creeks. It is of significant cultural value to Mana Whenua, in particular Te Ākitai Waiohū.



On the site visit and as part of a further information request, Ms Mein queried why no station was proposed for Manukau Memorial Gardens given it is clearly a key destination and this locality is undergoing development. The s92 response was that at present a local bus service would better serve the catchment, but that there is sufficient width to provide for a BRT station in this location should that be required. Ms Mein accepts that response as having given due consideration to the likely need and viability of a station in this location.

## **URBAN DESIGN SUBMISSIONS ON NOR4A AND NOR4B**

### **EXTENT**

Submissions Niksha Farac (Tunicin Investments Limited and Airface Limited) NoR4A-01 and Altrend Properties Limited NoR4A-04 & NoR4B-20 generally support the purpose and intent of the NoRs for creation of BRT and walking and cycling facilities. However, like many submitters, they are concerned with the extent of their land required by the designation, more than the 40m setback for road widening they had previously been aware of, which will hamper their development potential and negatively impact on access.

Submission Francelle Lupis (New Zealand Storage Holdings Limited ) NoR4A-07 opposed the NoR because it applies to a significant portion of their landholding along Puhinui Road, which it is currently developing in accordance with approved resource consents.

Kāinga Ora NoR4A-15 submission is the same for all the NoRs. It proposes amendments to condition 3 to review the extent of land take required at the time the outline plan of works lodged.

### **CONCLUSIONS**

Ms Mein supports the approach and methodology undertaken in the UDE for these NoRs. While this is relatively high level and conceptual at this stage, in her opinion the UDE has appropriately identified the opportunities and outcomes for each NoR that need to be incorporated as the project develops through the design stages. This will ensure appropriate outcomes for safe and attractive urban environments along the full length of the BRT corridor.

Ms Mein considers the proposed NoRs present a unique opportunity to connect communities throughout south-eastern Auckland and to support intensification along the corridor, in particular within walkable catchments of the proposed BRT stations. Overall, the full length of the route proposed is supported as the most appropriate route from an urban design perspective to safeguard for public transport and active modes. However, Ms Mein does agree with many of the submitters that further refinements are required to identify the extent of land proposed for widening and/or construction and ongoing operation, maintenance or mitigation of effects of the BRT to ensure that only the land area actually needed is taken.

Furthermore, in Ms Mein's opinion further detail is required to ensure:

- good connectivity to the surrounding area, particularly for people walking; and
- sense of place is identified and included within the built environment that reflects not only Mana Whenua but also the demographics of the locality to be meaningful for local communities; and

- appropriate edge conditions are provided for along the corridor, including building setbacks, batters, retaining walls and boundary treatments, that will support ongoing use and or development of sites adjoining and the corridor and a safe and attractive environment for residents, commuters, visitors and recreational users of the walking and cycling facilities.

Ms Mein has recommended amendments to the Suggested Condition Set on Condition3 - Designation Review and Condition 13 - Urban and Landscape Design Management Plan (ULDMP) and those amendments are shown in Appendix 5.

### **Planning assessment**

I understand the key matters to be:

- Connectivity vs. severance;
- Urban design outcomes and opportunities to be secured through the Project, including sense of place;
- Edge conditions of the NoRs;
- In relation to the application of the front yard standard requiring an additional setback from the designation boundary, the AUP definition of front yard is set out below:

#### ***Front yard***

*The area along the full length of a front boundary of a site that is between:*

- *the front boundary of that site;*
- *a building line restriction or a designation for road widening purposes; and*
- *a line parallel to that front boundary, restriction or designation.*

Kāinga Ora considers that the proposal is, at least in part, for road widening to accommodate the Project. A designation cannot modify a rule in the plan, and Kāinga Ora expects that the Council is likely to require the front yard to be taken from the designated boundary which would potentially result in unintended consequences along the alignment of the Project, and compromise efficient land use and development along the Project's alignment.

Without benefit of a legal opinion, I as reporting planner consider that the stated purpose of the Project is not for 'road widening purposes' even if that is part of its effect. The front yard rules along the NoRs are around 1.5m (THAB), 2.5m (MHU) and 3m (MHS), and less for business-zoned sites. Consent would be needed from the Requiring Authority if building were proposed within the designation construction boundaries, which are more extensive than the future BRT operational boundaries. This effect could be considered part of the 'blighting' caused by a long lapse period and construction works needing a more extensive area than the finished Project.

I concur with Ms Mein's opinion that, while relatively high level and conceptual at this stage, in her opinion the UDE has appropriately identified the opportunities and outcomes for each NoR that need to be incorporated as the project develops through the design stages. This will ensure appropriate outcomes for safe and attractive urban environments along the full length of the BRT corridor.

Ms Mein considers the proposed NoRs present a unique opportunity to connect communities throughout south-eastern Auckland and to support intensification along the corridor, in particular within walkable catchments of the proposed BRT stations. Overall, the full length of the route proposed is supported as the most appropriate route from an urban design perspective to safeguard for public transport and active modes. However, Ms Mein does agree with many of the submitters that further refinements are required to identify the extent of land proposed for widening and/or construction and ongoing operation, maintenance or mitigation of effects of the BRT to ensure that only the land area actually needed is taken.

Furthermore, in Ms Mein's opinion further detail is required to ensure:

- good connectivity to the surrounding area, particularly for people walking; and
- sense of place is identified and included within the built environment that reflects not only Mana Whenua but also the demographics of the locality to be meaningful for local communities; and
- appropriate edge conditions are provided for along the corridor, including building setbacks, batters, retaining walls and boundary treatments, that will support ongoing use and or development of sites adjoining and the corridor and a safe and attractive environment for residents, commuters, visitors and recreational users of the walking and cycling facilities.

Based on the advice provided by Ms Mein, I as reporting planner consider that the adverse urban design effects will be avoided, remedied or mitigated, subject to an amended set of conditions being imposed for NoR 1 to 4A and NoR4B, and particularly in relation to the wording of the ULDMP Conditions. The amendments associated with this recommendation are set out in Appendix 5 to this report. I concur with Ms Mein's assessment, and pursue the use of retaining walls in preference to batter slopes in my planning recommendations on the extent of the NoRs and their boundaries.

#### **4.4.4 Landscape effects**

##### **Application**

##### **A2B LANDSCAPE AND VISUAL EFFECTS APPLICANT'S ASSESSMENT**

Landscape effects are addressed in AEE section 9.5 and in the Landscape Effects Assessment ('LEA') prepared by Tom Lines of Te Tupu Ngātahi, and dated 9 December 2022. I have included the AEE summary of Landscape and Visual Effects here as the Applicant's assessment.

The Assessment of Landscape Effects ('ALE') assesses the potential effects on landscape character, natural character and visual effects associated with the construction and operation of the Project and recommends measures to mitigate these effects.

The assessment was undertaken in accordance with Te Tangi A Te Manu, Aotearoa New Zealand Landscape Assessment Guidelines (2021) and the Quality Planning Landscape Guidance Note (2013).

Landscape effects were assessed under the following two categories:

- Temporary effects – describes the anticipated impacts on the natural and landscape characteristics and values resulting from the construction of the Project. It also includes visual amenity effects for both public and private viewing audiences from construction works.
- Permanent effects – Describes the effects on the landscape of completed works (including integrated landscape mitigation measures), the significance of physical landscape change and ultimately the resulting effects of the Project on landscape character, natural character and visual amenity for both public and private viewing audiences.

### **CONSTRUCTION EFFECTS ON LANDSCAPE CHARACTER AND VALUES**

During construction, potential adverse effects on landscape character, values and landform features include vegetation clearance, construction areas, construction of the proposed stormwater wetlands and bridge construction. However, Te Tupu Ngātahi considers these effects are limited as the Project traverses through a predominantly urban environment.

Given the proposed earthworks will occur within or alongside the existing road corridor, in a highly modified environment, effects with mitigation are considered by Te Tupu Ngātahi to be very low to low. All cut and fill slopes will be integrated with the surrounding landscape and will be absorbed within the existing modified landform adjacent to the existing road corridors. There is also potential for cut and fill slopes to be integrated with future development as land is urbanised, particularly in A2B NoRs 4A and 4B.

The Project will result in the removal of trees and vegetation during construction. While exotic species make up a good portion of the trees to be removed, it is noted that Pōhutukawa and native bush vegetation which are considered to have a higher landscape value are likely to be removed. During construction and prior to mitigation (such as replacement tree planting), Te Tupu Ngātahi considers that the temporary adverse effect of the removal of trees and vegetation will vary across the corridor. This will range from low adverse effects to moderate-high adverse effects depending on whether the trees or groups of trees are locally noteworthy, contribute to an established or unique pattern, are scheduled as Notable Trees under the AUP:OP, the type (native or exotic) and maturity of the trees.

Indicative construction areas will temporarily occupy land across the Project (in all NoRs). These areas will be reinstated at the completion of the construction period, therefore the physical landscape effects associated with the establishment and use of construction areas are considered by Te Tupu Ngātahi to be very low to low.

The Project proposes a range of structures and associated earthworks. In summary, these include:

- Widening of the existing Otara Creek Bridge (A2B NoR 1);
- Widening of the existing SH1 bridge (A2B NoR 2);

- Widening of the existing bridge crossing the NIMT (A2B NoR 3);
- New BRT bridge crossing the NIMT to connect to Puhinui Station (A2B NoR 3);
- New southbound ramp structure from SH20B to SH20 (A2B NoR 4B); and
- Widening of existing Waokauri Creek Bridge (A2B NoR 4A).

The construction of bridges over streams is likely to require temporary works within the terrestrial margins of the stream. This will have a temporary effect on the existing landform of the riparian environment. Te Tupu Ngātahi state that landscape impacts will be remedied through riparian and native reinstatement planting which will be confirmed as part of a future consenting process.

Potential effects on private properties within and adjacent to the Project corridor during the construction period are considered by Te Tupu Ngātahi to be very low to low. Potential effects include:

- Surface level changes between private property boundaries and the upgraded road corridor, requiring existing driveways and private accessways to be regraded;
- Encroachment into private yard areas and the removal of private garden plantings and trees, ancillary buildings and boundary fences;
- Potential construction of retaining walls; and
- Removal of existing dwellings and ancillary buildings on properties to be partially required.

Te Tupu Ngātahi considers that these effects can be adequately managed from a landscape perspective with the proposed mitigation measures.

### **CONSTRUCTION TEMPORARY VISUAL AMENITY EFFECTS**

Te Tupu Ngātahi anticipates duration of construction for the Project is as follows:

- A2B NoR 1: 4 to 5 years
- A2B NoR 2: 4 to 6 years
- A2B NoR 3: 3 to 4 years
- A2B NoRs 4A and 4B: 3 to 4 years

Visual effects are anticipated to occur progressively through the Project areas during the construction period.

Te Tupu Ngātahi considers some vantage points within the Project areas are likely to witness heightened adverse visual effects through the construction phase. This is due to the magnitude of vegetation removal, the proximity of the Project corridor in relation to houses and the scale of structures proposed.

Te Tupu Ngātahi anticipates that construction activities required to implement the Project are generally consistent with the nature and scale of road works and infrastructure activities that is commonly viewed by transient viewing audiences within the existing transport corridors, centres and industrial areas nearby. The physical works are also anticipated to occur within a broader landscape where there is existing urban development or development is underway or imminent.

Te Tupu Ngātahi considers that the nature and significance of the potential adverse visual effects will also be moderated through the Project area when considering the following matters:

- Road works and construction activities can generally be expected to occur within existing roads;
- The presence of overhead structures such as pedestrian overbridges in A2B NoR 2;
- The presence of existing bridges and the likelihood of maintenance works being carried out from time to time;
- The presence of overhead structures such as pedestrian overbridges in A2B NoR 2;
- There is generally low visual amenity through the existing commercial/industrial area across the Project corridor; and
- The existing structures associated with the state highway network in A2B NoRs 4A and 4B are already dominant elements within the visual landscape, and visual amenity is relatively low within the adjoining landscape which is transitioning from rural to industrial.

Therefore, Te Tupu Ngātahi consider that visual effects during construction for transient viewing audiences will be low to moderate and for private viewing audiences will be low-moderate to moderate. However, for viewing audiences opposite the proposed BRT bridge, the size and scale of the bridge may not be fully anticipated. Residential viewing audiences would experience views of the overhead structure being built, including any abutment walls, columns, and the underside of the bridge. Whilst the bridge will appear clearly associated with the road corridor environment, the height and scale of construction activities along with the size of the bridge will not directly relate to the established scale of the road environment. For these reasons, it is anticipated that adverse effects during construction would be high for residents on the northern side of Puhinui Road that are located directly adjacent to the bridge.

### **NOR1, 2, 3, 4A & 4B CONSTRUCTION LANDSCAPE EFFECTS**

Mr Rob Pryor (Council Landscape and Visual Effects Specialist) summarises the Applicant's Landscape Assessment in his Technical Memo (Appendix 1) and I summarise Mr Pryor's construction landscape effects assessments later in this report.

### **OPERATIONAL LANDSCAPE EFFECTS**

The potential permanent changes to the existing landform associated with the Project are limited and will typically arise from the earthworks to accommodate the new road levels and surfaces. These effects are sufficiently covered in the construction effects section above and it is considered that there would not be further change to the landform during operation of the Project. Therefore, Te Tupu Ngātahi considers the effects on the landform during operation would be very low to low.

With regard to effects on vegetation, once the Project is in operation, a substantial number of trees would be established. It is proposed that this will include a combination of street trees within the Project corridor as well as mass planted vegetation within the proposed designation boundary and within adjoining open spaces. Although initially, these trees would not be of a size and scale comparable to some of the trees removed as part of the construction of the Project, in time (once fully mature), these would provide a greater contribution to the areas adjacent to the Project in terms of vegetated cover.

### **OPERATIONAL VISUAL AMENITY EFFECTS**

Overall, Te Tupu Ngātahi considers there are likely to be a range of visual amenity effects on public and private viewing audiences relative to the Project corridor. These include:

- For existing properties that are set back from the Project corridor, the visual amenity effects will discern little to no perceivable change in effects from the existing road corridors;
- Residual adverse visual effects are anticipated for some private residential and industrial properties, adjacent to the Project corridor. Viewers may experience some level of material change to the visual composition and amenity of the road corridor. However, it is proposed that vehicular traffic would be located at a similar distance from the property boundaries as currently observed;
- Impacted properties may experience heightened visual amenity and residential character effects as a direct result of driveway regrading, potential loss of yard space and by the greater proximity of the carriageway, footpaths and cycleways to private dwellings. However, in the context of a future high density urban environment in the long term, this is considered to be appropriate; and
- Public viewing audiences will continue to engage with a similar transport environment, within the backdrop of an urban environment. Over time, visual amenity and appeal for users will improve, due to an improved streetscape design, maturing street trees and berm plantings, and greater accessibility to active modes of transport.

Notwithstanding the above, for residents directly opposite to the proposed BRT bridge crossing the NIMT, i.e. east of Raymond Road, there will be a greater level of permanent change. Depending on their position along the corridor, they would view one or a combination of the bridge features including ramp abutments or columns with the underside of the bridge visible near the crossing of Kenderdine Road. Te Tupu Ngātahi considers that for these viewing audiences there will be high adverse effects as the size and scale of the bridge will be contrary to the established character of their outlook.

### **NOR1, 2, 3, 4A & 4B OPERATIONAL LANDSCAPE EFFECTS**

Mr Rob Pryor (Council Landscape and Visual Effects Specialist) summarises the Applicant's Landscape Assessment in his Technical Memo (Appendix 1) and I summarise Mr Pryor's operational landscape effects assessments later in this report.

## **MEASURES TO AVOID, REMEDY OR MITIGATE LANDSCAPE EFFECTS**

To address the modification to the landscape arising from the Project, prior to construction, an ULDMP will be prepared. The ULDMP is to include the following matters which address the principal elements of the Project that are likely to give rise to temporary and permanent adverse effects on landscape character, natural character and visual amenity:

1. Construction and site compound areas: reinstate these areas by removing any left-over fill and shaping ground to integrate with surrounding landform. Reinstate with grass at the completion of works;
2. Bridges and structures: demonstrate visual integration and sense of place considerations for the proposed bridge structures. This will involve relating the structures to the character and scale of surrounding future urban form and proposed landscape treatments, for example there is an opportunity for the SH20B ramp structure to celebrate the historic gateway context and associative values of the landscape through architectural design;
3. Active transport connectivity: investigate opportunities to integrate active transport facilities with existing and future open space within the proposed designation, including Rongomai Park, Hayman Park, Puhinui Domain;
4. Planting design details: landscape design and planting design details will be prepared for the Project that demonstrate the following:
  - Street trees along the full length of the proposed Project corridor in conjunction with shrubs and ground cover species appropriate for the use within stormwater treatment areas and berms;
  - Integration of Mana whenua preferred design principles in relation to planting;
  - Identification of existing trees and vegetation that will be retained. Where practicable, mature trees and indigenous vegetation should be retained;
  - Reinstatement planting within private property boundaries in consultation with property owners; and
  - Stormwater wetland design and planting.

### **Submissions**

There were a number of submissions in relation to landscape and visual matters as follows:

#### **NOR1**

- *Earthworks and batters to be designed in consultation with property owners to minimise impacts.*
- *Consider a retaining wall rather than a batter slope.*
- *Visual impacts due to the establishment of hoarding and changed wayfinding during construction.*
- *Enormous reduction in trees and the urban ngahere canopy coverage across this area.*
- *Decreased visual amenity.*



- Residential amenity effects.
- Loss of trees.
- Oppose the removal of trees lining both sides of the corridor along Te Irirangi Drive.

## **NOR2**

- The NoR2 as it affects the site does not appear to be required for widening of the existing carriageway, but is to be used to provide a fill batter slope and residual land.
- As submitted, the NoR2 is disenabling of this outcome, in providing for and protecting a batter slope supporting the road and residual land beyond, thus preventing the streetscape outcome promoted by the BMC zoning of the site.
- Adverse visual and amenity effects, including as a result of effects from construction activities (e.g., noise and dust, traffic) surrounding Countdown Manukau.
- Loss of mature trees along Te Irirangi Drive frontage.
- Batter slopes are more suited to industrial and low-density residential environments and are inappropriate in metropolitan centres.
- Adverse visual and amenity effects, including as a result of the proposed BRT station, encroachment on Hayman Park and a hard western alignment of the BRT which reduces permeability and legibility.
- Line of Norfolk Pine trees down centre of Lambie Drive will be lost, including their ecological purposes and attractive visual backdrop. Loss of trees and grassed median will mean less soakage for rainwater and a significant ecological loss. Loss of the trees will also mean a loss of outlook from our unit.
- AT has not adequately considered alternative methods for undertaking the A2B Project works in the vicinity of the Property, including a retaining wall instead of the batter slopes.
- Concern at widening of Lambie Drive including batters rather than retaining wall, and maintenance of two existing two-way site accesses.
- The batters previously shown along the northern site boundary have been changed to a retaining wall in the lodged documentation. This is supported as it results in less permanent impact on the site.

## **NOR3**

- Any earthworks and battering extents beyond the existing property boundary are to be designed in consultation with the relevant property owners to minimise any impact to private land and maintain the same utility of the said land.
- Further assessment needs to be undertaken of how existing historic features, such as the Gardener's Cottage and garden planting could be accommodated into the design of the proposed designation corridor to enable adaptation, interpretation, and landscaping to avoid removal and replacement with new landscaping and where possible interpretation.

- Residential amenity - project will severely negative impact all of the residents' quality of life.
- Oppose the removal of trees lining both sides of the corridor along Te Irirangi Drive.

#### **NOR4A**

- The extent of NoR4A is greater than the 40m set-back, including 10m landscaping yard for accommodation of the Puhinui Heritage Gateway, that already applies to NZSHL's land to provide for future possible transport requirements in accordance with the Puhinui Precinct provisions. the NoR4A additionally does not appear to recognise or make provision for this 10m landscape yard.
- Need to make provision for a 10m landscape yard and the Puhinui Heritage Gateway.
- Removal of trees and increase in hard surfaces.
- Earthworks and batters to be designed in consultation with property owners to minimise impacts.
- Consider a retaining wall rather than a batter slope.

Mr Pryor reports that, as outlined in the submissions a number of submitters are concerned at the extent of land required for the slope batters. He considers that earthworks and batters should be designed in consultation with property owners to minimise the land required for the works and that the utilisation of retaining walls should be investigated to minimise impacts on the adjacent land, particularly for properties within NoRs 1-3. Retaining walls should be considered rather than a batter slope in areas where space is limited.

In relation to the other submissions, Mr Pryor considers that the proposed mitigation measures outlined and in particular, the implementation of measures outlined in the ULDMP will appropriately integrate the Project's permanent works into the surrounding landscape and urban context and ensure that the Project manages potential adverse landscape and visual effects as far as practicable.

#### **Specialist assessment**

Landscape and visual effects have been assessed by Mr Rob Pryor, Consultant Landscape and Visual Effects Specialist, LA4 Limited, in a memo dated 28 April 2023, which is contained in Appendix 1 to this report. I have paraphrased (Mr Pryor's words) his findings as follows:

#### **NOR1 LANDSCAPE AND VISUAL EFFECTS**

*The NoR 1 works are largely contained within a highly modified urban environment influenced by Te Irirangi Drive. The works are largely contained within the road corridor which reduces the sensitivity of the environment to change as proposed by the Project.*

*In terms of landscape effects, the removal of 683 trees within the road reserve and private land will result in a moderate-high adverse effect initially. The Assessment of Arboricultural Effects recommends replacement planting at a minimum of 2:1 and the replacement of at least 27,084m<sup>2</sup> of mass planted indigenous planting for this section. Proposed condition 9 outlines the requirement for the preparation of an Urban and Landscape Design Management Plan (ULDMP) prior to the start of construction to enable the integration of the Project's permanent works into the surrounding landscape and urban context. The ULDMP is to include planting design details including trees to be retained, and proposed street trees, shrubs and ground covers. I consider that the replacement planting proposed in the Assessment of Arboricultural Effects will be appropriate mitigation for the tree removal and should be adhered to. Large grade specimen trees should be used (including grades of 45L, 80L and 160L).*

*The Project works will have minimal impact on a number of open space areas in the vicinity including Kellaway Drive Reserve and Rongomai Park. I consider the effects on open space will be very low adverse due to the limited earthworks being largely aligned to the road corridor footprint and I concur that following construction, landscape values on the open space will be similar to those currently experienced.*

*In terms of landscape character it is considered that there will be a high degree of change to the character of the area particularly during construction activities. This will be resultant from earthworks, construction equipment and machinery, realignment and alteration of roads and berms. This will result in low-moderate adverse landscape character effects for the duration of the works. The works are largely in the vicinity of the road corridor which will reduce their impact. Following construction and implementation of the ULDMP mitigation measures I consider there will be low adverse landscape character effects.*

*Effects on natural character will be restricted to earthworks within a highly modified urban environment. I consider that any adverse effects during construction will be low, and very low following construction.*

*Temporary visual effects will result from construction activities, elements and structures during the course of the Project. Permanent visual effects will result following the construction of the Project and include the completed elements and structures including the widened road corridor, lighting poles, signage and proposed landscape mitigation planting and street trees.*

*In terms of recreational viewing audiences in Kellaway Drive Reserve and Rongomai Park, I consider there will be low adverse visual effects due to the limited extent of works and degree of visibility. For commercial viewing audiences, their sensitivity to change will be low due to commercial activities being an established part of the area and as such there will be low adverse visual effects. Travelling viewing audiences are transient in nature and views will be experienced for a short duration. Views will also be experienced along the general alignment of an existing road corridor and the visual effects will not be too dissimilar to those currently experienced (apart from the widened corridor and new structures including the BRT stations). I consider for this audience the adverse visual effects will be low and not incongruous in such an environment.*

*Residential viewing audiences will be the most sensitive to change, living locally and occupying a large area along the edges of Ti Rakau Drive. These residents are also located within the environs of the existing road corridor. The residential properties along Ti Rakau Drive and the newly exposed 'front row' properties will be exposed to close views. During construction activities there will be moderate to high adverse visual effects due to the proximity of the works and the disruption it will bring. Following construction and implementation of the proposed mitigation measures required through the ULDMP, the adverse visual effects will be low and not too dissimilar to currently experienced. Views from more distant residential areas will be filtered by intervening vegetation and buildings within the line of sight. Views from these areas will be within the context of the existing built form and road corridor and the adverse visual effects will be low.*

## **NOR2 LANDSCAPE AND VISUAL EFFECTS**

*The NoR 2 works are similarly contained within a highly modified urban environment influenced by Te Irirangi Drive, the commercial characteristics of Manukau Central and Lambie Drive, and the residential activities between Ihaka Place and Plunket Avenue. Again, the works are largely contained within the road corridor which reduces the sensitivity of the environment to change as proposed by the Project.*

*In terms of landscape effects, the removal of 404 protected trees within the road reserve and open space zoned areas will result in a moderate-high adverse effect initially. The Assessment of Arboricultural Effects recommends replacement planting at a minimum of 2:1 and the replacement of mass planted indigenous planting for this section. Proposed condition 9 outlines the requirement for the preparation of an Urban and Landscape Design Management Plan (ULDMP) prior to the start of construction to enable integration of the Project's permanent works into the surrounding landscape and urban context. The ULDMP is to include planting design details including trees to be retained, and proposed street trees, shrubs and ground covers. I consider that the replacement planting proposed in the Assessment of Arboricultural Effects will be appropriate mitigation for the tree removal and should be adhered to. Large grade specimen trees should be used (including grades of 45L, 80L and 160L).*

*The Project works will have minimal impact on the open space areas in Orlando Reserve, Hayman Park and Puhinui Domain. The removal of vegetation along the road frontage to the Manukau Sports Bowl will have temporary adverse effects on the open space qualities of the open space due to its existing aesthetic qualities visually screening the road corridor and providing visual relief to the more sparsely vegetated urban environment which surrounds it. The ULDMP needs to address this area in providing suitable mitigation for the vegetation removal.*

*In terms of effects on landscape character it is considered that there will be a high degree of change to the character of the area particularly during construction activities. This will be resultant from earthworks, construction equipment and machinery, realignment and alteration of roads and berms and the construction of the Puhinui Station BRT bridge. This will result in low-moderate to moderate adverse landscape character effects for the duration of the works. The works are largely in the vicinity of the road corridor which will reduce their impact. Following construction and implementation of the ULDMP mitigation measures I consider there will be low adverse landscape character effects. The Puhinui Station BRT bridge will have adverse effects on the landscape character values in the vicinity of the structure. The UDLMP conditions (9(e)(iii)c.) require the architectural and landscape treatment of all major structures, including bridges and retaining walls to be addressed to integrate the Project's permanent works into the surrounding landscape and urban context. I consider this is an appropriate condition to minimise the adverse effects on landscape character of the Puhinui Bridge on the surrounding area.*

*Effects on natural character will be restricted to earthworks and vegetation removal within several tributaries and the stormwater pond in Puhinui Domain. Any adverse effects during construction are considered to be low, and very low following construction. There will be positive effects to Puhinui Domain through the enhanced tributary and stormwater pond.*

*Temporary visual effects will result from construction activities, elements and structures during the course of the Project. Permanent visual effects will result following the construction of the Project and include the completed elements and structures including the widened road corridor, Puhinui Station BRT bridge, lighting poles, signage and proposed landscape mitigation planting and street trees. The residential viewing audiences will have a higher sensitivity to change than those passing through the area. For this audience the effects are considered to be low to moderate adverse but in keeping within an established major arterial road corridor. The proposed Puhinui Station BRT bridge will result in moderate adverse effects for residential viewing audiences in close proximity, particularly on the northern side of Puhinui Road. The UDLMP condition (9(e)(iii)c.) requires the architectural and landscape treatment of all major structures, including bridges and retaining walls to be addressed to integrate the Project's permanent works into the surrounding landscape and urban context. I consider this is an appropriate condition to minimise the adverse visual amenity effects of the Puhinui Station BRT bridge on the surrounding area.*

*I consider the visual amenity effects to be low to very low adverse for travelling viewers, and very low adverse for occupational viewing audiences and visitors to business premises, Redoubt North School and Puhinui School. The effects are considered to be low adverse for recreational viewing audiences in Rongomai Park, Orlando Reserve and Hayman Park. There will be low beneficial effects on Puhinui Domain due to the upgraded stormwater pond. Recreational viewers within the Manukau Sports Bowl will be exposed to views of the Project due to the removal of the stand of mature vegetation along the road frontage. The ULDMP needs to address this area in providing suitable mitigation for the vegetation removal.*

### **NOR3 LANDSCAPE AND VISUAL EFFECTS**

*The existing environment along Puhinui Road consists of a mix of business – commercial, light industrial and residential uses. The Project works are similarly contained within the road corridor which reduces the sensitivity of the environment to change as proposed by the Project.*

*In terms of landscape effects, the removal of 30 protected trees within the road reserve including the scheduled Flowering Gum will result in a moderate-high adverse effect initially. The Project works will have no adverse effects on natural character or open space values due to the highly modified road corridor environs and lack of public reserves.*

*In terms of landscape character I consider that there will be a high degree of change to the character of the area particularly during construction activities. This will be resultant from earthworks, construction equipment and machinery, realignment and alteration of roads, construction of the Puhinui Station BRT bridge, and berms. This will result in low-moderate adverse landscape character effects for the duration of the works. The works are largely in the vicinity of the road corridor which will reduce their impact. Following construction and implementation of the ULDMP mitigation measures I consider there will be low adverse landscape character effects.*

*Temporary visual effects will result from construction activities, elements and structures during the course of the Project. Permanent visual effects will result following the construction of the Project and include the completed elements and structures including the widened road corridor, Puhinui Station BRT bridge, lighting poles, signage and proposed landscape mitigation planting and street trees.*

*Views will be experienced for the travelling audience along the general alignment of an existing road corridor and the visual effects will not be too dissimilar to those currently experienced (apart from the widened corridor and new structures including the Puhinui Station BRT bridge). I consider for this audience the adverse visual effects will be low and not incongruous in such an environment.*

*Residential viewing audiences will be the most sensitive to change, living locally and occupying a large area along the edges of Puhinui Road. These residents are also located within the environs of the existing road corridor. The residential properties along Puhinui Road will be exposed to close views. During construction activities there will be moderate to high adverse visual effects due to the proximity of the works and the disruption it will bring. Following construction and implementation of the proposed mitigation measures required through the ULDMP, the adverse visual effects for most of the viewing audience will be low and not too dissimilar to currently experienced. For the residential viewing audience on the northern side of Puhinui Road in the vicinity of the Puhinui Station BRT bridge the adverse visual amenity effects will remain to be high. The ULDMP condition (9(e)(iii)c.) requires the architectural and landscape treatment of all major structures, including bridges and retaining walls to be addressed to integrate the Project's permanent works into the surrounding landscape and urban context. I consider this is an appropriate condition to minimise the adverse visual amenity effects of the Puhinui Station BRT bridge on the surrounding area.*

*Views from more distant residential areas will be filtered by intervening vegetation and buildings within the line of sight. Views from these areas will be within the context of the existing built form and road corridor and the adverse visual effects will be low.*

#### **NOR4A & 4B LANDSCAPE AND VISUAL EFFECTS**

*The existing environment along SH20B is characterised by the road corridor, the Manukau Memorial Gardens and agricultural activities on the northern side, and agricultural, horticultural and commercial activities on the southern side zoned for light industrial activities (earthworks and road already commenced for a large development).*

*In terms of landscape character effects I consider that there will be a low degree of change to the character of the area during construction due to the existing infrastructure associated with both SH20 and SH20B. This will result in low adverse landscape character effects for the duration of the works. The works are in the vicinity of the existing road corridor, extending into the land on the southern side of SH20B, zoned for light industrial activities, which will reduce their impact. Following construction and implementation of the ULDMP mitigation measures I consider there will be very low adverse landscape character effects.*

*Effects on natural character will relate to the removal of the intermittent tributary associated with the Waokauri Creek and two natural wetlands. I consider that the adverse effects will be moderate until mitigation measures are implemented following construction. Following the establishment of riparian planting around the tributary and wetlands, I consider that there will be very low adverse effects.*

*Temporary visual effects will result from construction activities, elements and structures during the course of the Project. Permanent visual effects will result following the construction of the Project and include the completed elements and structures including the widened road corridor, ramp structure, lighting poles, signage and proposed landscape mitigation planting and street trees.*

*Views will be experienced for the travelling audience along the general alignment of an existing road corridor and the visual effects will not be too dissimilar to those currently experienced (apart from the widened corridor and the new ramp structure). I consider for this audience the adverse visual effects will be very low and not incongruous in such an environment.*

*Residential viewing audiences will be very limited along the alignment, due to the existing commercial, agricultural and horticultural activities and light industrial zoning of the surrounding land to the south and part north of SH20B. Residential audiences to the northeast, accessed off Hillside Road, will be exposed to views towards the ramp structure, albeit viewed within the context of the existing SH20 and SH20B road corridor environs. During construction activities there will be low-moderate adverse visual effects due to the proximity of the works.*

*Following construction and implementation of the proposed mitigation measures required through the ULDMP, the adverse visual effects for most of the viewing audience will be very low and not too dissimilar to currently experienced (other than the proposed ramp structure which will be mitigated under proposed UDLMP condition (9(e)(iii)c.). Views from more distant residential areas will be filtered by intervening vegetation and buildings within the line of sight. Views from these areas will be within the context of the existing built form and road corridor and the adverse visual effects will be very low.*

## **CULTURAL LANDSCAPE VALUES**

Mr Pryor states that the LEA acknowledges that the Project traverses areas of cultural significance, and as set out in the AEE, Mana whenua have been involved as partners through the NoR phase of the Project. The LEA recommends the following measures to appropriately recognise the cultural landscape in the future phases of the Project:

- Mana whenua are involved as partners in the future design of the Project;

- Opportunities to provide appropriate wayfinding and signage are explored in partnership with Mana whenua;
- Opportunities are identified to enhance water quality and restore streams within the Project area;
- Provision is made for tree planting within and adjacent to the Project corridor to represent an urban ngāhere;
- Opportunities are identified to acknowledge cultural narratives in the design of Project elements, in particular the proposed BRT bridge connecting to Puhinui Station and bridge structure from SH20B to SH20; and
- Opportunities are identified to acknowledge cultural narratives in the design of Project elements.

Mr Pryor considers that engagement with mana whenua is a key component to the Project by providing opportunities to enhance cultural values and sites by incorporating cultural recognition and that these are appropriate measures to recognise the cultural landscapes in the vicinity of the Project.

### **MITIGATION**

Mr Pryor notes that the LEA considers the nature of the Project and the anticipated change to the receiving environment, and proposes a number of measures which will help to mitigate the natural character, landscape and visual effects associated with the Project. Recommended mitigation measures for construction and operation are considered in a Project wide context, i.e. across all NoRs. The primary means of mitigating the effects is noted as being through design responses to be illustrated in an Urban and Landscape Design Management Plan (ULDMP).

The mitigation of operational effects includes (in addition to Project wide recommendations) specific recommendations relating to works associated with the Puhinui Station BRT Bridge and the SH20B to SH20 Ramp Structure. The following mitigation measures are proposed as part of the Project:

#### **MANA WHENUA PARTNERSHIP**

Engagement with Mana whenua is identified as a key component of the Project including input into the ULDMP. This includes but is not limited to:

- Appropriate use of Te Aranga principles;
- Treatment of residual open spaces;
- The selection and supply of plant species and planting designs;
- The potential for enhancement of habitat associated with the kawau (black shag) and other identified areas of customary importance such as the Tāmaki River; and



- Opportunities to enhance cultural values and sites by incorporating cultural recognition elements into features of the project. Cultural recognition elements may include Māori carvings and/or art, pou and/or other cultural features and/or markers to recognise and provide for the cultural relationship of mana whenua with the land directly affected by the Project.

Mr Pryor considers that engagement with Mana whenua is a key component to the Project by providing opportunities to enhance cultural values and sites by incorporating cultural recognition.

### **URBAN AND LANDSCAPE DESIGN MANAGEMENT PLAN**

A comprehensive ULDMP is to be prepared. The objective of the ULDMP is to enable integration of the Project's permanent works into the surrounding landscape and urban context and ensure that the Project manages potential adverse landscape and visual effects as far as practicable and contributes to a quality urban environment.

The ULDMP includes but is not limited to:

- Urban design details for the works including the form and detaining of structures;
- Landscape design details for the works;
- Architectural and landscape treatment of all major structures, including BRT stations, Puhinui Road bridge, embankments, bridges and retaining walls;
- Landscape mitigation measures for Hayman Park;
- Landscape treatment of all permanent stormwater control wetlands and swales;
- Lighting, signage and street furniture details;
- Integration with adjacent properties;
- All large specimen trees to be a minimum planter bag size of 160 litre, small trees to be 45 litre, shrubs 2 litre and groundcovers 1 litre;
- Pedestrian and cycle facilities including paths, road crossings and dedicated pedestrian/cycle bridges or underpasses;
- Design features and methods for cultural expression and in order to reflect outcomes agreed through mana whenua engagement;
- Design features associated with the management of stormwater, including both hard and soft landscaping; and
- A maintenance plan and establishment requirements over a three-year period for landscaping and five years for specimen trees following planting.

### **CONSTRUCTION SPECIFIC MITIGATION MEASURES**

Mitigation measures to be implemented during construction are outlined under Section 9 including limiting works areas, minimising earthworks, minimising vegetation removal, installing construction hoardings with interpretive material regarding the project and minimising construction lighting.

### **OPERATIONAL MITIGATION MEASURES**

Operational Mitigation Measures are outlined under Section 10 to address potential adverse effects on landscape character and values, natural character and visual amenity covering:

Transport corridor; BRT Stations; Vegetation/planting; Integration with adjacent properties; Stormwater infrastructure; Hayman Park; Puhinui Station BRT Bridge; SH20B-SH20 ramp structure.

In terms of the Transport Corridor the LEA recommends:

- *Design the road to be the minimum width and have the minimum number of lanes practicable, particularly at intersections, to reduce the visual and physical severance impacts of the corridor.*
- *Provide trees and planting along the transport corridor to reinforce the existing planted character, soften the interface with adjoining uses, reduce the apparent width of the corridor, define views towards landmarks and highlight key nodes.*

Mr Pryor considers the BRT Station mitigation measures are appropriate and include high quality design outcomes and incorporation of tree planting to signalise the stations along the corridor. Mana whenua input will provide local contextual naming of the BRT stations that will support placemaking and wayfinding.

In terms of vegetation mitigation the LEA recommends:

- *Consider initiatives from local Iwi to incorporate culturally significant planting or landscaping elements*
- *Provide for predominantly native planting palette*
- *Use street tree planting for shade as well as to soften the edges of the transport corridor, creating a pleasant walking and waiting environment*
- *Use planting to screen off the Project from adjacent private properties where adverse effects will require mitigation and frame orientation views, while increasing the amenity of the Project.*

Mr Pryor considers these are appropriate measures to assist integrate the Project into the surrounding landscape.

## **PUHINUI STATION BRT BRIDGE AND SH20B-SH20 RAMP STRUCTURE LANDSCAPE AND VISUAL EFFECTS**

Mr Pryor concurs with the LEA that the Puhinui Station BRT Bridge and SH20B-SH20 Ramp Structure works are largely in the vicinity of the road corridor and within the context of an established transport orientated environment which reduces their impact. He considers that the above mentioned ULDMP and Operational Mitigation Measures will assist to more fully integrate the structures into the landscape.

### **LANDSCAPE NOR RECOMMENDATIONS**

Having considered the NoR applications and their natural character, landscape and visual amenity effects considerations, and the associated set of conditions, Mr Pryor considers that the NoRs should be recommended confirmed.

He considers that earthworks and batters should be designed in consultation with property owners to minimise the land required for the works and that the utilisation of retaining walls should be investigated to minimise impacts on the adjacent land, particularly for properties within NoRs 1-3. Retaining walls should be considered rather than a batter slope in areas where space is limited.

### **Planning assessment**

I understand the key matters to be:

- Generally low to moderate effects on landscape and visual amenity, manageable by mitigation and conditions such as the management plan ULDMP;
- Need to consider greater use of retaining walls at designation boundaries, in preference to batter slopes, to reduce the physical extent of the NoRs.

Mr Pryor reports that, as outlined in the submissions, a number of submitters are concerned at the extent of land required for the slope batters. He considers that earthworks and batters should be designed in consultation with property owners to minimise the land required for the works and that the utilisation of retaining walls should be investigated to minimise impacts on the adjacent land, particularly for properties within NoRs 1-3. Retaining walls should be considered rather than a batter slope in areas where space is limited. I concur with Mr Pryor's assessment and recommendations.

In relation to the other submissions, Mr Pryor considers that the proposed mitigation measures outlined and in particular, the implementation of measures outlined in the ULDMP will appropriately integrate the Project's permanent works into the surrounding landscape and urban context and ensure that the Project manages potential adverse landscape and visual effects as far as practicable. I concur with that assessment.

Having considered the NoRs for their natural character, landscape and visual amenity effects considerations, and the associated set of conditions, Mr Pryor considers that the NoRs should be recommended confirmed, subject to his amendment recommendations in relation to the use of retaining walls rather than batter slopes to minimise the extent of land uptake required on the adjacent sites. I concur with that assessment, and pursue the use of retaining walls in preference to batter slopes in my planning recommendations on the extent of the NoRs and their boundaries.

#### 4.4.5 Flooding effects

##### Application

##### **A2B FLOODING EFFECTS APPLICANT'S ASSESSMENT**

Flooding effects are addressed in AEE section 9.9 and in the Assessment of Flooding Effects ('AFE') prepared by Kate Symington of Te Tupu Ngātahi, and dated 9 December 2022.

The AFE assesses the actual and potential effects of the future construction and operation of the Project as it relates to flooding. The assessment draws a distinction between stormwater effects and flood hazard effects, which are a subset of potential stormwater effects.

Stormwater effects are broadly divided into stormwater quantity effects which may cause effects onstream habitat, baseflow and sediment movement in streams), stormwater discharge quality which may cause effects on aquatic fauna, public health and amenity values) and the effects on streams due to the presence of in-stream structures. Effects of stormwater quantity, quality and effects on streams will be considered as part of a future consenting process.

The AFE assessment is limited to flood hazard effects being the specific matters that would trigger a District Plan consent requirement.

While stormwater effects apart from flood hazard effects are not assessed, provision is made for the future mitigation of potential stormwater effects (stormwater quality and retention/detention) by identifying the space required for stormwater management devices (for example rain gardens and wetlands) and incorporating sufficient land for that purpose into the proposed designation boundaries.

The methodology for the assessment of flood hazard effects has involved:

- Desktop assessments to identify potential flooding locations;
- Review of flood extent maps to identify flooding effects at key locations such as existing culverts, properties and buildings;
- Flood modelling of the pre-development terrain with Maximum Probable Development (**MPD**) and future 100 year Average Recurrence Interval (**ARI**) plus climate change rainfall; and
- Modelling of two climate scenarios – one considering an increase in temperature of 2.1 degrees and a sensitivity analysis considering an increase in temperature of 3.8 degrees.

## **CONSTRUCTION EFFECTS**

Te Tupu Ngātahi state that the following construction effects apply to the full extent of the Project. Considering the location of proposed works in relation to overland flows and known flood extents, the proposed construction works which could result in flooding effects include:

- Upgrading of existing culvert or bridge crossings;
- Realignment of existing overland flow paths;
- Works, such as regrading and raising levels, within existing floodplains; and
- Storage of materials and use of lay down areas within floodplains.

## **OPERATIONAL EFFECTS**

The assessment of operational effects for the Project is based on the 100-year flood model results for the pre-development (existing) terrain and considers the flooding extents at existing culvert crossings and along existing roads. The following matters have been considered by Te Tupu Ngātahi as part of the assessment:

- Existing flooding and freeboard at key points identified from modelling the existing terrain;
- The potential of flooding on existing properties due to the proposed concept design of the Project; and
- Incremental changes to the corridor impervious area.

## **MEASURES TO AVOID, REMEDY OR MITIGATE POTENTIAL ADVERSE FLOODING EFFECTS - CONSTRUCTION**

Flood hazard risks for the construction phase are to be addressed in a Construction Environmental Management Plan (**CEMP**) proposed as a condition on the designations and alteration to designation. In preparing the CEMP, Te Tupu Ngātahi state that key issues to consider include:

- Siting construction yards, laydown areas and stockpiles outside the predicted flood plains;
- Maintaining overland flow paths around / through areas of work;
- Minimising the physical obstruction to flood flows at the low points;
- Staging and programming to provide new drainage prior to raising existing road design levels and carrying out work when there is less risk of extreme flood events; and
- Actions to take in response to heavy rain warnings which may include reducing the conveyance of materials and plant that are considered necessary to be stored or sited within the predicted flood plain or significant overland flow path.

**MEASURES TO AVOID, REMEDY OR MITIGATE POTENTIAL ADVERSE FLOODING EFFECTS**  
**- OPERATIONAL**

Te Tupu Ngātahi recommends that during detailed design, additional flood modelling is carried out and measures implemented to achieve the following outcomes:

- No increase in flood levels for existing authorised habitable floors that are already subject to flooding (that is, no increase in flood level where the flood level using the pre project model scenario is above the habitable floor level);
- No more than a 10% reduction in freeboard for existing authorised habitable floors (that is, if existing freeboard was 500mm, an acceptable change would be to reduce freeboard to 450mm);
- No increase of more than 50mm in flood level on land zoned for urban or future urban development where there is no existing habitable dwelling;
- No new flood prone areas (with a flood prone area defined as a potential ponding area that relies on a single culvert for drainage and does not have an overland flow path); and
- No more than a 10% average increase of flood hazard (defined as flow depth times velocity) for the main access to authorised habitable dwellings.

Where the above outcomes can be achieved through alternative measures outside of the designation such as flood stop banks, flood walls and overland flow paths, this may be agreed with the affected property owner and Auckland Council.

The above outcomes are included as conditions on the proposed designations and alteration to Designation 6717.

**Submissions**

Submissions have been received in relation to the following matters:

NoR	Sub. No. and Name of Submitter	Relevant flood issues raised by the Submitter(s)
NoR1	13 – Vanessa Phillips	Increased flood risk.
	30 – Paul Reyneke	Council specialist comment: Overall, it is considered that the proposed flood hazard condition, subject to the recommended amendments, will ensure that the flood effects of the Project will be mitigated to the extent practicable and will be less than minor.
	31 – Matthew Cheeseman	
	32 – Maureen Irwin	
	33 – Laura Unasa	
	34 – Emerson Cheeseman	

NoR	Sub. No. and Name of Submitter	Relevant flood issues raised by the Submitter(s)
All	NoR1-26, NoR2-53, NoR3-26, NoR4A-9, NoR4B-4 – Heather Haylock	<p>That AT and AC reconsider the use of the ‘100 year flood’ calculation and the no more than 10% increased flood hazard risk, and whether this level of risk is acceptable to the community given recent rainfall events and the potential for increased severity and frequency of extreme weather events in the future.</p> <p>That AT consider, at the design stage of the project, ways in which it can further reduce the flood hazard in areas surrounding the BRT route e.g., stormwater soaked up in a ‘ribbon park’ created on unused acquired land.</p> <p>Council specialist comment: Overall, it is considered that the proposed flood hazard condition, subject to the recommended amendments, will ensure that the flood effects of the Project will be mitigated to the extent practicable and will be less than minor.</p>
All	NoR1-41, NoR2-76, NoR3-35, NoR4A-15 – Kāinga Ora	<p>It is of Kāinga Ora opinion that the Project should be required to manage the flooding effects within its own boundary.</p> <p>Kāinga Ora requests that a flood hazard condition is added so that, simply put, the Requiring Authority does not worsen any flooding effects onto neighbouring properties and appropriately avoids, remediates and/or mitigates the effects of their construction activities.</p> <p>Council specialist comment: Overall, it is considered that the proposed flood hazard condition, subject to the recommended amendments, will ensure that the flood effects of the Project will be mitigated to the extent practicable and will be less than minor.</p>
NoR2	13 – Duncan and Sandra Loudon	<p>Flooding at Puhinui Domain, along Grayson Ave and the property at 43 Grayson Ave.</p> <p>The submitters request that the Project works include remediation of the flood hazard</p>

NoR	Sub. No. and Name of Submitter	Relevant flood issues raised by the Submitter(s)
		Council specialist comment: The site at 43 Grayson Ave is subject to existing flooding risks due to its low-lying location. Without appropriate mitigation, works within the Puhinui Domain can potentially have significant flooding effects on the site. The Puhinui Domain works associated with the Project involve stormwater management by restoring the stream running through the park.
NoR2, NoR3 & NoR4a	NoR2-36, NoR3-22, NoR4A-6 – Minakshi Mohanlal NoR2-37, NoR3-21, NoR4A-5 – Avisha Mohanlal NoR2-68, NoR3-30, NoR4A-12 – Abhisekh Mohanlal NoR2-69 – Avisha Mohanlal	Increase of flooding. Council specialist comment: Overall, it is considered that the proposed flood hazard condition, will ensure that the flood effects of the Project will be mitigated to the extent practicable and will be less than minor.
NoR2	59 – Centuria Capital Limited (NZ)	The Property at 1/55 Lambie Drive (Bunnings as tenant) is identified on Auckland Council’s GIS as being subject to the 1% AEP flood plain and an overland flow path. It is unclear from the Assessment of Flooding Effects submitted with NoR2 as to whether the proposed works would result in an increase in flooding effects on the Property. Further assessment and clarification is required as to actual and potential flooding effects, and if, following such assessment, the Council is minded to recommend confirmation of NoR 2, Centuria submits appropriate conditions must be identified as necessary.  Council specialist comment: Part of the site at 1/55 Lambie Drive is subject to existing flooding risks, caused by flooding of the Puhinui Stream channel and overland flow paths. Works within the proposed future road corridor might result in flooding effects on the site.



NoR	Sub. No. and Name of Submitter	Relevant flood issues raised by the Submitter(s)
NoR2	71 – Andrea Mead & Dr Stephanie Mead	<p>Re 2/2 Ihaka Place</p> <p>The middle of Lambie Drive provides a large grassed island with a row of Norfolk Pine Trees. This will be replaced by concrete as the whole area would be concreted over for Rapid Bus Transit lane and bus stop. The concreted area will also be significantly wider, due to the front of residential properties being taken for concreted cycle ways and walkways.</p> <p>This increase in concrete and changes to the level of the land will mean a significant increase in flood risk for our property. All the rainwater accumulated on the increased concrete will need to be drained (with the loss of soakage from the current grassed area). Any overflow of rainwater will put our property at a direct and significant flood risk. Currently our property has never flooded as the grassed areas provide sufficient soakage.</p> <p>Any raise in land height placing the road height above our property will also increase our flood risk with surface water flowing off the concrete and onto our property.</p> <p>Council specialist comment: The site at 2/2 Ihaka Place is on a major overland flow path and is subject to existing flooding risks. Without appropriate mitigation, works within the proposed future road corridor can potentially have significant flooding effects on the site.</p>
NoR2 & NoR3	NoR2-73, NoR3-32 – Quadrant Properties Ltd	<p>As proposed, the NOR's would enable the Requiring Authority to increase in the level of flooding toward adjoining properties. The submitter considers that flooding effects should be managed within the NOR boundary, and not worsened as it relates to neighbouring properties.</p> <p>That a condition is included to require the Requiring Authority to ensure that the Project does not worsen any flooding effects onto neighbouring properties.</p>

NoR	Sub. No. and Name of Submitter	Relevant flood issues raised by the Submitter(s)
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Council specialist comment: Overall, it is considered that the proposed flood hazard condition, will ensure that the flood effects of the Project will be mitigated to the extent practicable and will be less than minor.

**Specialist assessment**

Flooding effects have been assessed for the council by Ms Zheng Qian, Council Healthy Waters Catchment Management Specialist, and Ms Amber Tsang, Jacobs flood risk planning specialist in a memo dated 16 May 2023, which is provided in Appendix 1 to this report.

The outcomes-based approach proposed by the Applicant to manage potential flood effects is considered by Ms Qian and Ms Tsang to be appropriate for the NoRs. However, they have concerns over the assessment methodology used by the Applicant which had assumed that all culverts under 600mm dia are blocked in assessing the pre and post project flood scenarios. The applicant has stated that this assumption was based on the requirement of Auckland Council’s Stormwater Code of Practice (**SWCoP**). It is not clear if their assessment had also assumed that pipes under 600mm dia are blocked.

Assuming culverts or pipes under 600mm diameter to be blocked is a requirement in the SWCoP for designing overland flow paths. This is to make sure that a conservative approach is applied for the design of any secondary overland flow path to ensure that properties are protected in case of primary pipe network blockage in extreme storm events.

However, if the Applicant uses this method to assess the pre and post project flood scenarios it is likely that the potential flood impacts of the Project will not be accurately identified. This is because by assuming culverts or pipes are blocked in the pre project flood scenario could falsely assume that some properties are already subject to flooding. These properties would not have been identified as being affected by the Project in the post project flood scenario. This is of particular relevance to properties that would not be flooded when the pipe network is operational but could be at risk of flooding when the local network is blocked.

This method is also likely, in Ms Qian and Ms Tsang’s opinion, to result in parts of the stormwater pipe network that are under 600mm dia not being identified for required capacity upgrade as part of the Project. As these smaller pipes are proposed to be excluded from the model, their performance and capacity requirements will not be assessed as part of the pre and post project flood hazard modelling assessment.

Ms Qian and Ms Tsang have reviewed the modelled flood levels and depths at key locations provided in the Applicant's Assessment and compared them with the Healthy Waters models. It is noted that the results are different between the two. While it is normal to have discrepancies between flood hazard modelling assessments, Ms Qian and Ms Tsang are concerned that the differences in the modelling results were caused by the Applicant's assumption of culverts or pipes under 600mm dia being blocked. As mentioned above, the Applicant's Assessment was based on the existing catchment models provided by Healthy Waters.

On this basis, Ms Qian and Ms Tsang consider that a more detailed flood modelling assessment should be undertaken at the detailed design stage to cover actual earthwork levels and existing and proposed stormwater infrastructure. The extent of the stormwater pipe network to be included in the flood modelling assessment shall be refined to enable a more accurate assessment of flood effects of the Project. For areas where properties are likely to be significantly affected by the Project, sufficient details including small size pipes will need to be included in the model, and any loss of storage due to earthworks will also need to be identified. Both pre and post project models are required to be submitted in an Outline Plan of Works (**OPW**) to Healthy Waters for review and comment. It is also recommended that the model extents and modelling methodologies shall be agreed with Healthy Waters prior to the detailed assessment being undertaken.

The Applicant's proposed flood hazard condition and modelling assessment only cover the effects from the 1% Annual Exceedance Probability (**AEP**) event. The 1% AEP is equivalent to a 1 in 100-year Average Recurrence Interval (**ARI**), meaning that it has a likelihood of occurring at least once every 100 years or a 1% chance of occurring in any given year. Considering that some properties along the proposed designation are at risk of flooding in storm events of 20% AEP and above, it is important to assess the more frequent events, in particular the 10% AEP flood levels. Including the 10% AEP rainfall event within the condition will also provide more certainty to the submitters that a comprehensive assessment will be undertaken.

Overall, it is considered by Ms Qian and Ms Tsang that the proposed flood hazard condition, subject to the recommended amendments as outlined below, will ensure that the flood effects of the Project will be appropriately mitigated and will be less than minor.

On statutory considerations, Table 12-2 of the Applicant's AEE sets out the natural hazard (including flood hazard and climate change) objectives and policies of the National Policy Statement on Urban Development (NPS:UD) and Auckland Unitary Plan Operative in Part (AUP:OP) that are relevant to the project. Ms Tsang agrees that the relevant objective and policies have been appropriately identified. The relevant flood hazard objective and policies of the AUP:OP are B10.2.1(2-6), B10.2.2(8) & (12), E36.2(2) & (4-6) and E36.3(3-4), (17-30) & (35).

The relevant flood hazard objective and policies of the AUP:OP acknowledge the functional and operational need for infrastructure to locate in a natural hazard area, including flood plains, while requiring that the risks to people, property and the environment are avoided or mitigated to the extent practicable.

Although in some areas the corridor passes through existing flood plains, the proposed developments have an operational and functional need to locate at the proposed location. This is demonstrated in the Applicant's AEE and Assessment of Alternatives. It is considered that the proposed flood hazard condition, subject to the recommended amendments as outlined above, will ensure that the flood effects of the project will be avoided or mitigated to the extent practicable. In summary, Ms Tsang considers the project is consistent with the relevant objectives and policies contained in Chapters B10 and E36 of the AUP:OP.

Ms Qian and Ms Tsang recommend the following amendments to NoR 1 to 4A Condition 14 and NoR4B Condition 12, with added text underlined and deleted text in strikethrough.

- (a) The Project shall be designed to achieve the following flood risk outcomes:
- (i) no increase in 1% AEP flood levels for existing authorised habitable floors that are already subject to flooding or with a freeboard of less than 150mm;
  - (ii) no more than a 10% reduction in freeboard in 1% AEP event for existing authorised habitable floors with a freeboard of over 150mm;
  - (iii) no increase in 1% AEP flood levels for existing authorised community, commercial and industrial building floors that are already subject to flooding;
  - (iv) no more than a 10% reduction in freeboard in a 1% AEP event for existing authorised community, commercial and industrial building floors;
  - (v) no increase of more than 50mm in 1% AEP flood level on land zoned for urban or future urban development ~~where there is no existing dwelling~~;
  - (vi) No increase in 10% AEP flood levels for existing authorised habitable floors that are at risk of flooding;
  - (vii) no new flood prone areas;
  - (viii) no increase in flood hazard (defined as flow depth times velocity) for main access to existing authorised habitable dwellings that are already classified as significant hazard. Significant flood hazard means flow depth  $\geq 0.3\text{m}$ , or flow depth  $\geq 0.1\text{m}$  and velocity  $\geq 2\text{ms}^{-1}$  as per Auckland Council Stormwater Flood modelling Specifications (November 2011 version); and
  - (ix) for areas with other hazard classifications, no more than a 10% average increase of flood hazard (defined as flow depth times velocity) for main access to authorised habitable dwellings existing at time the Outline Plan is submitted.
- (b) Compliance with this condition shall be demonstrated in the Outline Plan, which shall include flood modelling of the pre-Project and post- Project 10% & 1% AEP flood levels (for Maximum Probable Development land use and including climate change). The updated model shall be submitted to Auckland Council Healthy Waters for review and comment. The model extents and modelling methodologies shall be agreed with Auckland Council Healthy Waters prior to detailed assessment being undertaken.

(c) Where the above outcomes can be achieved through alternative measures outside of the designation such as flood stop banks, flood walls, raising existing authorised habitable floor level and new overland flow paths or varied through agreement with the relevant landowner, the Outline Plan shall include confirmation that any necessary landowner and statutory approvals have been obtained for that work or alternative outcome.

### **Planning assessment**

Based on the advice provided by Ms Qian and Ms Tsang, I consider that the adverse flooding and stormwater effects can generally be adequately mitigated by the implementation of conditions recommended for A2B NoRs 1; 2; 3; 4A (Condition 14 Flood Hazard) and 4B (Condition 12 Flood Hazard), as amended by Ms Qian and Ms Tsang. Those are shown in Appendix 5 Suggested Condition Sets.

I understand the key matters to be:

- Identifying the 1% and 10% AEP events as of concern for flooding and flood hazard management
- No increase in flood hazard for existing significant hazards
- OPW to include flood modelling
- Other matters raised in submissions (Project-wide).

Based on the advice provided by Ms Qian and Ms Tsang, I as reporting planner consider that the adverse flooding and stormwater effects can be avoided, remedied or mitigated, subject to an amended set of conditions being imposed for NoRs 1 to 4A and 4B. Regional consents will be obtained during detailed design of the Project. The amendments associated with this recommendation are set out in Appendix 5 to this report.

#### **4.4.6 Ecological effects**

### **Application**

#### **A2B ECOLOGICAL EFFECTS APPLICANT'S ASSESSMENT**

Effects on ecology are addressed in AEE section 9.11 and in the Assessment of Terrestrial Ecological Effects ('**AECE**') prepared by Kate Feickert of Te Tupu Ngātahi, and dated 9 December 2022. The Assessment of Terrestrial Ecological Effects assesses the actual and potential terrestrial ecological effects of the Project on the environment, where these relate to District Plan matters.

For information, freshwater habitats have been delineated in the assessment. Ecological matters that trigger Regional Plan and National Environmental Standard for Freshwater (**NES:FW**) consents will be assessed and approvals sought prior to construction.

The assessment follows the Ecological Impact Assessment (**EciA**) Guidelines, which provide a standardise matrix framework to assess the ecological value of identified features and evaluate the magnitude of potential effects that the Project could have on these features.

## **CONSTRUCTION EFFECTS - TERRESTRIAL VEGETATION**

Vegetation to be removed in A2B NoRs 1 to 3 that is subject to District Plan rules includes predominantly trees within road reserves and open space zones. Te Tupu Ngātahi considers this vegetation is highly fragmented and is of low and negligible ecological value. The removal of this vegetation will not introduce additional edge effects, as such the magnitude of effect will be low.

## **CONSTRUCTION EFFECTS - BATS**

In A2B NoR 1 and some parts of A2B NoR 2, Te Tupu Ngātahi considers there will potentially be a moderate level of effect for long-tailed bats (of very high ecological value) during construction activities. Night works may be required as part of construction, and lighting at night has the potential to disturb the bats utilising the stream (which the NoR crosses) as flight corridors.

## **CONSTRUCTION EFFECTS - BIRDS**

In A2B NoR 1, Te Tupu Ngātahi considers construction activities may have a moderate level of effect on the At-Risk wetland bird species pāteke, as it may lead to disturbance and displacement. Although the pāteke are likely habituated to a level of disturbance already due to the urban environment in which they are found, the magnitude of effect is expected to be high, especially as nest abandonment could result in the death of birds. Loss of District Plan vegetation may also lead to removal of nests and foraging habitat, and bird injury or death.

In A2B NoRs 4A and 4B, construction activities may also lead to disturbance and displacement of birds adjacent to the Project area. Te Tupu Ngātahi considers the level of effect will be high for At Risk – Declining wetland bird species, moderate for Pipit, and low for Not-Threatened birds. In addition, birds may lose roosting/foraging habitat, abandon or lose nests and also be at risk of mortality or injury during tree felling when the District Plan vegetation is removed. This effect will be limited to Not-Threatened birds only.

## **CONSTRUCTION EFFECTS - LIZARDS**

In A2B NoRs 4A and 4B, Te Tupu Ngātahi considers construction activities may have a very high level of effect to lizards. Under the current ecological baseline, lizards are not expected to be present within any of the District Plan vegetation to be removed. However, there is a reasonable probability that copper skinks will utilise these PL.1 habitats in the likely future environment. Construction activities may therefore result in injury or death of lizards.

## **OPERATIONAL EFFECTS**

The Project involves the addition of a BRT corridor within a predominately urban landscape. As such, many of the potential operational effects of the Project such as habitat fragmentation, noise and light pollution are pre-existing.

Te Tupu Ngātahi considers that potential operational effects include reductions in habitat connectivity and impacts from noise, light and vibration upon indigenous fauna, as well as potential mortality from vehicle strike.

In A2B NoR 1 and parts of A2B NoR 2, a moderate level of effect to bats during operation may occur. This is due to the presence of the upgraded roadway leading to fragmentation of habitat, and impacts of lighting spillage and noise which may impact behaviour of both bats and insects (their prey).

### **RECOMMENDED MEASURES TO AVOID, REMEDY OR MITIGATE ACTUAL OR POTENTIAL ADVERSE EFFECTS**

To mitigate the potential construction and operational effects on bats, Te Tupu Ngātahi recommends pre-construction surveys should be undertaken to confirm bat presence. If bats are identified to be present, then a management plan framework should be implemented. This plan would incorporate mitigation measures such as reduction of light spill and works at night near bat habitats, and siting of compounds and laydown areas away from bat habitats.

For birds, pre-construction bird surveys should be undertaken to determine which Threatened or At-Risk bird species are present. If present, a management plan should be developed to manage and mitigate adverse construction effects.

If pipit are present within the nearby grassland habitats, these should be mown outside of the pipit breeding season and managed as short grass thereafter to prevent pipits nesting adjacent to the Project area.

To manage the effects of vegetation removal resulting in loss of habitat and bird injury or death, Under the Wildlife Act 1953, impact management measures will be required to prevent killing or injuring native birds during tree felling.

If the mitigation detailed above are implemented, Te Tupu Ngātahi considers that the magnitude of construction and operational effects from the Project on terrestrial ecology within and adjacent to the Project area would be reduced to low.

To address the potential construction effects on terrestrial ecology an Ecological Management Plan (**EMP**) is to be prepared if the above fauna is present following a pre-construction survey. The EMP will set out methods to minimise impacts of construction and operational activities on the ecological values of Identified Biodiversity Areas as far as practicable.

Regional Plan and National Environmental Standard consents are to be sought prior to construction with respect to the following matters:

- Removal of riparian vegetation;
- Streamworks;
- Earthworks;
- Works within wetlands; and
- Discharges.

For lizards, it is noted that these are located to the north of the existing SH20B. Whilst the proposed designation boundaries extend to this area, vegetation clearance is not proposed as the BRT corridor and walking and cycling facilities will be constructed to the south of the existing SH20B. It is also noted that vegetation clearance in this area would require a consent under the Regional Plan.

### **Submissions**

A submission on ecology was received in relation to the following matters:

- Ecological contribution of Norfolk pines in Lambie Drive

<b>Submission Number</b>	<b>Submitter's Name</b>	<b>Issues Raised</b>	<b>Relief Sought (From Submitter)</b>	<b>Technical Assessment of Council Ecologist</b>
NoR2-71	<b>Andrea Mead &amp; Dr Stephanie Mead</b>	A Mead and Dr S Mead oppose the removal of Norfolk pine street trees outside 1/1 Ihaka Place. A Mead and Dr S Mead consider that the trees provide ecological value. Additionally, they consider the grass area beneath the trees as providing rainwater soakage. It is considered that the removal of pines "will be a significant ecological loss".	Norfolk pines stay <i>in-situ</i> / no designation alteration and development to be undertaken.	No justification was provided to support that the Norfolk pine provide ecological value nor the removal will result in significant loss. From an ecological perspective, Norfolk pine street tree have low ecological value. Revegetation planting at a ratio of 2:1 is proposed and considered ecologically appropriate for replacing exotic street trees.

### **Specialist assessment**

Effects on ecology have been assessed for the council by Ms Alicia Wong, Ecologist, Auckland Council in a memo dated 28 April 2023, which is provided in Appendix 1 to this report. Ms Wong's memo focusses on the following matters:

- Wetlands
- Aquatic ecology
- Terrestrial ecology
- Assessment of ecological effects and management methods
- Submission
- Recommendations on conditions.



## **WETLANDS**

The Ecology Report (AEcE) only provided for two wetland losses, Waokauri B.1 and Waokauri E.1, whereas the drawings in the Ecology Report and plans suggest additional wetland loss are expected to be incurred within the following designation:

NoR1 - This new designation traversing from Botany Town Centre to Rongomai Park. Wetlands are identified as named in the Assessment of Ecological Effects. Plans refer to SGA-DRG-STH-007GE-1000.

(i)Taraire A W.2 – design drawings indicate earthworks / fill batter at the most upslope extent, which may alter hydrology.

(ii)Otara W.1 – design drawings indicate earthworks / fill batter at the most upslope extent, which may alter hydrology.

NoR4A - This new designation traversing from SH20/20B Interchange to Orrs Road. Wetlands are identified as named in the Assessment of Ecological Effects. Plans refer to SGA-DRG-STH-007-GE-4000.

(i)Waokauri C W.2 – design drawings indicate earthworks / fill batter at the toe of the wetland extent, which may alter hydrology.

Section 10.5.5 of the Ecology Report does however note, that in addition to the direct loss in wetland area identified, that additional wetlands can be impacted by indirect activities, and so details regarding the offset and/or compensation requirements will be addressed during the future regional resource consent application.

Ms Wong agrees with the general assessment and findings in relation to wetland ecological matters, aside from matters raised above, however understands these will be dealt with in the regional consenting stage.

## **AQUATIC ECOLOGY (STREAMS AND WETLANDS)**

Ms Wong considers that the Ecology Report is a high-level assessment of effects associated with streams; being culverting, reclamation and diversions. The ecological report identifies mitigation will be required as a result of stream and wetland loss/impacts. 24m of stream length available for restoration within the designation boundary have been identified. Similarly, 248 m<sup>2</sup> of wetland area available for restoration with the designation boundary have been identified. However, the amount of stream loss and wetland loss is expected by Ms Wong to be greater than the area identified as available for mitigation and offsetting. Therefore, these restoration areas and stream length alone shall not be relied on. Instead, Ms Wong considers a full comprehensive offsetting model must be adopted during regional consent to calculate an ecologically robust and appropriate quantum for mitigation and offsetting that may be required for both stream and wetland impacts.

Ms Wong agrees with the assessment and findings in relation to freshwater ecological matters.

## **TERRESTRIAL ECOLOGY**

Effects associated with terrestrial ecological matters; vegetation removal outside of roads and public species, riparian vegetation removal, and wetland buffer vegetation removal area are all regional plan considerations. Potential adverse effects within the proposed alignment have been identified, highlighting the need for these to be further addressed at the regional consenting stage.

Ms Wong agrees with the assessment and findings in relation to terrestrial ecological matters.

## **ASSESSMENT OF ECOLOGICAL EFFECTS AND MANAGEMENT METHODS**

Ms Wong considers that fauna values and effects associated with the loss of habitat (vegetation to be cleared) and construction activities have already been identified in the AEcE assessment of terrestrial ecology effects report (i.e. vehicle strike, light disturbance, injury or death from vegetation removal of nesting, roosting habitat etc) as District Plan matters (as highlighted in Appendix B). Ms Wong is in agreement with the assessment of values and actual/potential adverse effects resulting from the construction and operation.

Ms Wong considers the proposed, pre-construction ecological surveys under Condition 24 for NoR1,2,3,4A (and Condition 22 for NoR4B) is therefore inappropriate as the values and effects have already been identified. There is no need to revisit this assessment during the Outline Plan of Works pre-construction. Ms Wong would however support the Pre-Construction Ecological Surveys being undertaken and used to prepare an Ecological Management Plan that is more focussed on areas of high probability of requiring management of bats, birds, lizards, and revegetation planting. She has therefore recommended changes to Condition 24 for NoR1,2,3,4A (and Condition 22 for NoR4B) to remove reassessment of values and effects (identified), rather the pre-construction surveys are to narrow down management based on results from actual and potential presence. A more simplified condition for an Ecological Management Plan, is in her opinion all that is required and has been recommended for Condition 25 for NoR1,2,3,4A (and Condition 23 for NoR4B), as shown in Appendix 5 Suggested Condition Set.

Ms Wong considers that, if wetland loss is unavoidable, mitigation is unlikely to be possible, so offset or compensation measures will need to be considered.

The NPS:FM 2020 requires consideration of current and potential values of wetlands (section 3.21 and 3.22(3)(a)). While an ecological value of 'moderate' has been assigned to the wetlands directly impacted by the proposed designations, it is not clear to Ms Wong if this ecological value is the current state of the wetlands or the potential value. In relation to wetlands, 'loss of value' includes the loss of potential value (NPS:FM 2020, Section 3.21).

The magnitude of effects associated with terrestrial habitat loss has been applied whereas effects associated with wetland habitat loss have not. If the loss of wetlands cannot be avoided by the future project works, the magnitude of effect would likely be 'Very High' (through direct reclamation), and the overall level of effect would be 'High' (given a moderate ecological value). This typically requires that further measures to offset or compensate are undertaken.

Ms Wong agrees that the quantum of mitigation, offset, or compensation required must be calculated once a full understanding of the quality and extent of wetlands, streams, and terrestrial vegetation is known, this shall be at the regional plan consenting phase. A best practice robust and transparent biodiversity accounting framework would need to be applied to determine the quantum of offset required for each ecotone (wetland, streams, and terrestrial vegetation).

Auckland Unitary Plan: Operative in Part Regional Policy Statement B7.2 (Indigenous Biodiversity) and 7.3 (Freshwater Systems) are applicable to this assessment. The proposal is largely consistent with B7.2. In general, high ecological value areas have been avoided where practicable and any residual adverse effects will in Ms Wong's opinion be offset or compensated.

### **ECOLOGY CONDITION RECOMMENDATIONS**

Additions to ULDMP Condition 13(h)(iii) of NoRs1 – 4A, with added text underlined:

- (iii). Detailed specifications relating to the following:
  - A. weed control and clearance;
  - B. pest animal management (to support plant establishment);
  - C. ground preparation (topsoiling and decompaction);
  - D. mulching; ~~and~~
  - E. plant sourcing and planting, including hydroseeding and grassing, and use of eco-sourced species for restoration purposes; and
  - F. restoration planting which remedies the loss of ecosystem services provided by vegetation identified for removal, including the replacement of planting which fails to establish.

Ms Wong recommends Condition 24 Pre-Construction Ecological Survey of NoRs 1 – 4A and Condition 22 Pre-Construction Ecological Survey of NoR4B be amended as follows, with added text underlined and deleted text in strikethrough:

- (a) At the start of detailed design for a Stage of Work, an updated ecological survey shall be undertaken by a Suitably Qualified and Experienced Person. The purpose of the survey is to inform the detailed design of ecological management by:
  - (i) confirming whether the ~~species of value~~ indigenous flora and fauna (including Regionally or Nationally At-Risk or Threatened species) within the Identified Biodiversity Areas recorded in Schedule 3 are still present; ~~and~~
  - ~~(ii) confirming whether the project will or may have a moderate or greater level of ecological effect on ecological species of value, prior to implementation of impact management measures, as determined in accordance with the EIANZ guidelines (or any subsequent updated version).~~
- (b) Mana whenua shall be invited as partners to observe how the ecological survey in (a) will be undertaken.
- (c) If the ecological survey in (a) above confirms the presence of ~~ecological species~~

of value indigenous flora and fauna (including Regionally or Nationally At-Risk or Threatened species) in accordance with Condition 24(a)(i) and that effects are likely in accordance with Condition 24(a)(ii), then an Ecological Management Plan (or Plans) shall be prepared in accordance with Condition 25 for these areas (Confirmed Biodiversity Areas).

Ms Wong recommends Condition 25 of NoRs 1 – 4A and Condition 23 of NoR 4B be changed to the following:

Ecological Management Plan (EMP)

An Ecological Management Plan shall be prepared for any Confirmed Biodiversity Areas (confirmed through Condition 24 on NoRs1 to 4A or Condition 22 on NoR4B) prepared by a suitably qualified ecologist, to manage effects on bats, birds, lizards, and the removal of vegetation (e.g. vegetation removal in roads, public spaces, ONFs, ONLs, HNCs, and ONCs) within NoR1 – 4B, must be submitted for certification by the Council, prior to any works commencing within the designation (NoR 1 – 4B). The ecological management plan shall include, but not limited to the following:

- Bat Management
- Bird Management (all bird species)
- Lizard Management
- Revegetation Planting

The certified Ecological Management Plan (EMP) for any Confirmed Biodiversity Areas (confirmed through Condition 24 on NoRs1 to 4A or Condition 22 on NoR4B) shall be implemented in all respects, unless the Council, in consultation with Council's ecologist, agrees in writing to any alteration.

The EMP shall be consistent with best practices methodologies and complicit with ecological management measures to be undertaken in compliance with conditions of any regional resource consents for the Project.

**Planning assessment**

I understand the key matters to be:

- Some wetland effects have not been identified in the AEcE.
- Ms Wong is concerned that the Pre-Construction Ecological Surveys set too high a bar at 'Confirmed Biodiversity Areas' and should prompt a broader-reaching EMP

Much of the Project effects on ecology will be managed through the regional consenting process, and in accordance with NPS:FW and NES:Freshwater nearer to the time of construction commencing.

In acknowledgement that the Project works may not commence for another 15 years, potentially within an altered environment, and to avoid applying the EMP to all 14.9km of an existing urban roading environment, I support the Council Ecologist's recommended changes to the conditions on Pre-Construction Ecological Survey and Ecological Management Plan. I would support the Pre-Construction Ecological Surveys being undertaken and used to prepare an Ecological Management Plan that is more focussed on areas of high probability of requiring management of bats, birds, lizards and revegetation planting.

Based mainly on the advice provided by Ms Wong, I consider that the adverse effects on ecology can be avoided, remedied or mitigated, subject to an amended set of conditions being imposed for NoR1 – 4B, in conjunction with regional consents being obtained during detailed design of the Project. The amendments associated with this recommendation are set out in Appendix 5 to this report as an amended Suggested Conditions Set.

#### **4.4.7 Historic heritage and archaeological effects and Notable trees**

##### **Application**

##### **A2B HISTORIC HERITAGE ARCHAEOLOGY AND NOTABLE TREES APPLICANT'S ASSESSMENT**

Historic heritage and archaeological effects are addressed in AEE section 9.12 and in the Assessment of Built Heritage Effects ('**ABHE**') prepared by John Brown of Te Tupu Ngātahi, and dated 9 December 2022, and in the Assessment of Archaeological Effects ('**AArchE**') prepared by Arden Cruickshank of Te Tupu Ngātahi, and dated 9 December 2022.

Notable trees effects are addressed in AEE section 9.4 and in the Assessment of Arboricultural Effects, by Matthew Paul and Peter Weir of Te Tupu Ngātahi, and dated 9 December 2022. They are only reported as arboricultural effects and not assessed as notable trees with historic heritage values.

The Assessment of Effects on Built Heritage and the Assessment of Effects on Archaeology assess the actual and potential effects of the future construction and operation of the Project as it relates to historic heritage and archaeology effects. These assessments do not provide an assessment of Māori cultural values.

The assessments found that there are twelve recorded archaeological sites and nine historic heritage sites within 200 m of the A2B NoRs. Eleven of the twelve archaeological sites are outside of the proposed scope of works and/or destroyed. One site (R11/1973) was not able to be located during field survey, so it cannot be determined if it will be affected by any future works associated with the Project.

Two of the nine historic heritage sites are trees, one site is a milepost on Great South Road which was removed in the 20th Century, and the remainder are built heritage items.

With respect to built heritage, A2B NoR 3 contains Cambria House at 250 Puhinui Road, a Category A\* Scheduled place. Two non-scheduled built heritage sites have been recorded as having moderate historic heritage significance:

- The fire-damaged former Gardener's Cottage at 250 Puhinui Road, associated with Cambria House; and
- A stone/bronze (WWII USA presence) memorial in the road reserve at the junction between Puhinui Road and Kenderdine Road.

The Project does not affect any scheduled or nationally listed built heritage places of historic heritage significance in A2B NoRs 1, 2, 4A and 4B.

### **CONSTRUCTION EFFECTS**

Te Tupu Ngātahi states that there are no identified archaeological or historic heritage items which will be directly affected by the Project. However, Te Tupu Ngātahi assumes that the entire extent of works would be subject to topsoil stripping and pavement removal, and any previously unrecorded sub-surface archaeological material that may be encountered during construction within the extent of works would be destroyed and would not be able to be preserved or avoided.

Te Tupu Ngātahi considers that the greatest level of effect for built heritage would be generated through the likely removal or demolition of the fire-damaged former Gardener's Cottage, resulting in moderate, permanent adverse effects on built heritage values. Likely loss of landscaping and mature trees within the road reserve associated with the Cambria House scheduled historic heritage place may also result in low, permanent adverse effects on context and aesthetic values.

Te Tupu Ngātahi considers that construction works may also lead to potential or accidental damage of the Memorial Stone and potential demolition or removal of pre-1940 buildings. However, the adverse effects of this on built heritage values are proposed as low. If there is a need for temporary removal of the Memorial Stone to storage and reinstatement after construction, the US Ambassador to New Zealand and the RSA should be consulted by the Requiring Authority.

### **OPERATIONAL EFFECTS**

Te Tupu Ngātahi identifies there are no known operational effects on archaeology or historic heritage.

### **RECOMMENDED MEASURES TO AVOID, REMEDY OR MITIGATE CONSTRUCTION EFFECTS**

To address the potential construction effects on archaeology and built heritage, Te Tupu Ngātahi proposes that a Historic Heritage Management Plan (**HHMP**) will be prepared prior to the start of construction. The HHMP will:

Set out the methods for the identification and assessment of historic heritage within the designation to inform detailed design;

- Identify the known and potential historic heritage sites within the designation; and
- Set out the Heritage New Zealand Pouhere Taonga Act 2014 (**HNZPTA**) authority requirements for any pre-1900 sites.

Since archaeological survey cannot always detect sites of traditional significance to Māori, or wāhi tapu, Te Tupu Ngātahi proposes that the appropriate Mana whenua authorities will be consulted regarding the possible existence of such sites.

Any potential adverse effects on previously unrecorded archaeological deposits that are exposed during the works can be mitigated by obtaining a precautionary General Archaeological Authority under the HNZPTA authority. Where effects on known (or unknown) archaeological sites cannot be avoided, an archaeological investigation will be undertaken and standard archaeological practice of any affected archaeological sites will be undertaken in accordance with the Authority.

Te Tupu Ngātahi states that the built heritage effects associated with the demolition of the Gardener's Cottage will be mitigated through the implementation of the HHMP.

### **Submissions**

Submissions have been received in relation to the following Historic Heritage matters:

- HNZPT amendments to conditions to require more detailed historic heritage impact assessment;
- Appropriateness of the HHMP to manage effects on historic heritage; and
- Management of effects on the Gardener's Cottage.

Heritage New Zealand Pouhere Taonga (HNZPT) NoR1-37, NoR2-66, NoR3-31, NoR4A-11, NoR4B-5 requested a more detailed historic heritage impact assessment on Cambria House and its surrounds before design work commences on built heritage grounds; and opposed the use of a HHMP as a management plan for effects on historic heritage. Mr Windwood disagrees with their request for a more detailed historic heritage impact assessment before design work commences on built heritage grounds, as he considers that the proposed use of a Historic Heritage Management Plan (HHMP) agreed by way of a condition is appropriate for the level of change proposed by the NoR, where much of the built heritage within the scope of the Project has already been identified and there is a low likelihood of further buildings being considered significant.

While Mr Woodwind agrees with HNZPT's submission that the Gardener's Cottage may well be of some significance to the historic heritage values of the adjacent scheduled historic heritage place, he considers that the proposed later agreement of a HHMP by condition is an appropriate method for the management of the Gardener's Cottage and the landscaped treatment of the front boundary of Cambria House.

All the HNZPT submissions express concern that the effects of any Designation or future construction will not be addressed until an Outline Plan of Works (OPW) is prepared. It is then claimed that a HHMP (Historic Heritage Management Plan) wouldn't be sufficient and/or is duplication of the requirements of the HNZPT Act. Direction is then provided on what should be in the HHMP; rather than conflating matters (as stated by the submitter), it appears there is confusion created by this mixing of various statutory documents, their purpose, which Act they respond to and by whom they would be provided for which specific stage of works.

Ms Eaves draws the submitter's attention to proposed Condition 8(c) that states *Outline Plans may be submitted in parts or states to address particular activities ... or a Stage of Work of the project*. This may provide some reassurance.

Cruikshank's assessment in the AEE recommends an Archaeological Authority be obtained through the usual process. Any application to the HNZPT requires a separate set of documents which would address the submitters concerns; moreover, they would not be tied to the timeline of the NoR process (through the RMA) as the HNZPT application process falls under that particular Act.

The submitter wants all RMA and HNZPTA documents to be combined into a single document that will (it is claimed) facilitate mitigation of effects through a *more fulsome historic heritage impact assessment* for both built and archaeological matters. Since the AUP:OP was adopted, this claim has been made routinely by HNZPT. Yet the provisions and definitions contained in their own Act would render such a document *ultra vires* when dealing with historic heritage matters raised through the RMA process. Simply put, the processes appear parallel, but the outcomes are quite different.

In NoR3-31 HNZPT additional detail is provided regarding the HNZPT List property #7351, Cambria Park homestead. For statutory matters regarding this List, the HNZPT Act is the appropriate management mechanism, including any concerns over GIS mapping errors. Usefully, this submission provides a date for the first land taken for road widening in about 1969. Ms Eaves concurs with statements made regarding the effects of NoR3 on the garden setting of Cambria, and the threat to Notable trees along this road.

### **Specialist assessment – built heritage**

Effects on built historic heritage have been assessed by Mr Dan Windwood, Senior Built Heritage Specialist, Auckland Council in a memo of 22 May 2023, which is provided in Appendix 1 to this report. Mr Windwood focusses his report on the built heritage sites identified by Te Tupu Ngātahi in their assessment. These built heritage sites are on Puhinui Road within and adjacent to NoR3.

Mr Windwood generally agrees with the methodology used by the applicant's built heritage specialist. He also concurs with the assessment provided of the heritage value of the memorial stone, and the management of any adverse effects to it.

The loss of the former gardener's cottage and original nineteenth century dwelling on the site is deeply unfortunate. Mr Windwood agrees that the condition of the building means that it cannot be relocated and restored elsewhere on the property and as a consequence preservation by record through detailed building recording will be necessary to partially mitigate its loss.

The loss of mature planting on the original boundary of Cambria House (UID#01469), a Category A\* Scheduled Historic Heritage Place, although outside of its scheduled extent of place has been assessed as having a low permanent adverse effect on context and aesthetic values. On its own, Mr Windwood would agree with the applicant's specialist assessment that this level of harm would be appropriate. However, taken into consideration with the loss of the wider historic landscape surrounding the house that has occurred over time, Mr Windwood considers that the level of harm to the setting of the scheduled historic heritage place would have a moderate permanent adverse effect on context and aesthetic values. While he agrees with the recommendation that replanting and new landscaping can at least partially mitigate this harm, he considers that heritage input should be sought when designing this element.

Finally Mr Windwood also supports that interpretation opportunities are undertaken throughout the Project and recommends that a suitable programme of works is achieved by condition.



Overall, Mr Windwood considers the Project to be consistent with historic heritage provisions of the AUP:OP.

Mr Windwood considers Heritage New Zealand Pouhere Taonga, the Papatoetoe Historical Society and the Cambria Park Homestead Steering Committee (or similar/subsequent committee) affected persons/parties in regard to 250/252 and 250A Puhinui Road, and the Papatoetoe Historical Society an affected person/party in regard to the memorial stone.

Mr Windwood agrees with the assessment of effects set out in paragraph 9.12 of the AEE and the Assessment of Built Heritage Effects in Volume 4. He considers that the Project will result in limited risk from a built heritage perspective, and the conditions proposed are appropriate.

Mr Windwood focusses his report on the built heritage sites identified by Te Tupu Ngātahi in their assessment. These built heritage sites are:

### **Specialist assessment – archaeology**

Effects on archaeology have been assessed by Ms Myfanwy Eaves, Senior Specialist Archaeology, Auckland Council in a memo dated 24 May 2023, which is provided in Appendix 1 to this report. Ms Eaves' memo focusses on the following matters:

- Treatment of Cambria Park – Military Camp, Cambria House with trees, and Flowering gum;
- Conditions;
- Notable trees as heritage items and archaeological sites; and
- Approach to unidentified archaeological sites.

Ms Eaves initially reviewed the draft NoRs in October and December 2022 and confirmed (to the council planner) at that time that there were recorded historic heritage sites within the Project area that are identified in Schedule 14 Historic Heritage Schedule to the AUP:OP. In general, she concurs with statements made by the applicant's archaeologist, however does not concur with all statements made regarding the historic heritage resource within the boundary of NoR3. In order to provide brief summaries of the resource, Ms Eaves considers the significance of some items has been downplayed / omitted and therefore a true appreciation of the significance of some elements has not been conveyed.

Ms Eaves provides relevant information in her Technical Memo, indicating that these three locations (Cambria Park – Military Camp, CHI17015; Cambria House (UID#01499) with trees (UID#1514); and Flowering gum *Corymbia ficifolia*, AUP UID#1526) are historically connected and the proposed effects on them are more than minor. There is a memorial plaque (CHI15944) set in a rock near the Puhinui Station, commemorating 50 years since the US troops had been stationed the camp. The plaque and rock were relocated slightly to facilitate the development of Puhinui bus and train station complex.

Cambria House (UID#01499) with trees (UID#1514): Ms Eaves considers that Mr Cruikshank has not provided information on this pre-1900 property. A separate subject matter report examines this place and considers the removal of mature trees to have a “low permanent adverse effect on context and aesthetic values”. Ms Eaves left these built heritage matters for her built heritage and arboreal effects colleagues to address, and concentrated on the archaeological (historic heritage) landscape. The farm manager lived in the ‘Gardener’s Cottage’ (recently fire-damaged) since around 1892.

Flowering gum *Corymbia ficifolia*, AUP UID#1526: The third and final feature affected by the NoR3 proposal is this tree, now on the corner of Puhinui Road and Vision Place, just on the eastern side of SH20. Ms Eaves notes that a SH16 Whenuapai NoR proposal has avoided the Notable Trees along the route by changing the proposed alignment. There are at least two trees proposed for removal in the Airport to Botany proposal which are also Notable. Ms Eaves suggests the proposed A2B alignment makes provision for the retention of the Notable Trees (2) affected by this proposal. She considers the inequity between the Notable Trees of the Whenuapai area and those along Puhinui Road requires addressing.

Notable trees: Ms Eaves considers there is an overlap between history, archaeology and older landscapes with vegetation of specific types and designs. Therefore, comments made in her Technical Memo regarding any vegetation allude to the age of the specimens and the potential for evidence of pre-1900 activity at that location.

On statutory considerations, Ms Eaves examined the Project against the following relevant provisions of the AUP:OP: D17 Historic Heritage Overlay and Schedule 14.1 Historic Heritage; E11 Regional Land Disturbance; B5 Regional Policy Statement for Historic Heritage, and; Chapter E26 Infrastructure. Overall, she considers the Project to not be consistent with historic heritage provisions of the AUP:OP.

On other statutory documents: Ms Eaves is familiar with the HNZPT Act 2014, including the sections relating to the process for obtaining archaeological authorities and, as the Applicant has agreed to obtain an Authority from HNZPT, she is satisfied that the proposal is consistent with this Act. For completeness, however, she notes the requirement in the Act requiring a stand-down period following the granting of an authority and before commencing any work on site.

All the HNZPT submissions express concern that the effects of any Designation or future construction will not be addressed until an Outline Plan of Works (OPW) is prepared. It is then claimed that a HHMP (Historic Heritage Management Plan) wouldn’t be sufficient and/or is duplication of the requirements of the HNZPT Act. Direction is then provided on what should be in the HHMP; rather than conflating matters (as stated by the submitter), it appears there is confusion created by this mixing of various statutory documents, their purpose, which Act they respond to and by whom they would be provided for which specific stage of works.

Ms Eaves draws the submitter’s attention to proposed Condition 8(c) that states *Outline Plans may be submitted in parts or states to address particular activities ... or a Stage of Work of the project.* This may provide some reassurance.

Mr Cruikshank's assessment in the AEE recommends an Archaeological Authority be obtained through the usual process. Any application to the HNZPT requires a separate set of documents which would address the submitters concerns; moreover, they would not be tied to the timeline of the NoR process (through the RMA) as the HNZPT application process falls under that particular Act.

In NoR3-31 HNZPT additional detail is provided regarding the HNZPT List property #7351, Cambria Park homestead. For statutory matters regarding this List, the HNZPT Act is the appropriate management mechanism, including any concerns over GIS mapping errors. Usefully, this submission provides a date for the first land taken for road widening in about 1969. Ms Eaves concurs with statements made regarding the effects of NoR3 on the garden setting of Cambria, and the threat to Notable trees along this road.

Ms Eaves suggested Conditions as follows:

Ms Eaves states that the suggested Condition 23 HHMP applies only to NoRs 1,2,3 and 4A, and recommends a new, in-draft Waka Kotahi Heritage Management Plan condition for NoR4B. However, there is a proposed HHMP Condition 21 on NoR4B, similar to the proposed Condition 23 on NoRs 1 to 4A

In general, the draft conditions provided with the application, Condition 23 HHMP for NoRs1 – 4A and Condition 21 HHMP for NoR4B, are acceptable to Ms Eaves. However, to achieve RMA Part 2, 6(f) Historic heritage outcomes, an addendum to the HHMP should be provided and certified by the Manager Heritage Unit ([heritageconsents@aucklandcouncil.govt.nz](mailto:heritageconsents@aucklandcouncil.govt.nz)) at least two weeks prior to earthworks commencing on site. Matters to be included in the addendum should include (but not be limited to):

1. Provision in the methodology for circa 1900 and post 1900 sites and artefacts to be recorded, and for the potential for retention of artefacts for re-use in the road reserve area (or similar) near where they are found. This re-use is to be developed between the Consent holder (or any contractor) and the Heritage Unit, Auckland Council. [Condition 49 identified unrecorded historic heritage, however, the supplied assessment only addresses archaeology, which forms only part of Part 2 s6(f) definition.
2. Final reports submitted to comply with external requirements (archaeological authority) should also be shared with the schools, and similar, in the area. This is to enable institutions to develop an understanding of NZ history in their community. [Condition 50 is an ordinary Compliance and Monitoring requirement. The provision of a copy of the final report to a larger audience may go some way to addressing concerns over the temporary effects of construction]
3. For completeness only, Ms Eaves suggests the inclusion of an Advice note regarding the Protected Objects Act 1975.

In Ms Eaves opinion, the Project will require extensive earthworks to be undertaken in a staged manner. Some of these areas have been previously excavated, some are pristine. This presents risk of damage or destruction to subsurface, unknown, historic heritage and archaeological objects and sites. This risk can be addressed through the application for an appropriate permit, namely an Archaeological Authority.

The development and incorporation of public interpretation tools across and within this project will help mitigate for the destruction of sites and places.

Ms Eaves agrees with the assessment of effects set out in paragraph 9.12.3 of the Applicant's Assessment of Environmental Effects and the Assessment of Archaeological Effects in Volume 4.

In her view, the Project will result in little to no risk from an archaeological and historic heritage perspective, and the conditions proposed are appropriate to manage any risk of damaging or destroying the historic heritage resource.

### **Specialist assessment – Notable trees**

Effects on Notable trees have been assessed by Mr West Fynn, Senior Heritage Arborist, Auckland Council in a memo dated 21 April 2023, which is provided in Appendix 1 to this report. Mr Fynn's memo focusses on the following matters:

- Effects on two notable trees within NoR3, and
- Their arboricultural conditions, and proposed lack of mitigation measures.

1514	<i>Camellia sp., Magnolia sp., Cordyline australis, Ailanthus altissima, Prumnopitys ferruginea, Podocarpus totara, Quercus robur, Ulmus sp., Phoenix canariensis</i>	Camelia, Magnolia, Cabbage Tree, Tree of Heaven, Miro, Totara, English Oak, English Elm, Phoenix Palm		Puhinui Road 250	Papatoetoe	Lot 1 DP 184348
1526	<i>Corymbia ficifolia</i>	Flowering Gum	1	Puhinui Road (road reserve on corner with Vision Pl.)	Papatoetoe	

Mr Fynn considers that at this stage there is insufficient information in terms of the actual distance of encroachment of proposed works to the notable trees and the exacting nature of those works in terms of the potential effects on those trees and how they can be managed. He also contests that the form and structure of the notable Magnolia tree, with recognised heritage value, is such that it would justify the imminent removal of this tree.

Similarly, it is stated that the removal of the Red Flowering Gum tree is justified because there are structural concerns with this tree and it would require on-going maintenance pruning. Mr Fynn does not share the structural concerns for this tree and states that it has withstood all previous and recent storms without significant failure combined with the fact that it is, in his professional opinion, possibly the best example of the species nationally and certainly locally as well as being a very prominent and significant tree in terms of visibility and dominance within the local area as one of the biggest trees there and highly visible to many people including from the motorway.

He also questions what pruning would need to be undertaken to address the stated structural concerns and why is that not an option? The Applicant's General Arrangement Plans show substantial earth-working to create a batter slope around the current tree location. A tree of that significance warrants consideration and retention. He is also concerned that there are also not alternative designs and measures put forward to allow for the better on-going retention of these trees and why such alternatives have been discounted as not viable. Similarly, tree relocation has not been considered.

Mr Fynn considers that stating that issues will be addressed under a tree management plan is too vague and does not allow for a full and considered assessment. From his perspective as Senior Heritage Arborist, and in his professional opinion, the removal of the subject notable trees would be a poor outcome when other alternatives have not been thoroughly considered. As such, he is not supportive of the current proposal where the notable trees would not be retained and worked around.

Mr Gavin Donaldson, Council Senior Arborist, supports Mr Fynn's assessment, conclusions and recommendations, and notes that the removal of a Scheduled Notable tree in the AUP:OP in chapters D13 and E26 is listed as being a Discretionary Activity.

### **Planning assessment**

I understand the key matters to be:

- Effects on the identified historic heritage sites, including on their physical settings;
- Effects on recorded archaeological sites;
- Effects on unrecorded archaeological sites;
- Effects on Notable trees; and
- Amendments to conditions, including those arising from the HNZPT submission.

In relation to effects on identified historic heritage sites, based on the advice of Mr Windwood and Ms Eaves, I support amendments to the conditions to provide a more appropriate framework for managing adverse effects.

In relation to effects on unrecorded archaeology, I support the advice note cross-referencing the AUP accidental discovery protocol as proposed by Te Tupu Ngātahi. I note that the Gardener's Cottage was built prior to 1900, so it will be classified as an archaeological site.

Mr Windwood generally agrees with the methodology used by the applicant's built heritage specialist. He also concurs with the assessment provided of the heritage value of the memorial stone, and the management of any adverse effects to it. I agree with Mr Windwood that the condition of the Gardener's Cottage building means that it cannot be relocated and restored elsewhere on the property and as a consequence preservation by record through detailed building recording will be necessary to partially mitigate its loss (NoRs1; 2; 3; 4A Condition 23 (b)(vi) recording of heritage sites).

The loss of mature planting on the original boundary of Cambria House (UID#01469), a Category A\* Scheduled Historic Heritage Place, although outside of its scheduled extent of place has been assessed as having a low permanent adverse effect on context and aesthetic values. On its own, Mr Windwood would agree with the applicant's specialist assessment that this level of harm would be appropriate. However, taken into consideration with the loss of the wider historic landscape surrounding the house that has occurred over time, Mr Windwood considers that the level of harm to the setting of the scheduled historic heritage place would have a moderate permanent adverse effect on context and aesthetic values.

While he agrees with the recommendation that replanting and new landscaping can at least partially mitigate this harm, he considers that heritage input should be sought when designing this element. In planning terms, I would go further and suggest that the recording of the Gardener's Cottage and possibly its removal, and new (future) frontage landscaping and tree planting should begin early after the designation is confirmed, including specimen trees that could eventually be considered suitable mitigation for the removal of the Notable Magnolia, which could remain in place until nearer to the time of construction commencing. Heritage advice should be sought on the landscaping design and tree planting.

Finally Mr Windwood also supports that interpretation opportunities are undertaken throughout the Project and recommends that a suitable programme of works is achieved by condition. I consider that is appropriately a part of the HHMP (Condition 23(b)(x)).

Based on the advice provided by Mr Windwood, Ms Eaves and Mr Fynn, I consider that the adverse effects on historic heritage and archaeology can be adequately avoided, remedied or mitigated, subject to an amended set of conditions being imposed for A2B NoRs1; 2; 3; 4A and 4B.

The loss of the two Notable trees is in my opinion an inevitable consequence of the Project, with alternatives for their retention not viable or not capable of sustaining their long-term contribution as Notable trees. Based on the advice provided by Mr Fynn (Senior Heritage Arborist), and Mr Donaldson (Arborist) I consider that the adverse effects on the two Notable trees (at Cambria House 250 Puhinui Road and at corner of Vision Place and 307 Puhinui Road) could not be adequately mitigated unless the route were re-aligned to avoid them. Ms Eaves (Archaeology) also considers the trees have sufficient historic heritage and archaeological value to warrant their retention.

Once the site is designated the district plan-level tree protection rules would no longer apply, so if the matter needs to be managed it must be done so within the designation extent and conditions. The notable tree protection objective is relevant (D13.2. Objective (1) *Notable trees and notable groups of trees are retained and protected from inappropriate subdivision, use and development*). The Tree Management Plan would be expected to address any last options for retaining in trimmed form or transplanting the two notable trees.

The RPS and district plan-level heritage objectives and policies need to be considered on the NoRs. I consider the focus should be on mitigation of adverse effects, including creation of a setting for Cambria House at the future road frontage and front yard, landscaping and tree planting, recording of the Gardener's Cottage, protection of the memorial stone and plaque and ensuring Cambria House is not affected by the works, Accidental Discovery Protocols, re-use of heritage artefacts, interpretation and the heritage record. The amendments associated with this recommendation are set out in Appendix 5 to this report.

#### 4.4.8 Arboricultural effects

##### Application

##### **A2B ARBORICULTURAL EFFECTS APPLICANT'S ASSESSMENT**

Arboricultural effects are addressed in AEE section 9.4 and in the Assessment of Arboricultural Effects ('A**ArbE**') by Matthew Paul and Peter Weir of Te Tupu Ngātahi, and dated 9 December 2022. Notable tree effects are addressed in AEE section 9.4 and in the A**ArbE**, however they are only reported as arboricultural effects and not assessed as notable trees with historic heritage values. The A**ArbE** has an Appendix A Tree Schedule identifying each of the AUP:OP-protected trees affected by the Project.

The A**ArbE** assesses the actual and potential effects of the future construction and operation of the Project on existing trees protected under the District Plan provisions and recommends ways of managing these effects. Any trees that trigger Regional Plan requirements will be assessed and managed through a future consenting process.

Due to the changing nature of the environment, a further survey of protected trees under the District Plan is to be undertaken as part of the proposed Tree Management Plan (**TMP**) which is to be a condition on the proposed designations.

The amenity and ecological values associated with trees proposed for removal is assessed respectively in the AEE landscape assessment, section 9.5 and terrestrial ecology assessment, section 9.11.

##### **CONSTRUCTION EFFECTS**

The Project will result in the removal of trees protected by District Plan provisions on open space land and in the road reserve. Works may also occur in the root zone of protected trees. The table below summarises the number of protected trees and groups of vegetation requiring removal for each NoR.

<b>NoR</b>	<b>Number of protected trees/ requiring removal</b>	<b>Mass planted areas/groups of vegetation requiring removal (m<sup>2</sup>)</b>
A2B NoR 1	683	25 Groups (27,084 m <sup>2</sup> )
A2B NoR 2	404	28 Groups (5,960 m <sup>2</sup> )
A2B NoR 3	30 (Including 2 Notable Trees)	0
A2B NoRs 4A and 4B	0	0
<b>Total</b>	<b>1,117</b>	<b>53 (33,044 m<sup>2</sup>)</b>

**Table 4.4.8 1: Summary of protected trees and groups and vegetation requiring removal**

A full tree schedule is provided in Appendix A of the A**ArbE**.

### **A2B NOR 1**

A2B NoR 1 includes 683 single trees and 25 groups of trees that are located within the road reserve and open space land that are likely to be removed. In summary, this section is planted with Pōhutukawa and Washingtonia Palms.

The existing slip lanes adjoining Te Irirangi Drive are planted with Pōhutukawa.

### **A2B NOR 2**

A2B NoR 2 includes 404 single trees and 28 groups of trees that are growing within the road reserve and open space land that are likely to be removed. The Pōhutukawa, Washingtonia Palms and London Plane are located within the Te Irirangi Drive road reserve.

An English Oak which is scheduled as a Notable Tree in the AUP:OP is located within 9 Cavendish Drive. There are likely to be works within the root zone, Te Tupu Ngātahi considers these are likely to be relatively minor and will be limited in extent to the existing road reserve.

### **A2B NOR 3**

A2B NoR 3 includes 30 single trees that are growing within the road reserve and open space land that is likely to be removed. In summary, these include Pōhutukawa trees on both the northern and southern sides of Puhinui Road.

### **NOTABLE MAGNOLIA TREE**

A Notable Magnolia tree is located within the road reserve, adjoining Cambria House at 250 Puhinui Road. Te Tupu Ngātahi states that the Notable Magnolia tree is in good visual health, but its optimal structure has been heavily modified due to frequent pruning to clear the adjacent powerlines. This has resulted in an upright, largely one-sided canopy form with several pruning wounds and pockets of decay visible near the base of the tree. This ongoing pruning has likely to have reduced the tree's long term structural health and longevity.

### **NOTABLE FLOWERING GUM TREE**

A Notable Flowering Gum tree is located within the road reserve, adjacent to the intersection of Puhinui Road and Vision Place. As noted in the *Airport to Botany: Landscape Effects Assessment*, the Notable Flowering Gum forms a recognisable natural marker in the view looking west due to the lack of nearby street trees. In part, this defines a book end to this section of road as it approaches the SH20 / SH20B interchange.

Te Tupu Ngātahi states that the tree is currently in good visual health. However, some structural concerns were noted. The structural issues identified are a result of heavily weighted limbs and cambial cracking due to wind loading stresses. These have been managed to some degree by periodic limb reduction and canopy management.

Te Tupu Ngātahi states that, given that both these notable trees are located within the road reserve, these trees will need to be removed.



## **OPERATIONAL EFFECTS**

Once the Project has been constructed, Te Tupu Ngātahi anticipates no further effects on trees. Ongoing maintenance of street trees and trees retained adjacent to the road corridor is a standard operational requirement that does not generate adverse environmental effects.

## **MEASURES TO AVOID, REMEDY OR MITIGATE POTENTIAL ADVERSE ARBORICULTURAL EFFECTS**

To address the potential effects identified, a Tree Management Plan (**TMP**) is to be prepared prior to construction to identify the existing trees protected under the District Plan, confirm the construction methods and impacts on each tree and detail methods for all work within the root zone of trees that will be retained. The TMP will include:

- Confirmation that protected trees identified in the Assessment of Arboricultural Effects still exist;
- Advice on how the design and location of works can avoid, remedy or mitigate effects on the existing trees;
- Recommended planting to replace protected trees that require removal;
- Establishing tree protection zones and specifying tree protection measures such as protective fencing, ground protection and physical protection of roots, trunks and branches;
- Detailing methods for all work within the root zone of trees that are to be retained in line with appropriate arboricultural standards; and
- Where good quality trees in the road reserve are identified for removal, consideration of tree transplanting will be included in the TMP. An assessment of the quality of the trees and the feasibility of transplantation is to form part of the plan.

The TMP is limited to trees identified in the AArbE that are protected under the District Plan. Trees protected under Regional Plan provisions will be addressed as part of a future consenting process.

Te Tupu Ngātahi states that the effects of tree loss can be mitigated by comprehensive planting within the new berms, and areas identified in the Urban Design Evaluation i.e. area to the west of SH20, next to Manukau Memorial Gardens. Replacement planting will be decided through a planting plan for the Project under the proposed Urban Landscape and Design Management Plan (**ULDMP**) condition. The ULDMP is to also include methodologies to establish new trees within the road reserve, including creation of quality below-ground environments, correct planting methods and appropriate maintenance. Replanting of the stream embankment and road reserve is to mitigate potential effects on amenity, ecology, stormwater and land stability.

## **Submissions and local board views**

A total of 58 submissions in relation to the Project relevant to arboricultural matters have been received. These include concerns regarding the loss of urban ngāhere, the loss of treescape along the sides of Te Irirangi Drive, the loss of the Norfolk Pines from the northern Lambie Drive median, and the loss of two Scheduled Notable trees.

Submissions regarding trees have been summarised as:

**NoR1:** 34 submissions concerning loss of trees, opposition to the inclusion of walking and cycling facilities along both sides of the corridor along Te Irirangi Drive which will replace the existing trees, reduction in trees and the urban ngāhere canopy coverage across this area, increased flooding risk and climate impacts, an increase in the urban heat island effect, decreased visual amenity, loss of shade, decreased health and wellbeing to the public and decreased air quality.

**NoR2:** 16 submissions concerning loss of trees along Te Irirangi Drive, flooding and climate change effects from removal of trees, loss of Norfolk Pine trees down the centre of the northern end of Lambie Drive, including their ecological purposes and attractive visual backdrop, loss of trees and grassed median will mean less soakage for rainwater and a significant ecological loss.

**NoR3:** 5 submissions concerning loss of trees, flooding and climate change effects from removal of trees and increase in hard surfaces.

Heritage New Zealand Pouhere Taonga NoR3-31 have specifically submitted that “Cambria Park Homestead and its garden setting extent, Gardener’s Cottage, and the associated wider heritage landscape, including Notable Trees have not been identified or considered. Other garden elements, including surviving trees and other plantings, have likewise not been adequately identified or assessed.”

**NoR4A:** 3 submissions concerning loss of trees, flooding, and climate change effects from removal of trees and increase in hard surfaces.

**Howick Local Board** support the project in principle as a key transport infrastructure project providing links through to the Airport, acknowledge the feedback from the community, and note with concern the impact on loss of trees along the corridor including the slip lanes. They request that trees lost are replaced like for like, and wherever possible retain trees and / or relocate them to another site in close proximity and explore other options including sale or distribution.

### **ARBORIST’S RECOMMENDATION**

Mr Donaldson agrees with and supports the submissions received regarding the adverse environmental effects of the proposed protected tree removals and recommends that options be sought to reduce the number of trees that need to be removed.

He also recommends that the designation conditions include a requirement that the replanting to be undertaken is sufficient to replace the lost eco-system services that the removed trees provide at the time of tree removal. This can be achieved through the ULDMP conditions, and it is Mr Donaldson’s recommendation that an addition be made to the ULDMP replanting condition that specifies what details the ULDMP(s) must include, with the specific requirement for:

- *Restoration planting which remedies the loss of ecosystem services provided by vegetation identified for removal, including the replacement of planting that fails to establish.*

The application and AEE do not acknowledge any effect from the loss of trees which are not protected, as their removal is a permitted activity. That includes the trees in the street of height less than 4m and girth less than 400mm. The Project is to include a substantial number of new tree plantings, a multiple of the number of trees removed, although smaller in scale at time of planting. The submissions on trees did not discuss or describe the replanting of trees. The species of new trees will be decided in the ULDMP, in consultation with Mana whenua and the council, and it is not yet clear what scale of trees and future tree cover will be able to be achieved.

### **Specialist Assessment**

Arboricultural effects have been assessed by Mr Gavin Donaldson, Senior Arborist, Auckland Council, in a memo dated 26 April 2023, which is provided in Appendix 1 to this report. Heritage arboricultural effects on scheduled Notable Trees have been assessed by Mr West Fynn, Senior Heritage Arborist, Auckland Council, in a memo dated 21 April 2023, which is provided in Appendix 1 to this report.

The project will require the removal of 1,146 individual trees and 28,955.2m<sup>2</sup> of mass planted areas and groups of vegetation, including all the mature Washingtonia Palm trees in the centre of Te Irirangi Drive and numerous Pōhutukawa in the existing slip lanes, mature London Plane trees and Pōhutukawa trees on both the northern and southern sides of Puhinui Road, plus mature trees in the central landscape strip from Ronwood Avenue to Lambie Drive in Manukau centre.

Mr Donaldson supports the assessment, conclusions and recommendations provided by the Council's Senior Heritage Arborist, West Fynn, regarding the removal of Scheduled Notable trees, that the two trees should remain and the road be designed and aligned to protect them.

Given the extent of mature trees and vegetation within public space proposed for removal across the A2B NoRs, Mr Donaldson considers this Project is likely to have a substantial visual impact upon local amenity, and a significant loss of the numerous attributes and eco-system services that the trees currently provide. While the Applicant has offered to provide 'mitigation' for the proposed tree removals, by definition, mitigation acknowledges that there is a lasting negative effect, and Mr Donaldson prefers that an approach which remedies the impact of tree removals is adopted, where the remedial planting accounts for lost future environmental benefits that trees provide, including the eco-system services of soil / erosion protection, storm-water reduction, wildlife habitat, and sequestered carbon.

### **ECOSYSTEM SERVICES**

Mr Donaldson notes that the AUP:OP specifically lists the provision of ecosystem services as a matter of importance for trees in roads and open spaces as shown in the following excerpts from chapters E15, E16 and E17 of the AUP: *Chapter E15 - Vegetation management and biodiversity*

*E15.2. Objectives: (1) Ecosystem services and indigenous biological diversity values, particularly in sensitive environments, and areas of contiguous indigenous vegetation cover, are maintained or enhanced while providing for appropriate subdivision, use and development.*

*E15.3. Policies: (2) Manage the effects of activities to avoid significant adverse effects on biodiversity values as far as practicable, minimise significant adverse effects where avoidance is not practicable, and avoid, remedy or mitigate any other adverse effects on indigenous biological diversity and ecosystem services, including soil conservation, water quality and quantity management, and the mitigation of natural hazards.*

#### *Chapter E16. Trees in open space zones*

*E16.1. Background: Environmentally, trees provide important ecological values in terms of storing carbon and providing habitat and food for wildlife, improving air quality and providing ecosystem services.*

*E16.8.2. Assessment criteria: The specific values of the trees including any ecological values with respect to water and soil conservation, ecosystem services, stability, ecology, habitat for birds and amelioration of natural hazards.*

#### *E17. Trees in roads*

*E17.1. Background: Trees in roads make streets more attractive and contribute to pedestrian amenity and public health. Environmentally, trees provide important ecological values in terms of storing carbon, providing habitat and food for wildlife, improving air quality and providing ecological and amenity values.*

*E17.8.2. Assessment criteria: The specific values of the trees including any ecological values with respect to water and soil conservation, ecosystem services, stability, ecology, habitat for birds and amelioration of natural hazards.*

Mr Donaldson considers that there is a requirement to avoid or remedy, rather than mitigate this loss as set out in the RMA and AUP, including Section 17(1) of the RMA. Furthermore, in consideration of the ecosystem services provided by the trees proposed to be removed for these designations, Mr Donaldson considers their loss will also require appropriate remedial planting to achieve the stated objective of central government to be 'carbon neutral' by 2050 and also to align with the sustainability goals of the Auckland Council's 'Low Carbon Strategic Action Plan'.

While Mr Donaldson defers any ecological assessment of the proposed vegetation removals to the Council's ecologists, he considers the value of ecosystem services provided by trees can be determined using the i-Tree Development Team 2020 forecasting tool developed by the International Society of Arboriculture, which calculates the lost future benefits arising from the proposed tree removals, and the remedial planting that will be needed to replace these lost benefits, maintain carbon neutrality, and ensure that the actual effects of tree removal are addressed in a sustainable fashion.

The Applicant was requested under s.92 to “*please provide an assessment of the tree carbon sequestration that will need to be provided in mitigation of the proposed tree removals, within a more detailed calculation of the ecosystem services that will need to be replaced.*” The Applicant responded that “*given the timeframes for construction (approx.15 years) and the current route protection stage of the project, it is not considered appropriate to apply a tree carbon sequestration calculation at this stage. The Project Team arborist notes that this an evolving area of tree mitigation and any calculations and methodology would likely be superseded by the time construction works for the Project have commenced. As such a Tree Management Plan is proposed to address replacement planting for the Project.*”

Mr Donaldson does not accept this response. As this is an NoR application, the designation may not be given effect to for some time (potentially decades) in the future and the trees will remain on site in the interim. Accordingly, the stature and ecosystem services provided by these trees will also substantially increase over time and the subsequent loss at the time of their removal will also be greater.

It is proposed in the AEE that a Tree Management Plan and an Urban Landscape Design Management Plan (ULDMP) will be provided at the OPW stage which will include replacement planting and tree protection measures so that effects on trees can be ‘mitigated’. In Mr Donaldson’s assessment this is inadequate. The i-tree calculation of eco-system services has now been updated to include NZ species and conditions. Mr Donaldson considers that it is essential that the designation includes a requirement for the provision of sufficient replanting to adequately remedy the loss at the time of tree removal, rather than having a condition that merely requires them to ‘mitigate’ the removals through the provision of a ULDMP landscape plan at a future date.

### **Planning assessment**

I understand the key tree matters to be:

- Retention of Notable trees;
- Loss of urban ngāhere (forest) – and climate change effects such as flooding and heat island;
- Ecosystem services replacement including carbon sequestration effects through replanting, calculated to correspond to the vegetation removed at the time of the removals;
- Loss of treescape along the sides of Te Irirangi Drive;
- Look to reduce the number of existing trees to be removed;
- Submitter concern at loss of Norfolk Pines from Lambie Drive median
- Submitter concern at loss of trees along AUT South frontage to Te Irirangi Drive.

On retention of the two Notable trees, Mr Fynn (Senior Heritage Arborist), Ms Eaves (Archaeologist) and Mr Donaldson (Senior Arborist) all recommend that both trees be retained by redesign and realignment of the Project. The Applicant's arborist considers both trees have structural weaknesses, the Magnolia has had branches removed for safety clearances, and retention of the trees would involve such a degree of further pruning that the tree shapes would not be acceptable. The Applicant does not accept there are viable alternative or realigned routes that would allow the retention of the trees.

On planning grounds, I consider the two trees should be removed for the Project, and that the mitigation should be planting of good-sized specimen trees that would eventually be capable of Notable status. The Magnolia tree should remain in place until its site is needed, and its mitigation could possibly be early heritage-assisted landscaping and tree planting of the future Cambria House frontage.

The application and AEE do not acknowledge any effect from the loss of trees which are not protected, as their removal is a permitted activity. That includes the trees in the street of height less than 4m and girth less than 400mm. The Project is to include a substantial number of new tree plantings, a multiple of the number of trees removed, although smaller in scale at time of planting.

The submissions on trees did not discuss or describe the replanting of trees. The species of new trees will be decided in the ULDMP, in consultation with Mana whenua and the council, and it is not yet clear what scale of trees and future tree cover will be able to be achieved. The AArbE recommends replacement planting at a minimum of 2:1 and the replacement of mass planted indigenous planting for NoR1 and NoR2. 683 trees are removed in NoR1 and 404 are removed in NoR2. As these numbers do not include the removal of trees which are not protected by the AUP:OP 2:1 replacement may not be sufficient. In NoR3 along Puhinui Road 30 trees are to be removed, including the two scheduled Notable trees. The replanting of Puhinui Road will in my opinion need substantially more trees than a 2:1 replacement. NoR4A and 4B acknowledge no protected trees are proposed to be removed from SH20 / 20B interchange to Orrs Road, however that stretch includes the Puhinui Historic Gateway and a 10m landscape yard frontage, which will involve substantial planting. NoR4A & 4B also include two affected wetlands and a stream tributary, which will receive ecological restoration riparian planting.

A proposed Condition 9 outlines the requirement for the preparation of an Urban and Landscape Design Management Plan (ULDMP) prior to the start of construction to enable the integration of the Project's permanent works into the surrounding landscape and urban context. The ULDMP is to include planting design details including trees to be retained, and proposed street trees, shrubs and ground covers. Mr Pryor considers that the replacement planting proposed in the AArbE will be appropriate mitigation for the tree removal and should be adhered to, with large grade specimen trees to be used. Mr Donaldson considers the replacement planting needs to be supported by an ecosystem services replacement calculation, including carbon sequestration. In my opinion Mr Donaldson's recommended calculation should be the backstop to ensuring sufficient ecosystem services replacement, and in 15 years or when the Project construction commences that is likely to result in a tree replacement ratio greater than 2:1.

The urban ngāhere tree cover should be able to be increased overall, including along the sides of Te Irirangi Drive, if a multiple of the trees removed is planted, even at early stages of growth. There will be a larger area of hard surface, with the loss of grassed medians and the addition of walkways and cycleways, and it is important that is managed by more effective vegetation cover. There will be replanting of trees along the sides of Te Irirangi Drive, along with the reforming of the parallel slip lanes. Although the Norfolk Pines will be removed from the Lambie Drive median, to accommodate the BRT lanes, further street tree planting will be undertaken along the sides of Lambie Drive. Similarly, with the AUT South Campus street frontage, trees lost will be replaced.

Mr Donaldson proposes a calculated ecosystem services replacement (including carbon sequestration in trees) to assist in quantifying the quantity and scale of new trees and vegetation, and I consider it would be a useful mechanism in the ULDM to backstop a landscape design treescape. In respect of ecosystem services replacement and carbon sequestration, I agree that the Project should make specific reference to environmental benefits of ecosystem services replacement and carbon being stored or sequestered in trees, and the need to avoid, remedy or mitigate such effects through replacement planting for the Project. To this effect, I support the following amendment to the ULDM condition relating to replacement planting:

*Restoration planting which remedies the loss of ecosystem services provided by vegetation identified for removal, including the replacement of planting that fails to establish.*

Management of existing trees to be retained is by way of Tree Management Plan (TMP), which is required to demonstrate how the design and location of the Project works has avoided, remedied or mitigated any effects on trees listed in the Schedules to the conditions. I consider that this will provide an appropriate framework requiring effects to be remediated or avoided where possible.

Based on the advice provided by Mr Donaldson, as reporting planner I consider that the adverse effects on arboriculture can be adequately avoided, remedied or mitigated, subject to an amended set of conditions being imposed for NoRs 1 – 4A, apart from the effects on two notable trees. The amendments associated with this recommendation are set out in Appendix 5 to this report.

#### **4.4.9 Open space and community facilities effects**

##### **Application**

##### **A2B OPEN SPACE EFFECTS APPLICANT'S ASSESSMENT**

Open space and community facility specific effects assessment was requested in the first section 92 Further Information Request, but Council was informed that would be subject to further consultation with Parks and Community Facilities and had not been fully resolved.

Effects on public open spaces are raised at various points of the AEE, particularly in relation to engagement with Local Boards and the Auckland Council Community Facilities – Parks, engagement on stormwater devices in Rongomai Park and Hayman Park with Community Facilities – Parks and Eke Panuku, and the assessment of effects against the Open Space objectives and policies of the AUP:OP (AEE Appendix B Assessment against relevant statutory planning documents p.12) as follows:

<b>Theme: Open Space</b>		
<b>Applicable NoR(s)</b>	<b>Relevant objectives and policies</b>	<b>Summary of objectives and policies and assessment</b>
All	<b>AUP:OP [DP]</b> E16.2(1), E16.2(2), E16.3(2), E16.3(3)  H7.2(2), H7.4.2(2), H7.5(1), H7.6.2(2), H7.6.3(4), H7.8.2(1),  H7.8.3(2)	<b>Summary of Objectives and Policies</b> <p>The general objectives and policies of open space zones in the AUP:OP seek to enable infrastructure while avoiding, remedying or mitigating adverse effects on residents, communities and the environment.</p> <p>Objectives and policies in Chapter E16 of the AUP:OP seek to protect the cultural, amenity, landscape and ecological values of trees in open space zones and increase the quality and extent of tree cover in open space zones.</p>
		<p style="text-align: center;"><b>Assessment</b></p> <p>NoRs 1 – 3 include potential works in open space zones. This includes informal recreation zones, sports and recreation zones, conservation zones and community zones.</p> <p>Potential construction effects on amenity values of open space zones can be managed through engagement with residents, the community and stakeholders through an SCEMP, a CNVMP, a CTMP and CEMP to minimise potential effects. A ULDMP is recommended as a condition of the proposed designations which will require all areas be reinstated at the completion of the construction period.</p> <p>The Project will provide high quality walking and cycling facilities which will improve connectivity to open space areas, reserves and recreation facilities by active modes.</p> <p>Within the open space zones, the effects of tree loss can be mitigated by comprehensive replanting. Replacement planting will be determined through a planting plan for the Project under the ULDMP which is a condition on the proposed designation.</p> <p>Where possible, existing stormwater ponds are proposed to be upgraded to increase the capacity of the ponds. Indigenous vegetation will be re-instated with enhancement opportunities identified through the UDLMP where practicable.</p> <p>in addition, a TMP will be developed prior to construction to identify the existing trees protected under the District Plan, confirm the construction methods and impacts on each tree and detail methods for all work within the rootzone of trees that are to be retained.</p>



		<p>Te Tupu Ngātahi Conclusion</p> <p>The Project is consistent with the objectives and policies by providing for infrastructure while avoiding, remedying or mitigating adverse effects on residents, communities, trees and the environment.</p>
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**Table 4.4.9 1: AEE Appendix B Assessment against relevant statutory planning documents p.12**

**Submissions**

Submissions have been received in relation to the following matters:

Manukau Sports Bowl - Eke Panuku NoR2-72 – (Extent) The NoR2 proposes to designate approximately 8,145 m<sup>2</sup> of land within the Manukau Sports Bowl site for stormwater management purposes. The proposed stormwater management area is located within the south-eastern corner of the site on land that was identified, through the masterplan process, for use as a play area, shared path and potential residential development in the future. Eke Panuku would be unable to implement the Master Plan and is particularly concerned about the adverse effects of the proposed stormwater management area, which include: loss of open space and associated recreation opportunities such as informal play, loop walks or community spaces; the location creates a direct spatial conflict with planned community facilities including the ‘children’s play hub’; reduced connectivity and access to the proposed wider walking and cycling network and to the surrounding neighbourhoods; and limit future residential development that would provide more housing in this location. The Assessment of Flood Effects does not link the proposed stormwater management area to stormwater requirements or include any consideration of alternative sites or methods. Eke Panuku considers alternative options are available that would provide for appropriate management of stormwater effects while minimising impacts on the Manukau Sports Bowl site.

Hayman Park - Eke Panuku NoR2-72 Davies Avenue and HaymanPark: Adverse effects on access to Hayman Park during construction and operation of NoR2, including the further severance of the Park from the surrounding urban environment and loss of appropriately located mobility parking spaces; Adverse effects on the urban interface and streetscape design between Hayman Park and Davies Avenue, including as a result of the removal of existing vegetation, street furniture, car parks and footpath; Adverse visual and amenity effects, including as a result of the proposed BRT station, encroachment on Hayman Park and a hard western alignment of the BRT which reduces permeability and legibility; Adverse effects on connectivity between the Park and surrounding streets including to Amersham Way and Putney Way.

Consultation and engagement: Eke Panuku has some concerns about the lack of detail and information provided in support of the NoR2. Eke Panuku does not support aspects of the NoR2 (as notified) because it would result in adverse effects that compromise its ability to deliver regeneration outcomes consistent with the HLPP, Framework Plan and the Manukau Sports Bowl Master Plan. The proposed BRT route will impact a number of future streetscape projects within the Transform Manukau area including walking and cycling upgrades projects proposed to be delivered by Eke Panuku along Cavendish Drive, Sharkey Street, Amersham Way, Davies Avenue and Ronwood Avenue. It will also interact with several sites that Eke Panuku has identified for public realm upgrades (eg Manukau Sports Bowl site and Hayman Park) or future development (eg future development sites along Davies Avenue).

Traffic: Eke Panuku is concerned that there may not be appropriate access to public open space, including Hayman Park, during construction. It seeks that this be addressed through the Construction Traffic Management Plan. There is a need to provide for appropriate management of operational effects on access to Hayman Park through additional conditions. In particular, Eke Panuku requests the inclusion of conditions that provide for safe access, via crossings, from the surrounding city centre to Hayman Park including at Amersham Way.

Parking: Eke Panuku is also concerned about the loss of mobility parking spaces on Davies Avenue. It seeks amendments to the conditions and associated plans to ensure appropriate mobility parking spaces are provided in proximity to the Hayman Park playground.)

### **Specialist assessment**

Effects on open spaces have been assessed by Mr James Hendra, Consultant Parks Planner, Hendra Planning Limited. Mr Hendra's assessment focusses on the key public open spaces that are potentially affected by the Project.

The proposed designation footprint will affect reserves in the open space network which provide for both sports and passive and active recreation activities for the local and wider community. These include:

- Kellaway Drive Reserve
- Sancta Maria Ponds
- Rongomai Park
- Medvale Avenue Reserve
- Orlando Reserve
- Manukau Sports Bowl
- Hayman Park
- Puhinui Domain.

## **ROUTE PROTECTION PHASE: PRE-CONSTRUCTION**

The route protection phase of the project occurs from notification of the NoR until the design and construction phase. This phase may be up to 15 years in duration.

The effect of the designations is that council cannot develop the affected areas of its parks or facilities without the prior written consent of the Requiring Authority. This impacts upon the council's ability to meet the recreational needs of the community's experiencing growth, increased density consequently an increasing need for places to recreate.

Specifically, s.176 requires permission from the Requiring Authority to do anything in relation to the land that is subject to the designation that would prevent or hinder a public work or project or work to which the designation relates, including—

- (i) undertaking any use of the land; and
- (ii) subdividing the land; and
- (iii) changing the character, intensity, or scale of the use of the land.

The Requiring Authority has offered amended conditions that will provide for Auckland Council to undertake limited works within a designation footprint. The condition originally applied to network utilities and is commonly offered by AT as part of a NoR. Amended condition copied as follows: General Conditions NoRs 1, 2, 3 and 4a:

### *"6. Network Utility Operators (Section 176 Approval)*

*(a) Prior to the start of Construction Works, Network Utility Operators (including Auckland International Airport Limited) and Auckland Council with existing infrastructure and/or park facilities located within the designation will not require written consent under section 176 of the RMA for the following activities:*

- (i) operation, maintenance and urgent repair works;*
- (ii) minor renewal works to existing network utilities and/or park facilities necessary for the on-going provision or security of supply of network utility and/or park facility operations;*
- (iii) minor works such as new service connections; and*
- (iv) the upgrade and replacement of existing network utilities and/or park facilities in the same location with the same or similar effects as the existing utility and/or park facility.*

*(b) To the extent that a record of written approval is required for the activities listed above, this condition shall constitute written approval."*

The condition is supported by Mr Hendra insofar as it offers a level of development within the designated land area. The scope of work permitted under the condition is subject to interpretation, particularly with respect to clause 6(a)(iv), where parks and park facilities may or may not be considered network utilities, and where part of a park such as a grassed area may or may not be considered a 'park facility'. The preference of Parks Planning is that the scope is not limited, and if so, that the term 'parks' is applied as an all-encompassing term, replacing the term 'park facilities'.

Mr Hendra is concerned that the scope of the s.176 pre-approval condition may be applied in a manner which is unnecessarily restrictive, and this outcome is the intention. If so, Auckland Council may not be able to appropriately provide for the needs of its communities.

Over the next 20 years, the population of the Howick and Ōtara-Papatoetoe Local Board areas is expected to increase significantly, with this growth expected to be higher due to the proposed works in Manukau Central by Eke Panuku, and intensification of employment in East Tamaki. The combination of population growth and the lack of personal gardens/ backyards will place significant pressure, on the existing open space.

Mr Hendra considers that recreation trends show that people are becoming time poor and prefer to exercise/ participate in physical activities at their own convenience. People will be looking for connected greenways as the preferred locations to walk, run/jog and cycle and as an escape from the built environment.

The Local Boards have already highlighted how important the open space reserves vested as stormwater are to their greenway network. The reliance of these stormwater reserves for recreation will only increase over time.

The proposed designations over the open space reserves affected by the A2B Project, limit Council's ability to enhance the existing open space network to meet the growing demand of future populations. The park most affected by pre-construction or route protection effects is the Manukau Sports Bowl where significant redevelopment and upgrades are planned. A masterplan, prepared with extensive consultation with the community and in partnership with Eke Panuku was formally adopted by the Ōtara-Papatoetoe Local Board in February 2023. The Masterplan would not be able to be delivered as intended because the designated area extends within the southern boundary and south-eastern corner adjacent Sandrine Avenue. Significantly, the designation extends into an area of land which is identified as an opportunity for commercial development anticipated to fund the overall development.

In addition to the unique and location specific impact upon the Manukau Sports Bowl, the general impact on an open space of having one part being unavailable for development or change extends beyond the footprint of the designated area. This is because, in the context of a park, design and functional aspects are interrelated and interconnected. A park is designed and developed in the whole, considering multiple aspects including vehicle and pedestrian access and circulation, toilets, clubrooms, furniture and play, sports fields and training areas, trees, landscaping, passive recreation, stormwater management and lighting. Therefore, the designation will affect council's ability to improve or scale-up provision and assets within the designated and interdependent areas of open spaces.

The supporting Social Impact Assessment acknowledges the "...*extensive redevelopment plans for the Manukau Sports Bowl...*" and acknowledges '*Fear and aspirations*' as moderate adverse effects upon directly affected landowners. The directly affected landowner in this case is Auckland Council. The affected community is described to experience:

*"Potential negative impacts associated with fear of disruption to local community character, and perceptions about potential long term changes to the fabric of the community, particularly in combination with other potential construction activity such as the Eke Panuku redevelopment of the Manukau Sports Bowl ...".*[A2B Social Impact Assessment p119]

Mr Hendra would expand upon the assessment to also acknowledge that local communities will feel fear, anxiety, distrust and disappointment that the Manukau Sports Bowl cannot be developed in accordance with the adopted Masterplan which was developed with extensive consultation and expectation that their input and the outcomes would be deliverable and not adversely impacted by the development plans of another part of the council family.

The AEE is silent with respect to acknowledging the route protection effects on the landowner and communities served by the Manukau Sports Bowl. In Mr Hendra's opinion, these effects should be acknowledged and mitigated as the designation affects critical components of community infrastructure planned for significant upgrades. The impact that route protection will have upon the council's ability to upscale and develop parks more generally, and therefore upon the recreation needs of the immediate and wider community, is not acknowledged. In Mr Hendra's view this is a significant omission. It is recognised that at the design and construction phases the Requiring Authority will acquire the necessary land and reach an agreement to replace or purchase existing facilities and land. However, that does not address the immediate adverse effects which will occur until the designation is given effect to.

Mr Hendra considers the most obvious way for the route protection phase effects to be addressed is for conditions to be offered which would allow for the development and upgrading of parks within the designation footprint. However, the Requiring Authority has an interest to not provide consent for improvements and development of parks land as this exposes risk for future costs when compensated. Nevertheless, this outcome would not be detrimental to the overall delivery of the project. It would simply require that the effects on the affected land would be addressed based upon the actual environment at that time instead of requiring that affected land is held in a static and undevelopable state until that time. Alternatively, or in parallel, land acquisition and agreements may be brought forward to provide adequate and suitable compensation to enable council to develop the overall open spaces as necessary.

### **CONSTRUCTION PHASE**

To mitigate construction effects on open spaces and the communities which rely on these, Mr Hendra considers the project must provide for no loss of provision or service at open spaces. The most significant adverse effects will be at parks which have an active sport function and where functional parts of are affected, for example at Hayman Reserve, Manukau Sports Bowl and Rongomai Park. The effects will extend to limiting people's ability to recreate, both passively and actively, and will be notable at the local and wider scale for sporting codes which use the parks for competition.

This means that prior to construction there must be solutions put in place to ensure that facilities are able to be accessed when needed, and that when facilities are rendered unavailable, that replacement facilities are provided either at the site or a nearby location. The duration of construction affecting open spaces is unknown but is expected to at least be several months if not longer. There will be direct adverse effects on people's ability to access destinations, either restricted or with no access for periods of time. Council's ability to maintain and service facilities will also be restricted. Even if access is partly provided to unaffected parts of the parks for some periods of time, the access may not be adequate for service and maintenance.

An assessment of construction effects is not provided in the AEE with respect to affected open spaces despite it being obvious that construction will negatively affect access and functionality of open spaces and community facilities. The duration of disruption is not outlined for specific locations, however, is as being between 3 and 6 years over different stages.

The social impact section of the AEE partly acknowledges construction effects on open spaces:

*“Parking and access to some businesses or facilities that are important to the community will be impacted during construction”.*[AEE p85]

Construction will negatively affect access and available function of open spaces and community facilities, noting that these will be as existing at the time of construction and cannot be accurately predicted now. Therefore, conditions need to be in place to assess the function and facilities in place at the time of construction and ensure that access is provided to these or alternative.

To address the potential construction effects identified, a Construction Traffic Management Plan (CTMP) will be prepared prior to the start of construction. The objective of the CTMP is to avoid, remedy or mitigate, as far as practicable, adverse construction traffic effects. With respect to providing access to open spaces, the scope of a CTMP is essentially limited to methods to maintain vehicle access to property and/or private roads where practicable, or to provide alternative access arrangements when it will not be. The intent of the CTMP, or any other proposed condition, does not extend to addressing loss of service during the construction period. The condition caveat “as far as practicable” provides for the outcome that access might not be provided. Therefore, the condition and CTMP cannot ensure that access to open spaces will be provided for during construction.

The AEE does not describe how the critical functional areas of open spaces will be impacted or how the management plans would effectively manage the effects. No assurance is made that access can be provided to enable the remaining unaffected active recreation functions to remain operational. Even if this was possible, no solution or mitigation is proposed to manage the effects of directly impacted areas of the parks that will be inaccessible. As such, potential construction effects on open space as assessed to be very significant as access will likely be restricted and provision of service is not assured.

Given these impacts on parking and provision and the loss of access to buildings, facilities and practice and playing fields, the only apparent method to mitigate these effects is conditions which required provision of suitable facilities at alternative locations to sustain a minimum level of service. This is not a simple undertaking as generally existing facilities operate at capacity. To effectively mitigate the construction effects on active recreation, prior to construction, an assessment would be required to understand the function of the parks and level of service, then, a solution provided for adequate provision elsewhere as necessary. This would need to be agreed and delivered prior to the commencement of construction and could be either temporary facilities or adequate upgrading of existing council facilities.

The need to maintain access to open spaces was queried during the s92 process. The Requiring Authority responded:

*“Access to parks will be maintained through the construction and operation of the Project. These are specific matters addressed in the proposed Stakeholder Communication and Engagement Management Plan and the Construction Traffic Management Plan.”* [s92 response]

Mr Hendra supports the Requiring Authority's commitment to ensure access is maintained during construction. However, as noted, the SCEMP and CTMP do not require that access is maintained. Therefore, amendment to the CTMP condition is required to give effect to the statement.

Mitigation for the permanent loss of open space land is not addressed in the AEE. Parks Planning posed s92 questions on this matter and the Requiring Authority responded:

In post-notification correspondence the Requiring Authority proposed an amendment to the SCEMP condition to include a requirement to consult "...with stakeholders, community groups and organisations 18 months prior to the Start of Construction for a Stage of Work". Mr Hendra supports this amendment insofar as it will require consultation with affected community groups associated with open spaces. However, the fundamental purpose of the plan is limited and does not require any outcome except for communication.

*"The objective of the SCEMP is to identify how the public and stakeholders (including directly affected and adjacent owners and occupiers of land) will be engaged with prior to and throughout the Construction Works."* [s 92 response]

### **POST-CONSTRUCTION: PROPERTY MATTERS**

Mitigation for the permanent loss of open space land is not addressed in the AEE. Parks Planning posed s92 questions on this matter and the Requiring Authority responded:

*"Engagement with Auckland Council Community Facilities has been ongoing throughout the development of the AEE and will continue post lodgement. It is anticipated that the outcomes of these discussions will be subject to some form of formal agreement between the various parts of Auckland Council involved. We intend to update the Auckland Council processing team on these discussions in advance of the hearing and preferably in advance of the release of the initial s42A report. Notwithstanding the above, one outcome of discussions to date is an agreed revision to the proposed Network Utility Operators condition to include specific reference to Auckland Council and park facilities ..."* [s92 response]

If an agreement which addresses potential loss of function during construction and permanent replacement facilities remains unfinalised, then these matters must be addressed via conditions which ensure the same outcome.

## **CONDITIONS**

### **NETWORK UTILITY OPERATORS (SECTION 176 APPROVAL):**

The effect of the designation is that council cannot upgrade or develop land within the designated area of land without the prior written consent of the requiring authority. As assessments with respect to specific open spaces demonstrate, the council needs to be able to improve and upscale service provision within parks to provide for needs of communities, especially with respect to population growth and changes to the needs of the communities. Uncertainty about the degree to which any permission may be withheld or granted with respect to works within the designation is of significant concern with respect to facilities which must be upgraded and developed over-time to provide for the needs of communities for both active and passive recreation. To address this matter Mr Hendra recommends that the requiring authority provide a condition which provides a blanket consent to allow for the designated areas to be upgraded and developed as the council see fit.

Mr Hendra recommends that the scope of “*upgrade and replacement*” and “*in the same location with the same or similar effects as the existing park facility*” be more clearly described to provide more certainty in application.

### **PRE-CONSTRUCTION**

#### **MANAGEMENT PLANS**

*“(iii) Include sufficient detail relating to the management of effects associated with the relevant activities and / or Stage of Work to which it relates.”*

Mr Hendra considers that the management plans should include assessment of open space function and facilities at the time of design/construction and therefore measure the provision to be maintained, such as traffic, access and parking to recreation users.

#### **URBAN AND LANDSCAPE DESIGN MANAGEMENT PLAN (ULDMP)**

The ULDMP shall be prepared prior to construction. There is no process for council to participate in the development of the plan or provide feedback as a significantly affected stakeholder and landowner.

The condition stipulates:

*“Mana Whenua shall be invited to participate in the development of the ULDMP(s) to provide input into relevant cultural landscape and design matters including how desired outcomes for management of potential effects on cultural sites, landscapes and values identified and discussed in accordance with Condition 8(c) may be reflected in the ULDMP.”*

In Mr Hendra’s opinion, council Parks should also have a participatory role in deciding how the project integrates with the affected parks and sufficient time should be provided for this to occur. Proposed condition 21 similarly stipulates that the HHAMP is required to be prepared in consultation with council, HNZPT and Mana Whenua, prior to the start of construction work.



## **STAKEHOLDER COMMUNICATION AND ENGAGEMENT MANAGEMENT PLAN (SCEMP)**

The purpose of the SCEMP is to identify how stakeholders will be communicated with. The condition does not contain any mechanism to ask stakeholders how they want to be communicated with. Due to the scale of impact upon parks and recreation and the council's wider responsibility to represent the interests of community and provide recreation outcomes, in Mr Hendra's view, council should have a mechanism to review and provide feedback to the SCEMP within that scope and be provided adequate time to do so. As it is necessary to separate Council's regulator and stakeholder (Parks) roles, I as reporting planner consider that Parks should be a stakeholder in preparing the SCEMP(s).

The composition of activities and groups who use the affected parks in the future at the time of design and construction cannot be predicted now. Council Parks is best placed to advise the Requiring Authority on these matters to ensure that the SCEMP is effective. This information should also inform the CTMP as council (maintenance) and different users need access to parks at different times.

*“(iv) a list of stakeholders, ~~organisations~~ (such as community groups, organisations facilities) and businesses who will be engaged with;”*

## **CONSTRUCTION TRAFFIC MANAGEMENT PLAN**

The objective of the CTMP is to avoid, remedy or mitigate, as far as practicable, adverse construction traffic effects. A CTMP is required to be prepared prior to the Start of Construction for a Stage of Work. The CTMP is required to estimate numbers, frequencies, routes and timing of traffic movements, including any specific non-working or non-movement hours to manage vehicular and pedestrian traffic near schools or to manage traffic congestion (emphasis added). Park users and servicing generates traffic, access and parking demand comparable to schools, however at irregular intervals and frequencies. For example, different codes and competitions will need access to facilities during late afternoon and evenings. One off events or competitions may also occur. The CTMP does not contain any requirement to consult with the council or affected communities in the development of the CTMP. It is unclear how the Requiring Authority would be able to accurately determine traffic activity associated with a park without consultation with the council.

In Mr Hendra's view council should have a mechanism to be involved in the development of a CTMP in relation to works which affect access to a park.

## **ASSESSMENTS OF INDIVIDUAL PARKS**

The proposed designation footprint will affect several reserves in the open space network which provide for both sports and passive and active recreation activities for the local and wider community. Mr Hendra in his Technical memo assess these reserves in relation to the Project, and includes Map excerpts of them. These include:

Kellaway Drive Reserve

Upgrade of the pathway which runs along the western side of the park is part of a wider 'priority recreational project' identified and described in the council's Howick Walking and Cycling Network plan, 2018. Along its length, the route links up with smaller paths which allows access to the reserve from Harris Rd, Riplington Rd, Morestead Ave, and most importantly, under the busy Te Irirangi Road via an underpass which connects with the Tamaki Heights and Botany residential catchments. The NoR affects the reserve at the Smales Road and Te Irirangi Drive interfaces, however, would not affect the delivery of the pathway upgrade project.

At the Smales Road end of the reserve, the NoR occupies the corner of the Kellaway Drive Reserve with a stormwater pond located within an open grassed area. The area of land affected by the NoR at this location is level and has a high degree of public visibility being supported by two road frontages. This area could be a good location for local scale improvements, such as picnic tables or play. The NoR footprint renders these outcomes less viable, as only a small area at the western side of the grassed area is outside the footprint.

Should the s176 condition be amended as recommended to allow improvements to parks land to provide for the needs of communities, then these effects would be mitigated as improvements would be able to be done as needed, and then eventually replaced appropriately should the designation be given effect to.

In terms of character effects, the UDLMP conditions should ensure that the stormwater pond will integrate with the existing vegetated stream corridor and integrate with paths. The stormwater pond would be generally sympathetic with the existing stormwater function.

At the Kellaway Drive Reserve – Te Irirangi Drive interface the proposal will result in widening of Te Irirangi Drive and a relatively small amount of encroachment into Kellaway Drive Reserve for the road and edge battering. The NoR footprint provides for a construction area within the reserve which would be reinstated post-construction. The underpass will be retained and lengthened. The application Urban Design Evaluation identifies the existing underpass environment at Kellaway Drive / Brinlack Drive as a current identified CPTED risk and a place of (important) cross corridor connectivity. To ensure the expected assessment of existing CPTED risks at that Kellway Drive informs the project outcomes, Mr Hendra recommend that the condition be amended to specifically require an assessment of the existing risks and that these be addressed as far as practicable in the Project outcomes.

### Sancta Maria Ponds

The Sancta Maria Ponds open space is a reserve area which is primarily developed for stormwater purposes, however, also has open grassed areas and an informal path network. The project will affect the reserve at the interface where Te Irirangi Drive will be widened. The works will result in a relatively small area of permanent occupation, batters and a temporary construction area. The primary connection from Te Irirangi Drive into the reserve network is from Treneary Lane, and the project will be required to retain this connection. Overall, the effects on Sancta Maria Ponds are assessed by Mr Hendra to be acceptable and will be managed appropriately via the proposed UDLMP and Ecological Management Plan conditions.

### Rongomai Park

Rongomai Park is a spacious and well-maintained park that covers an area of approximately 9 hectares. It features a range of amenities and facilities, including a the Rongomai Sports Centre, large open field for sports and recreation, softball/baseball diamond, and seating, and spacious open areas for information recreation. Rongomai Park is contiguous with Preston Road Reserve to the west and is adjacent to Tangaroa School and Rongomai School. Rongomai Park plays an important role in the social and recreational life of the Ōtara community. Increasing population growth and residential density will see extra demand placed on Rongomai Park in the future for organised sport and informal recreation. The most significant built feature and vital functional component of Rongomai Park is the car park which is located along the eastern side adjacent to Te Irirangi Drive.

The NoR area occupies the Rongomai Park frontage which includes a footpath alongside. It also steps into the park at the southern end where a ramp and overpass bridge provide safe pedestrian passage across Te Irirangi Drive. The bridge will be replaced with an at-grade crossing. The impact of the NoR on Rongomai Park will be limited and/or restricted access to the reserve during the construction period. Access will be affected due to works immediately adjacent and along the wider Te Irirangi Drive catchment. The application AEE, social impact and traffic assessments acknowledge construction traffic impacts in a general sense but do not specifically acknowledge the impacts on Rongomai Park.

ATE Appendix B contains a property access and parking assessment specific to affected properties. Of the parks directly affected by the project, only Hayman Park is noted in the assessment. Despite the significant impact that the construction of the project may have on the operational capability of Rongomai Park (and other parks) these parks are not noted or assessed. In Mr Hendra's view, the significance of the park for organised recreation is not recognised and the likely duration and extent of impact upon the community's well-being is not adequately assessed. It expected that the construction will result in significant periods of time when access to the park is significantly restricted or is unavailable.

Section 6.1.5 of the ATE sets out land use activities that will need further consideration in the CTMP, and outlines schools, a fire station, town centres and a police station as 'sites for consideration'. Recreational parks are not included in the list. Given the important function that parks as such as Rongomai Park have in providing for the recreational and social wellbeing of communities, and that the times of peak demand can be reliably determined at the construction planning stage, the basis for the omission and lack of specific mitigation proposed is unclear. Mitigation proposed is limited to preparation of a Construction Traffic Management Plan. The objective of the CTMP is to avoid, remedy or mitigate, as far as practicable, adverse construction traffic effects. Given the lack of information about how the project will impact Rongomai Park, the fact that the condition is limited by the caveat of "as far as practicable" the actual effectiveness of the condition in addressing the effects on recreation function is unable to be accurately assessed.

Consistent with the identification of schools as an activity that will need further consideration in the CTMP, the CTMP condition specifically requires that the CTMP shall include:

*(iii) the estimated numbers, frequencies, routes and timing of traffic movements, including any specific non-working or non-movement hours to manage vehicular and pedestrian traffic near schools or to manage traffic congestion;*

In Mr Hendra's opinion, to ensure that the needs for recreational access to Rongomai Park are understood, a condition is warranted to specifically apply to reserves which have an active recreation function, for example:

*"...the CTMP shall include: ... (XX) the estimated numbers, frequencies, routes and timing of traffic movements related to the function of reserves used for active recreation."*

To provide certainty that Rongomai Park will be functional and available for required servicing by the council and active recreation for the immediate and wider community, it is recommended that a specific condition be adopted that will ensure that access is available for: maintenance and servicing as required by Auckland Council; training on weeknights and weekends; and competition and events.

To enable provision of service, it is expected that alternative car parking and accesses may need to be provided.

Safe pedestrian access is needed to enable pedestrians to access the park during construction. The CTMP condition provides for methods to maintain vehicle access to property but does not require provision of pedestrian access. It is recommended that the condition be amended to provide for pedestrian access also.

It is unclear if access to Rongomai Park and the overall active recreation function can be maintained during construction. Generally, most training occurs on weeknights with competition on weekends. If training facilities are not available, then this may affect the viability of some sport codes and clubs may suffer financially.

Mr Hendra recommends a condition that requires assessment of whether Rongomai Park can maintain adequate levels of access to enable usual function. If not, then mitigation is required.

#### Medvale Avenue Reserve

Medvale Avenue Reserve is a linear neighbourhood park and contains the southern continuation of the stream located in Rongomai Park. The park is an important greenway corridor which connects residents to Te Irirangi Drive. As residential development intensifies, the importance of the connecting function will increase. Upgrade of the pathway which runs along the western side of the park is part of a wider 'priority recreational project' proposed route identified and described in the council's Howick Walking and Cycling Network plan, 2018. The route continues north through Rongomai Park which is also identified as a proposed greenway route in the Ōtara-Papatoetoe Greenways Plan, 2017.

The NoR area occupies the northern part of the park near Te Irirangi Drive and involves the construction of a stormwater pond and battering. The proposed stormwater pond and NoR area covers and may render obsolete the existing pedestrian access located at the western side of the Te Irirangi Drive frontage. The existing pathway and the local board plans to upgrade of the route (as shown in both greenways plans) is not mentioned in the AEE or Urban Design reports. It is unclear if the location of the path and consequent impacts has been considered. Due to the large area proposed to be occupied by the stormwater pond at the boundary with Te Irirangi Road it is unclear if the project can be implemented and achieve the intent of the ULDMMP with respect to providing appropriate connectivity to existing land uses. It is therefore recommended by Mr Hendra that a condition be adopted to specifically require retention and provision of a greenway link path at this location.

#### Orlando Reserve

Orlando reserve is a small undeveloped pocket park located at the corner of Te Irirangi Drive and Boundary Road. The NoR area will only marginally affect the road boundary of Orlando reserve. No significant impacts are expected.

#### Manukau Sports Bowl

The Manukau Sports Bowl is located between Te Irirangi Road, the southern motorway and Preston and Boundary Roads. Residential properties adjoin the eastern side. It is a multi-purpose active and passive recreation destination with a velodrome, greyhound track, playground, tennis courts and club buildings, function rooms, sports fields, and open grassed and treed areas with connecting paths.

The Manukau Sports Bowl hosts a variety of sporting events throughout the year and has also been used for music concerts and festivals, such as the Pacific Music Awards and the One Love Festival. It is an important sporting and cultural venue in Auckland, providing a valuable space for community events and entertainment. The Manukau Sports Bowl is located within the Transform Manukau programme area which is a programme led by Eke Panuku to develop Manukau to serve future generations and significant population growth.

In recognising that the Manukau Sports Bowl needs to be developed to provide for the community's recreation needs now and into the future, the Ōtara-Papatoetoe Local Board worked in collaboration with Eke Panuku to develop a master plan. The masterplan was developed via a thorough process of needs assessment, research, workshops and public consultation. Divided into three stages, over the next 30 years, the Masterplan shows how the Manukau Sport Bowl will meet the sporting and formal and informal recreation needs of future residents. It was formally adopted by the Ōtara-Papatoetoe Local Board in February 2023. The master plan is to be implemented in stages as the funding becomes available. Potential funding sources include asset renewal, Eke Panuku capital expenditure, the application of service property optimisation and external funders.

Development potential of areas along the eastern side of the park has been identified as potentially available for development by Eke Panuku. The intention is that funds raised would be used to develop the overall masterplan. At the time of the NoR notification, the Manukau Sports Bowl Masterplan was ready for Local Board adoption. The requiring authority was aware of the masterplan process and its importance to the local board and communities of Manukau. The application AEE notes that the project team has held workshops with Eke Panuku with respect to a potential stormwater treatment device within the Manukau Sports Bowl. Agreement for Auckland Transport to permanently locate a stormwater device within the Manukau Sports Bowl has not been reached.

The NoR area is located along the frontage of Te Irirangi Drive which is an area occupied by a vehicle entrance, internal vehicle road, car park and trees and vegetation. This area is required for construction and the new road corridor. The NoR area also extends up the eastern boundary and doglegs into the park opposite the Sandrine Avenue entrance. This area is intended to be occupied by a stormwater treatment device to service the needs of the A2B project.

The area of land proposed to be designated within the Manukau Sports Bowl is identified within the Masterplan as both the location of a children's hub including a playground, splash area, and nature playground and amenity planting. However, more significantly, this area is also the land identified as being suitable for residential or commercial development anticipated as a funding source to enable wider development of the park. This area was chosen for development due to the favourable residential edge and because the remainder of the site is shown to be able to accommodate the open space development needs of the community. The impact of the designated area is that the overall development of the park needs to be reconsidered. This is because the design and functional aspects are interrelated and interconnected.

The Sandrine Avenue entrance is identified in the Masterplan as an entrance which can be improved. The proposed stormwater device area would almost completely occupy the entrance leaving very little area for an entry path. An entry path would be squeezed against the edges of the pond and as such, would be constrained and would likely result in poor CPTED outcomes. The opportunity to improve the street edge condition of the park at this location would in Mr Hendra's opinion effectively be lost.

The supporting SIA acknowledges the "...*extensive redevelopment plans for the Manukau Sports Bowl...*" and acknowledges 'Fear and aspirations' as moderate adverse effects upon directly affected landowners.

The directed affected landowner in this case is Auckland Council. The affected community is described to experience:

*"Potential negative impacts associated with fear of disruption to local community character, and perceptions about potential long term changes to the fabric of the community, particularly in combination with other potential construction activity such as the Eke Panuku redevelopment of the Manukau Sports Bowl ..."*

Mr Hendra would expand upon the assessment to also acknowledge that local communities will feel fear, anxiety, distrust and disappointment that the Manukau Sports Bowl cannot be developed in accordance with the adopted Masterplan which was developed with extensive consultation. The community's reasonable expectation, that their input was valued and that the adopted Masterplan would be delivered, would not be fully met. The imposition of the NoR area by Auckland Transport within the Manukau Sports Bowl may also be perceived to erode the standing of the Ōtara-Papatoetoe Local Board and cause reputational damage to the council overall.

The proposed designation on Manukau Sports Bowl limits Council's ability to implement any upgrades or improvements within the designated area. As explained, the impact extends to delivery of the wider design, and impacts upon the identified development and funding option. Mitigation has not been offered. Parks Planning is not able to support the proposed designation within the Manukau Sports Bowl due to the impact it will have upon the intended use and development of the park. Nevertheless, there remains opportunity for the Requiring Authority to work with the council to develop an "Integration Framework Plan" comparable to the process and outcomes achieved for Hayman Park. Should conditions be proposed which would require the collaborative development of a framework plan for the Manukau Sports Bowl, Mr Hendra would be able to reconsider whether the proposed designation can be supported. The intent of the condition would be for the development of a framework plan for the Manukau Sports Bowl, which would provide for the expected development of the parks whilst also addressing the stormwater management needs of the A2B project.

Another alternative is for the Requiring Authority to design the project to not require valuable public open land for stormwater management purposes. Eke Panuku NoR2-72 on Manukau Sports Bowl is reported in the submissions above.

### Hayman Park

Hayman Park is a large (10 hectare) tree-lined suburban park near Manukau Metropolitan Centre, and adjacent to the Manukau bus and train stations. The park has sealed accessible paths around the perimeter and past the pond in the middle of the park. Access is from Davies and Ronwood Avenues, and Lambie Drive. Hayman Park contains a large playground, natural play space, toilets, skate park, basketball court, picnic tables and seating, bike stands, and drinking fountains are inside the park. Public parking is located along Davies Avenue which has been developed with a landscaped median including pedestrian access and a wide plaza type connection to Manukau central to the east. Limited public parking is available on Ronwood Avenue.

The eastern boundary of the park is flanked by Manukau Station. The NoR area is located alongside the Lambie Drive and Davies Avenue frontages and returns along Ronwood Avenue.

Pre-lodgement, the intention of the requiring authority was to designate a central area for stormwater purposes. Following a successful collaboration process between council, Eke Panuku and the Requiring Authority a draft "Hayman Park Integration Framework" has been developed (March 2023). The framework provides direction for how the park can be developed to balance recreational, urban, transport and stormwater functions. The result of this work is that the extent of the NoR land is only around the edges rather than within the central area of the park. The Hayman Park Integration Framework is recommended by Mr Hendra as a potential model to address the unsupported outcomes of the NoR at the Manukau Sports Bowl.

Due to the limited extent of NoR area within the park, and confidence that the outcomes will be achieved via a collaborative process, the effects of the NoR on Hayman Park are assessed to be acceptable. Eke Panuku NoR2-72 on Hayman Park is reported in the submissions above.

### Puhinui Domain.

Puhinui Domain, is a linear and largely internalised park, located largely between Puhinui Road and Brett Avenue. It has short road boundaries and entrances at all sides, connecting to Plunket Avenue, Brett Avenue (x2), Grayson Avenue (x2), Cavendish Drive and Puhinui Road. North of Brett Avenue, the reserve follows a narrow band of land to Puhinui Avenue and a ninety-degree access to Grayson Avenue. The park contains paths from the entrances, a central pedestrian bridge and a car park at one of the Brett Avenue frontages.

The reserve has a passive recreation and water conveyance function. Due to the lack of wide road frontages, approximately half adjoining commercial land uses and narrow accesses, the park is likely to suffer from poor passive surveillance and may have safety issues, or people may experience perceptions of safety issues.

A concrete lined stormwater channel/stream is oriented north-south between Puhinui Road and Cavendish Drive. The NoR proposal is to use and develop Puhinui Domain for stormwater management purposes, including the naturalisation of the existing concrete lined channels and a larger pond area at the southern end.

Council may wish to develop the park as a local destination in response to significant growth planned around Manukau Central. The location and extent of any development is not certain but could only occur outside of the designated area. The recommendation to expand the scope of the proposed s176 condition would apply in this case to allow the council to develop small scale facilities, such as a playground, without requiring permission.

An alternative route over the restored stream would provide people with alternative routes and therefore improve safety outcomes. A condition requiring that outcome in relation to Puhinui Domain is recommended by Mr Hendra.

### **Planning Assessment**

I understand the key matters to be:

- Greater scope within s.176 to undertake parks improvements and changes, to reflect increasing population pressure for parks development;
- Access to parks during construction, CTMPs and SCEMP to make specific provision for parks access;
- Council Parks to be a stakeholder in SCEMP and ULDMP;
- Commitment to masterplans and adopted development plans for Rongomai Park, Manukau Sports Bowl and Hayman Park;
- Specific park responses:
  - Kellaway Drive Reserve to be able to be developed for passive parks functions (s.176)



- Kellaway Drive Reserve at Te Irirangi Drive interface (pedestrian underpass) to have CPTED assessment and addressed in Project
- Rongomai Park to have CTMP provision for access, traffic and parking associated with active recreation
- Medvale Avenue Reserve to have retention and provision of a greenway link path access to Te Irirangi Drive
- Manukau Sports Bowl respect Master Plan, develop a Park Integration Framework as for Hayman Park, or find alternative stormwater device land or compensate to allow parks development
- Puhinui Domain to be able to be developed with small scale facilities such as playground (s.176) and be provided with routes over the restored stream.

Based on the advice provided by Mr Hendra, I as the reporting planner consider that the adverse effects of the Project on open spaces and community facilities can be avoided, remedied or mitigated, subject to an amended set of conditions being imposed for NoRs 1 – 4B. The amendments associated with this recommendation are set out in Appendix 5 to this report.

The effect of the designations is that council cannot develop the affected areas of its parks or facilities without the prior written consent of the Requiring Authority. This impacts upon the council's ability to meet the recreational needs of the community's experiencing growth, increased density consequently an increasing need for places to recreate.

The Requiring Authority has offered amended conditions that will provide for Auckland Council to undertake limited works within a designation footprint. The condition originally applied to network utilities and is commonly offered by AT as part of a NoR.

The condition is supported by Mr Hendra insofar as it offers a level of development within the designated land area. The scope of work permitted under the condition is subject to interpretation, particularly with respect to clause 6(a)(iv), where parks and park facilities may or may not be considered network utilities, and where part of a park such as a grassed area may or may not be considered a 'park facility'. The preference of Parks Planning is that the scope is not limited, and if so, that the term 'parks' is applied as an all-encompassing term, replacing the term 'park facilities'. I support that amendment to the condition.

In relation to network utility operators (section 176 approval), the effect of the designation is that council cannot upgrade or develop land within the designated area of land without the prior written consent of the requiring authority. As assessments with respect to specific open spaces demonstrate, the council needs to be able to improve and upscale service provision within parks to provide for needs of communities, especially with respect to population growth and changes to the needs of the communities.

To address this matter Mr Hendra recommends that the requiring authority provide a condition which provides a blanket consent to allow for the designated areas to be upgraded and developed as the council see fit. Mr Hendra recommends that the scope of “*upgrade and replacement*” and “*in the same location with the same or similar effects as the existing park facility*” be more clearly described to provide more certainty in application. I consider that the purpose of s 176 approvals would be defeated if a blanket consent were granted. Section 176 approvals allow the Requiring Authority to protect their designation, and ensure their future works will not be adversely affected by substantial works of others. Common meanings of “*upgrade and replacement*” and “*in the same location with the same or similar effects as the existing park facility*” would need to be used to guide the s176 approvals.

The park most affected by pre-construction or route protection effects is the Manukau Sports Bowl where significant redevelopment and upgrades are planned. A masterplan, prepared with extensive consultation with the community and in partnership with Eke Panuku was formally adopted by the Ōtara-Papatoetoe Local Board in February 2023. The Masterplan would not be able to be delivered as intended because the designated area extends within the southern boundary and south-eastern corner adjacent Sandrine Avenue. Significantly, the designation extends into an area of land which is identified as an opportunity for commercial development anticipated to fund the overall development. This means the designation and its proposed land take, if not compensated early, would disable or at least defer for a number of years the ability of the community to fund its parks upgrades.

Mr Hendra considers the preferable way for the route protection phase effects to be addressed is for conditions to be offered which would allow for the development and upgrading of parks within the designation footprint. However, the Requiring Authority has an interest to not provide consent for improvements and development of parks land as this exposes risk for future costs when compensated. Alternatively, or in parallel, Mr Hendra considers land acquisition and agreements may be brought forward to provide adequate and suitable compensation to enable council to develop the overall open spaces as necessary. I would support the alternative proposed, of compensation brought forward, rather than developing and upgrading land which would then have an improved value needing compensation. The land could continue to be used for recreation purposes until required for the works, as are many drainage reserves and paper roads.

Prior to construction commencing there must be solutions put in place to ensure that parks facilities are able to be accessed when needed, and that when facilities are rendered unavailable, that replacement facilities are provided either at the site or a nearby location. The duration of construction affecting open spaces is unknown but is expected to at least be several months if not longer. There will be direct adverse effects on people’s ability to access destinations, either restricted or with no access for periods of time. Council’s ability to maintain and service facilities will also be restricted. Even if access is partly provided to unaffected parts of the parks for some periods of time, the access may not be adequate for service and maintenance.

I as reporting planner am recommending that the SCEMP Condition be amended to require certification of the SCEMP rather than information only, and to allow Auckland Council more time to review and certify the SCEMP. Council Parks and Community Facilities should be a stakeholder and participant in the SCEMP and ULDMP preparation, as well as the Council being regulator certifying of the Project works’ management plans.

Mitigation for the permanent loss of open space land is not addressed in the AEE. Parks Planning posed s92 questions on this matter and the Requiring Authority responded:

*“Engagement with Auckland Council Community Facilities has been ongoing throughout the development of the AEE and will continue post lodgement. It is anticipated that the outcomes of these discussions will be subject to some form of formal agreement between the various parts of Auckland Council involved. We intend to update the Auckland Council processing team on these discussions in advance of the hearing and preferably in advance of the release of the initial s42A report. Notwithstanding the above, one outcome of discussions to date is an agreed revision to the proposed Network Utility Operators condition to include specific reference to Auckland Council and park facilities ...” [s 92 response]*

If an agreement which addresses potential loss of function during construction and permanent replacement facilities remains unfinalised, then I agree with Mr Hendra that these matters must be addressed via conditions which ensure the same outcome. Overall, I consider that early compensation should be sought for parks land takes, to allow for the (Masterplanned) funding of parks upgrades and acquisition of any required additional land for parks activities.

#### **4.4.10 Social effects**

##### **Application**

##### **A2B SOCIAL EFFECTS APPLICANT’S ASSESSMENT**

Social effects are addressed generally in AEE section 9.6, and in the Social Impact Assessment (‘SIA’) prepared by Ms Julie Boucher of Te Tupu Ngātahi, and dated 9 December 2022.

The SIA identifies and assesses the potential social impacts of the construction and operation of the Project and recommends strategies to manage these impacts. AEE section 9.1 sets out the positive effects of the Project, many of which are social effects, such as better accessibility.

The methodology used to assess social impacts includes:

- **Step 1:** A review of literature on social impacts of rapid transit projects;
- **Step 2:** Development of an initial social baseline;
- **Step 3:** Engagement with Social Impact Assessment stakeholders (Mana whenua, interviews with key stakeholders and community members);
- **Step 4:** Categorisation of social impact based on Project information, the literature review and engagement;
- **Step 5:** Update of the social baseline based on *Step 4*; and
- **Step 6:** Identification and evaluation of social impacts.

## **PRE-CONSTRUCTION**

Te Tupu Ngātahi states that the Project may result in changes to people's way of life. As properties within the proposed designation boundary are acquired for the Project, people and businesses are likely to move away from the area if alternative sites cannot be found. Within the Puhinui and Papatoetoe area, a number of businesses that are considered important to the community will potentially be lost, including:

- Mobil Puhinui Road;
- Hari Superette;
- Puhinui Superette; and
- Pukeko Preschool, Papatoetoe.

Te Tupu Ngātahi considers a loss of businesses will mean changes to routines and convenience for some residents. These residents will then need to access those same goods and services from businesses located further away.

As properties are acquired, in the period prior to construction, some properties might remain vacant. These properties can attract anti-social behaviour which can adversely affect people's perceptions of personal safety. Currently, anti-social behaviour has been identified with the vacant Gardener's Cottage on Puhinui Road, and Te Tupu Ngātahi considers many in the community would like to see the Cottage demolished.

Te Tupu Ngātahi considers that over the period prior to construction, people's health and wellbeing will potentially be affected through increased stress and anxiety for landowners and occupiers, business owners and operators and those employed by directly affected businesses.

Directly affected property owners and occupiers, including business owners and operators, can remain on their properties in the period prior to construction. However, having a designation on a property does place some restrictions on how the property can be used, particularly in relation to changes or improvements. In accordance with section 176(1)(b) of the RMA, anyone (other than a requiring authority with a designation) is restricted from carrying out work on the designated land that would prevent or hinder the designated work without first obtaining the requiring authority's consent.

This could feel to some landowners as an impact on their personal and property rights. This feeling might also be present during the active acquisition stage if properties have to be compulsorily acquired.

As businesses close and leave the area it will also result in a loss of employment and livelihood for people working within those businesses, unless the businesses are able to relocate and retain their existing staff.

## **CONSTRUCTION**

Te Tupu Ngātahi states that construction activity can impact people's way of life as a result of changes, both temporary and permanent to existing travel patterns. This will be disproportionately experienced by those who work for or visit social services or places that cater to people with disabilities. This is likely to be more prevalent in Manukau Central.

Roads that don't usually have a lot of activity may be used as temporary detours which could affect both the amenity of those roads, but also the ability for those residents and businesses to undertake their typical activities.

Parking and access to some businesses or facilities that are important to the community will be impacted during construction. This is particularly evident in Manukau Central where there is on-street and on-site parking impacted by the Project which may lead to disruption for businesses.

People living and working in areas subject to construction can feel less safe, especially at night. Changes to access and sightlines as a result of hoardings can reduce access to and the visibility of businesses leading to a potential loss of business for some.

Noise, dust and vibration can also reduce the amenity of an area, especially community facilities and open spaces. Te Tupu Ngātahi states that construction of the BRT corridor and associated structures may reduce the amenity in some areas, such as:

- Manukau Memorial Gardens;
- Hayman Park; and
- Adjoining properties along Puhinui Road, in the vicinity of Puhinui Station.

## **OPERATION**

There will be permanent changes to property access along the corridor given the restriction of right-turn vehicle movements.

Te Tupu Ngātahi considers there will be increased community severance as a result of the Project. This is particularly evident on Puhinui Road where the centre running BRT corridor will restrict the ability of pedestrians to cross the road.

## **MEASURES TO MANAGE SOCIAL IMPACT**

The Project will result in a change to people's way of life and impact businesses during construction. Based on learnings from previous Auckland Transport projects and an international literature review, Te Tupu Ngātahi has identified a range of measures to manage social impacts for communities and businesses prior to and during construction. A summary of these methods is detailed in the SIA. Methods that have been developed into conditions of the proposed designations are described below:

- With respect to the impact of properties remaining vacant as they are acquired, it is noted that Auckland Transport will undertake its best endeavours to ensure properties are managed in a manner that does not adversely affect the surrounding area and this is a condition on the proposed designations (A2B NoRs 1 – 3). In addition, Auckland Transport have an internal team which proactively tenant properties that have been acquired;
- The implementation of a Stakeholder Communication and Engagement Management Plan (**SCEMP**) prior to the start of construction to identify how the public and stakeholders (including directly affected and adjacent owners and occupiers of land) will be communicated and engagement with immediately prior and throughout the Construction Works. This will include:
  - Determining adequate notice periods for the commencement of construction activities and works that affect access to properties;
  - Informing parties of the expected timing, duration and staging of works and regular updating of progress; and
  - Providing feedback, inquiries and complaints prior to and during the construction process.
- The implementation of a Development Response Management Plan (**DRMP**) prior to the start of construction to provide a framework to assist businesses affected by the Project during construction. This will include:
  - Recommendations for measures to be undertaken to manage the impacts of Construction Works on the identified businesses;
  - A summary of any proactive assistance provided to impacted businesses; and
    - Identification of opportunities to co-ordinate the forward work programme, where appropriate with infrastructure providers and development agencies;
- A Project website (or equivalent virtual information source) will be set up with information on the Project during the period prior to construction. The website will be updated throughout the Construction Works.
- Implementation of a CTMP to manage construction traffic and disruption to the local transport network including methods to:
  - Maintain vehicle access to property and/or private roads where practicable, or to provide alternative access arrangements when it will not be; and
  - Communicate traffic management measures to affected parties.
- Implementation of a Construction Noise and Vibration Management Plan (**CNVMP**) to provide a framework for the development and implementation of best practicable options to avoid, remedy or mitigate the adverse effects on receivers of noise and vibration resulting from construction and to manage any adverse construction noise and vibration effects on sensitive receivers, including methods to:
  - Communicate and engage with nearby residents and stakeholders; and
  - Minimise construction disruption for affected properties during construction.

- In addition to a CNVMP, it may be necessary to produce Site Specific or Activity Specific Construction Noise and Vibration Management Schedules (Schedules) where noise and/or vibration standards are predicted to be exceeded for a more sustained period or by a large margin.
- Implementation of an overall Construction Environmental Management Plan (**CEMP**) to manage potential construction effects.

### **Submissions**

Submissions relating to social effects included those on planning, timing uncertainty, imposition and dislocation of family and community, engagement, loss of parking, access and convenience, severance of operational sites, community severance by road median and right-hand turn restrictions, property acquisition, effects on local business, construction disruption and flooding exacerbated. These submissions are also reported in other sections of this s42A report, but here as a social dimension.

Counting submissions and allocating to which NoR has proved difficult as submitters were not always specific about which NoR their submission related to, and many submissions related to multiple NoRs. Many submitters did not explicitly say whether they opposed, supported or were neutral to the proposal. As such, 198 submissions were received across the five NoRs. Most were either opposed to the proposal, or did not explicitly oppose the proposal but wished the NoR be withdrawn or approved only with significant amendments. For example, for 82 submissions relevant to NoR2: Five supported the proposal, two were neutral subject to relief sought, forty did not explicitly state opposition or support, but most of these submitters either wanted the NoR withdrawn, sought changes to conditions, or sought relief, and thirty-five explicitly opposed the proposal.

Most submitters who supported the proposal had personal and/or community-level concerns. For example, for the five submitters supporting NoR2, these are the key themes:

- Support, but only with conditions requiring no construction effect to their business site and no adverse effects on construction or long term-parking (BPG Developments Ltd NoR1-10)
- 'Losing our first home is really devastating', concern about effect on market value of property, concern about the long lapse period, concern about the compensation process (Sandeep Kumar NoR2-42)
- Adverse effects on stormwater on the Manukau Sports Bowl site, adverse effects on Hayman Park, adverse effects on ability to deliver regeneration plans and future streetscape plans, traffic construction effects on Hayman Park, lack of safe crossings from the surrounding city centre to Hayman Park including at Amersham Way, loss of mobility parking spaces, concerns to be addressed if Project is to proceed (Eke Panuku Development Auckland NoR2-72)
- Late engagement with community members, difficult language and large documents were hard for people to engage with, short submission period, long lapse period (Arena Williams MP NoR2-74)
- Are leaving the area permanently anyway (Maki and Makea Tereroa NoR2-11).

Summarising the key themes of those against the proposal or neutral (with concerns) is challenging given the number and range of themes and Mr Quigley provides the following as a snapshot only:

### **PLANNING**

- A lapse period of 15 years being too long and creates uncertainty for homeowners and businesses about their future (e.g., Tunicin Investments Ltd NoR4A-01; Business Manukau NoR2-38)
- Anxiety about the potential loss of homes and businesses (e.g., Rawandeep Kaur NoR2-06; Business Manukau NoR2-38)
- Existing consented plans for development of business sites, hotels and apartment buildings are significantly impacted (SPG Manukau Ltd NoR2-09; Murdoch Newell Management Ltd NoR2-17). This has the potential to impact financially on the owner, and the consequent jobs arising from development and operation.
- Late engagement with directly affected community members, little detail on the scale or detail of A2B and therefore people could not realise how it might affect them, less engagement with community members who are not directly affected but who will be significantly affected; the difficult language and large documents were hard for people to engage with, short submission period (Arena Williams, NoR2-74; Heather Haylock, NoR2-53).

### **CONSTRUCTION AND OPERATION CONCERNS**

- Property acquisition and removal leading to new noise effects on previously shielded homes. These homes have not been included in letters informing about the proposal or inviting submissions (Heather Haylock NoR2-53)
- Property acquisition leading to direct loss of businesses or business disruption and costs (Business Manukau NoR2-38; Michael Sheridan NoR2-40; Paul Street NoR1-45; Alan Steele NoR4A-03) and consequent loss of employment, livelihoods and small businesses who serve local communities.
- Property acquisition leading to direct loss of family homes and consequent anxiety about the future and sadness of the loss (e.g., Simran Krishna NoR2-14; Balwinder Singh NoR1-05; Wei Chao Kuan NoR3-09).
- Temporary and permanent loss of on-street and on-site carparks (including mobility parking) for households, apartment buildings and businesses (e.g., Monish Prasad NoR2-08; SPG Manukau Ltd NoR2-09; Lynette Henderson NoR2-12; Legends Property NoR2-18; Business Manukau NoR2-38; Michael Sheridan NoR2-40; Auckland Body Corporate NoR2-50; Michelle Hira NoR3-19). Households describe the effect on their way of life, and businesses describe potential effects on customers access and consequent viability of their business.
- Traffic congestion and truck/heavy vehicle movements and consequent time-loss, avoidance of area, safety and amenity effects (Business Manukau NoR-38; Auckland Body Corporate NoR2-50; Ministry of Education NoR2-78).



- Construction closure of street entrances/exits, changes to local roads and through access and consequent decrease in access, reduced customer access, increase in safety risk for customers/households from far greater use of remaining access points, for both residential, businesses and community organisations (SPG Manukau Ltd NoR2-09; Business Manukau NoR2-38; Michael Sheridan NoR2-40; Auckland Body Corporate NoR2-50). Submitters describe reduced safety, households describe the altered movements they would need to make and reduced access (Alice Lopez NoR2-33), and businesses are concerned for a loss in custom and consequent viability.
- Loss of roadside presence and signage and consequent loss of business custom, and business viability (Michael Sheridan NoR2-40). Also, landlords are concerned with business leaseholders terminating their tenancy.
- Effects on access to business loading docks (Legends Property NoR2-18; Business Manukau NoR-38; Michael Sheridan NoR2-40). Landlords and businesses are concerned with the efficient running of their business and consequent viability.
- Reduced property values (Pengxian Huang NoR2-02; Alice Lopez NoR2-33). Participants are concerned about market value compensation they will be offered when they don't want to sell or move.
- Right hand turn restrictions on businesses and households (SPG Manukau Ltd NoR2-09; Business Manukau NoR-38). Businesses are concerned about the reduced access by customers and households are concerned about the increase in travel (up to 5km per round trip) required to do simple/short trips (Heather Haylock NoR3-26). They fear consequences for their property value as well.
- Construction noise, vibration, dust and amenity loss, for both residences, schools and businesses (Legends Property NoR2-18; Business Manukau NoR2-38; Kainga Ora NoR2-76; Ministry of Education NoR2-78). Businesses are concerned about the amenity of their business from the perspective of a customer, say dining, or browsing, or avoiding the area altogether. Homeowners are concerned about sleep effects, physical health effects from noise and dust, and mental health effects.
- Increased risk of flooding, especially after the January 2023 flooding in this area of Auckland (Duncan and Sandra Loudon NoR2-13; Heather Haylock NoR3-26; Kainga Ora NoR2-76). Submitters are concerned about the risk of further damage and financial loss to their business.
- Operational traffic noise, vibration, dust on consequent amenity loss and potential health effects, for both residences and businesses (Legends Property NoR2-18; Business Manukau NoR2-38; Kainga Ora NoR2-76). Businesses are concerned about the amenity of their business from the perspective of a customer, say dining, or browsing, or avoiding the area altogether. Homeowners are concerned about sleep effects, physical health effects from noise and dust, and mental health effects.
- Concerns regarding severance of town centres and surrounding residential areas, especially pedestrian, cycling and vehicle connections across the thoroughfares (Business Manukau NoR2-38; Heather Haylock NoR2-53; Kainga Ora NoR2-76; Gordon Barthow NoR2-81) and requesting a pedestrian and cycling severance study upfront.

## **Specialist Assessment**

Social effects have been assessed by Mr Robert Quigley, Quigley and Watts Social Impact Assessment in a memo dated 28 April 2023, which is provided in as Appendix 1 to this report.

### **SIA RECOMMENDATIONS NOT CARRIED ACROSS TO A2B NoRs' CONDITIONS**

Mr Quigley considers the Applicant has had good advice from the Social Impact Assessment (SIA) regarding potential social effects and how to respond to these via several management plans and policies, as named in the SIA: Community and Stakeholder Engagement Strategy; Development Response Plan; Community Health and Wellbeing Strategy; Property Management Strategy; Social Outcomes Strategy; Good Neighbour Policy; and Respite and Relocation Policy.

However, Mr Quigley considers the recommendations proposed in the SIA have not been adequately included in A2B NoRs' conditions, and he describes the differences between the SIA's recommendations and the conditions as follows:

For Community and Stakeholder Engagement, the NoR conditions are highly transactional, and most of the text is a list of items to be included within the SCEMP. The SIA on the other hand is active (not passive) with phrases like 'help them get ready for construction', as well as actively seeking to 'identify and respond to issues' and collaborative in design via 'facilitate the ongoing involvement of stakeholders and community groups and organisations in the development of potential mitigation strategies.' The purpose of the SIA's Community and Stakeholder Engagement Strategy is fulsome in comparison to the weak purpose of the SCEMP's condition.

For the Development Response Management Plan, again the SIA presents a comprehensive and coordinated approach. It proposes the Applicant would work closely with the community in developing the plan, gather baseline data, and address the potential effects via multiple approaches including an assistance package, advocacy, leadership, coordination and mental health support. The conditions as proposed are highly unlikely to be able to proactively deal with the potential extreme-negative and high-negative effects identified. The existing conditions are also highly likely to further aggravate the community. Development Response Plans typically focus on businesses, yet community groups and residents should not be left out of Development Response Plans. The potential effects which they are exposed to are also dynamic and require an agile solution. Submitters referred to the need for a Development Response Plan and specifically cited the SIA (Business Manukau, NoR-38), not the conditions.

For the Community Health and Wellbeing Strategy, Property Management Strategy, Social Outcomes Strategy, Good Neighbour Policy, and the Respite and Relocation Policy, there are little to no equivalents in the conditions. In Mr Quigley's opinion, it is clear the Applicant does not intend to address the potential extreme-negative and high-negative social effects identified in the SIA, or engage with the community on these issues in a meaningful way.

## **PROPOSED MITIGATION 1**

Mr Quigley considers that the diverse social effects projected from A2B will be difficult to appropriately mitigate via typical management plans. The people/organisations/businesses which will experience most of these effects are those that live/learn/work/play in the area beside the project. As such, an effective and agile Development Response Plan is required for potentially affected households, community organisations and businesses. Submitters did not provide suggested mitigations beyond the Development Response Plan (e.g., Business Manukau, NoR-38) or provided suggestions that would sit well in a Development Response Plan (Heather Haylock, NoR3-26). This reinforces the need for such a plan to address submitters concerns. Mr Quigley recommends:

- a. The conditions underpinning the Development Response Plan should be based on the objectives sought to be achieved and matching the intent, breadth and collaborative approach of the SIA's recommendations.
- b. A hardship fund is required. Setting up the fund is only helpful if access is relatively simple and quick. Being overseen by a co-governance committee or the like will increase the likelihood of the fund working for both the community and Applicant.
- c. Explicit inclusion in the Development Response Plan for households, community organisations and businesses should occur for the following issues:
  - i. Right-hand turn restrictions
  - ii. Loss of on-site carparks
  - iii. Loss of on-street carparks
  - iv. Exposure to noise, vibration and/or dust that does not exceed the standards but is otherwise judged to have a negative amenity impact, including properties not acquired by the Applicant but now exposed to greater amenity impacts due to removal of other buildings/structures
  - v. Independent and confidential support for anxiety and mental health outcomes
  - vi. Assistance for those tenants, leaseholders or owners who are asked to move e.g., individualised and group support through the process, social worker to help the person/family help find social and health services, and support with moving costs
  - vii. The current case by case approach proposed by the Applicant with respect to the Public Works Act substantially works against claimants. While the Public Works Act funds work for those directly affected it does not assist those not directly affected. The Development Response Plan can assist by helping those affected collaborate for efficiency and fair outcomes. Many people affected (including those indirectly affected) will gain clarity and support by being helped to work together.
- d. The Development Response Plan should be developed soon after the NoRs are confirmed and be operational until the end of construction.

e. The process of developing the plan needs to be truly collaborative. Given English as a second language, older people and low literacy within parts of the affected communities, face to face in-person engagement will be required.

f. The Development Response Management Plan should be developed and implemented by an entity with substantial independence from the Applicant. The development, operation and outcomes of the plan should be monitored and reported on by a separate independent entity under the auspices of Auckland Council.

### **PROPOSED MITIGATION 2**

The complex and long-running nature of community engagement for A2B requires a community engagement strategy that matches the collaborative nature, intent, breadth and active nature of the SIA's recommendations. Mr Quigley recommends:

a. The Community Engagement Plan should be developed soon after the NoRs are confirmed and be operational until the end of construction.

b. The Development Response Management Plan should be developed and implemented by an entity with substantial independence from the Applicant. The development, operation and outcomes of the plan should be monitored and reported on by a separate independent entity under the auspices of Auckland Council.

### **PROPOSED MITIGATION 3**

The SIA's social outcomes strategy is a tangible way to cement engagement of the community in the development of the project. Characteristics of the SIA's social outcome strategy are not present in any existing conditions. Mr Quigley recommends:

a. The Social Outcome Strategy should be developed alongside further engagement and collaboration with the community. The strategy should match the collaborative nature, intent and breadth of the SIA's recommendations.

b. The Social Outcome Strategy should be developed and available at least 18 months prior to Stage of Work construction and remain operational until the end of Stage of Work construction.

c. The Development Response Management Plan should be developed and implemented by an entity with substantial independence from the Applicant. The development, operation and outcomes of the plan should be monitored and reported on by a separate independent entity under the auspices of Auckland Council.

### **PROPOSED MITIGATION 4**

Develop a Good Neighbour policy following the meaning and intent of Waka Kotahi's Good Neighbours Guide. Ensure the Guide is available 6 months prior to Stage of Work construction. The operation and outcomes of the plan should be monitored and reported on by an independent entity under the auspices of Auckland Council.

Project condition 7 requires re-writing to collaborate with community organisations for the purpose of encouraging the active use of acquired sites. The operation and outcomes of the plan should be monitored and reported on by an independent entity under the auspices of Auckland Council.

#### **PROPOSED MITIGATION 5**

Construction noise effects on Manukau Memorial Gardens are inadequately dealt with in the conditions. The conditions require the specific mention of the gardens and the need for any contractor to liaise with the operator of the gardens so that noise (at a threshold agreed by noise experts) is not exceeded during planned services or memorials.

#### **PROPOSED MITIGATION 6**

The lack of detail about pedestrian and cyclist desire lines, movement between key destinations and level of service for a transport project is concerning. As such, little is known about community severance, especially for that across the bus rapid transit corridor. To rectify, a connectivity assessment is required to be undertaken soon after notification of consent. The results and how they have been used to inform the design will be shared with the community, stakeholders and Auckland Council.

#### **PROPOSED MITIGATION 7**

There is a lack of Auckland-specific empirical evidence regarding the cost and benefits of carpark removal. A condition is required for high quality research to be carried out, and the results used to inform the design and construction of A2B. The Applicant has the near-identical NoR for the EB2 and EB3 busway project. The EB2 and EB3R project is at least a decade ahead of AB2's proposed start of construction, and is therefore a perfect option for undertaking such research. The research should be developed and undertaken by an entity with substantial independence from the Applicant. The research methodology should be peer reviewed by Auckland Council.

#### **PROPOSED MITIGATION 8**

Deciding not to put a Bus Rapid Transit stop at the Manukau Memorial Gardens site was based on the options assessment saying the area is low density housing. Mr Quigley considers this a weak argument for a regionally significant site, and recommends a stop is inserted at the gardens.

#### **CONDITIONS**

Mr Quigley concludes the Social Impact Assessment to be of high quality with some issues of relevance to decision makers:

- a. Operational right hand turn restrictions have no proposed mitigations
- b. Operational severance has weak mitigations
- c. Operational loss of on-site and on-street carparking has weak mitigations
- d. Construction noise adjacent to Manukau Memorial Gardens has no proposed mitigations
- e. Limited engagement has been undertaken with the community

- f. Manukau Memorial Gardens does not have a Bus Rapid Transit stop.

However, Mr Quigley considers that the most significant issues regarding social effects are not with the SIA, but the conditions proposed. Because the SIA identified numerous extreme-negative and high-negative social effects, and acknowledged difficulties in engaging residents, the SIA recommended a comprehensive and agile set of management plans and policies. Mr Quigley considers that, while some have been taken through to the conditions in name only, others have little to no carry through. As such Mr Quigley has recommended a number of amended and new conditions:

- a. Altered conditions for an effective Development Response Management Plan
- b. Altered conditions for an effective Stakeholder Communication and Engagement Management Plan
- c. New conditions for a Social Outcomes Strategy
- d. New conditions for a Good Neighbour Policy
- e. Altered conditions regarding acquired sites
- f. New conditions regarding construction noise at Manukau Memorial Gardens
- g. New conditions requiring research on carpark loss and the consequent application of results to A2B.

With the recommendations above, Mr Quigley considers the potential social effects of the project will be managed as far as practically possible. I have attached Mr Quigley's Condition recommendations tracked changes to his Technical Memo (Social) in Appendix 1. However, I have not supported his full recommendations into my Suggested Condition Set in Appendix 5.

### **Planning Assessment**

Based on the advice of Mr Quigley, I consider that adverse social effects arising from the Project can be adequately avoided, remedied or mitigated through the following framework of provisions:

- Modifying the design of extent of the NoRs, to minimise extension onto adjacent properties;
- Amended Conditions for Mana Whenua Partnership;
- Amended Conditions for the SCEMP and DRMP to improve engagement and with a broader range of stakeholders, and by including hardship funding to assist those directly or indirectly affected by the NoRs and the construction activities;
- Amend the ULDM Condition to include stakeholder participation and community response;
- Relying on construction management plans to manage construction effects; and
- Adoption of a Good Neighbour Policy following the meaning and intent of Waka Kotahi's Good Neighbours Guide. Ensure the Policy is available 6 months prior to Stage of Work construction.

Mr Quigley recommends converting the SCEMP and DRMP to include social outcomes strategy and stronger engagement. I support that change to a certain extent, however not to the full extent proposed by Mr Quigley. Due to the 15-year lapse period proposed, and the possibility construction may not commence until the end of that period, and their role in management of construction effects at that future time, I support those management plans being prepared at a time closer to commencement of construction, rather than 6 months after confirmation of the NoRs as recommended by Mr Quigley.

In my opinion the Mana Whenua Partnership Forum should begin earlier, to ensure involvement in Project design. Engagement needs to be stronger and broader in its approach to stakeholders, however I consider the SCEMP and DRMP are construction process management plans, and not a community redesign of the Project. The Project redesign I recommend, at NoR stage, is the reducing of batter slope land takes at the edges of the NoRs by more general use of retaining walls. That was requested by many of the submissions. Such an approach will not be appropriate in all cases, for example where the road is adjacent to a park or a retaining wall would have excessive shading or CPTED or traffic safety effects, but in general it would leave more of adjacent sites for their continuing operation. The NoR area needed for construction will still exceed the area needed for operation of the BRT Project post-construction.

I am not proposing to include loss of right hand turns across corridors, although accept a need to address mid-block connectivity for pedestrians and cyclists. I am not proposing to include post-construction on-site parking as that will be a matter for mitigation (by NoR extent minimisation) and compensation, and possibly injurious affection claims. Construction effects on on-site parking will be addressed within the SCEMP and DRMP and site-specific construction management plans. I am not proposing to include loss of on-street parking as I consider that roadway repurposing is a function of the road controlling authority, however the NoR design will need to address access and mobility parking associated with Hayman Park (Davies Avenue).

A number of right-hand turns from properties and intersecting streets will be lost with the BRT median becoming more continuous. I do not agree with Mr Quigley that the loss should be mitigated beyond the provision of loop roads and proposed retained intersections to minimise the additional travel distances. The maximum diversion or additional distance proposed by the Applicant is 2.5km. That will only apply to either the egress from or access to the property on a round trip as the other leg will be an unrestricted left turn. It will mean some severance, as some desired destinations will become less convenient to access. Some of the more complex and intensive business sites will have signalised intersections to retain their access across the road.

I do not agree with Mr Quigley that mitigation is required for loss of on-site and on-street parking. There is currently no on-street parking on most of the arterial roads. NoR2 has 117 on-street parking spaces lost which typically serve parks, retail / commercial centres and school pick-up/drop-off areas, NoR3 has 21 parking spaces lost in residential streets.

I do not agree that exposure to noise, vibration and/or dust that does not exceed the standards but is otherwise judged to have a negative amenity impact, should be included in the DRMP. This includes properties not acquired by the Applicant but now exposed to greater amenity impacts due to removal of other buildings/structures. The standards are intended to set acceptable limits, although do not guarantee there will be no effect. The Applicant is not seeking discharge to air consent for dust and will need to manage dust to ensure it does not become a nuisance. Construction noise and vibration is to be managed by a CNVMP.

The access lanes running parallel to Te Irirangi Drive, to be re-constructed, may in some cases be used currently for on-street parking, however they were designed as one-way lanes to link to the arterial road or in some cases back streets. The application plans, and ATE and UDE do not show detail of the lanes' re-construction so I have not yet been able to determine if they will still have an on-street parking capacity. However, there appears to be sufficient space to replace the current single traffic lane and parking lane configuration, although possibly without a second footpath at property frontages. The zoning of the land adjacent to the lanes supports intensive residential re-development, which may include more dwellings than could reasonably rely on a resource of on-street parking.

On-site parking may be disrupted during construction, and I agree there needs to be some mitigation of that, possibly by temporary parking areas. However, the permanent loss of on-site parking will need to be compensated through the property acquisition process, and possibly involve injurious affection claims. The Applicant considers that the provision of frequent and rapid transit networks will support a reduction in the overall need for on-site carparking.

Operational severance needs research and assessment. The UDE proposes many mid-block crossings for active modes, as opportunities if not existing, and the ATE proposes lowering the speed limits on the roads to make them more permeable. Loss of many of the existing right-hand turn opportunities across the roads will certainly exacerbate severance for users of private vehicles, even to the extent of making certain retail and community facility destinations less convenient, prompting changes of patterns of use, but the Project should be able to provide good active mode connectivity.

In relation to inserting a BRT station at Manukau Memorial Gardens, which has been recommended by Mr Quigley (Social) and earlier by Ms Mein (Urban design), and the Ōtara Papatoetoe Local Board, I recommend that the NoR4A and 4B ensure that there is sufficient land available within the designations to accommodate a Manukau Memorial Garden Station as 'future-proofing'. The decision on whether to build a particular station and confirm its location and timing is likely to be made at the OPW stage.

I have attached Mr Quigley's Condition recommendations tracked changes to his Technical Memo (Social) in Appendix 1. However, I have not supported his full recommendations into my Suggested Condition Sets in Appendix 5.



#### 4.4.11 Property, land use, business and other effects

##### Application

##### **A2B PROPERTY, LAND USE, BUSINESS AND OTHER EFFECTS**

AEE section 9.7 discusses property effects. Te Tupu Ngātahi considers potential adverse effects on existing private properties and businesses have been reduced, where practicable through the development of the Project concept design and the proposed designation boundary. Notwithstanding this, there is a strategic need to protect the Project corridor to address the existing and future demand for public transport in the southern and eastern areas of Auckland.

Where impacts on properties and businesses cannot be avoided, the potential effects are discussed in AEE sections 9.7(Property) and 9.5 (Social Effects) and detailed in the SIA.

Te Tupu Ngātahi states that the proposed A2B NoRs require land to provide a sufficient footprint to enable the construction and operation of the Project.

The land required for the Project is shown in the General Arrangement layout plans included with the NoR. Land required for the permanent work will be acquired prior to construction. Following the Completion of Construction, the designation boundary will be reviewed and any land that is not required for the permanent work or for the on-going operation, maintenance or mitigation of effects of the Project will be reinstated in coordination with directly affected landowners or occupiers.

This will include:

- Reinstatement of construction areas and reintegrating with the surrounding landform;
- Reinstatement of driveways, accessways, fences and gardens; and
- Integration of batters and cut/fill slopes with the landscape.

These matters will be discussed prior to or during construction with directly affected landowners and will follow the provisions under the Public Works Act 1981 which is a process separate from the requirements of the RMA.

##### **Submissions**

Submissions have been received on the following property matters:

- General relief to decline the NoRs, and compensation requests (Project-wide);
- Further information, engagement and consultation on the Project (Project-wide);
- Extent of the NoRs, including effects on specific properties identified by submitters (Project-wide);
- Impose shorter lapse periods for the Project (reported in the Lapse Period section of this report); and
- Effects on infrastructure (Project-wide).

Where submissions have raised matter specific to a topic area, such as transport (e.g. vehicle access or construction noise and vibration), these have been assessed in relation to the relevant topic area above. These are:

- Effects on vehicle access (refer section 4.4.1 Transport effects)
- Construction noise and vibration effects (refer section 4.4.2 Construction noise and vibration effects)

### **Specialist Assessment**

No specialist assessment has been sought for property, land use, business and other effects.

### **Planning Assessment**

My planning assessment is focussed on the following matters:

- General relief to decline
- Retaining walls v batter slopes
- Buildings affected
- Spatial extent of the designations (EXTENT)
- Buffering houses removed
- Property value and land acquisition
- Zoning and surplus land
- Project scope
- Business effects
- Compromised activities
- Infrastructure.

### **General relief to decline the NoR**

In relation to submissions requesting to decline the NoRs, I consider that the Requiring Authority has adequately demonstrated the need for the Project and in particular NoR2 and NoR3 along Puhinui Road to which the submissions relate in particular where the residential land and house take is relatively high. In relation to compensation requests, I note that this is a matter for Te Tupu Ngātahi to address during the detailed design of the NoRs, in accordance with processes under the Public Works Act 1981. In my view, the proposed amendments to the SCEMP conditions will enable affected parties to have meaningful input into the detailed design of the management plans and construction planning.

### **Effects on specific properties identified in submissions**

In relation to effects on specific properties, I generally consider that the Requiring Authority has demonstrated reasonable necessity for the Project and that adequate consideration has been given to alternative sites, routes and methods, except for the edge conditions of batter slopes or retaining walls.

### **RETAINING WALLS GENERALLY PREFERRED OVER BATTER SLOPES**

The Project redesign I recommend, at NoR stage, is the reducing of batter slope land takes at the edges of the NoRs by more general use of retaining walls. That was requested by many of the submissions. Such an approach will not be appropriate in all cases, for example where the road is adjacent to a park or a retaining wall would have excessive shading or CPTED or traffic safety effects, but in general it would leave more of adjacent sites for their continuing operation. The NoR area needed for construction will still exceed the area needed for operation of the BRT Project post-construction.

There is a group of submissions concerned about the use of batter slopes rather than retaining walls at the NoR edges, as batter slopes take up more land from the property frontages. Those submissions are mainly reported under the Property Effects – Extent – Retaining sub-topic. It is particularly relevant to business land, where high proportions of site area are in active use, but also affects the buildable and outdoor space land area on residential sites. The Urban Design Technical memo and the Landscape Technical memo, and the Kāinga Ora submissions discuss negotiations with the property owners on batters and low retaining walls, and decisions on batters and retaining walls made at Outline Plan stage. However, I consider those consultations should occur in relation to setting the NoR boundary and extent of designation, as they can influence the extent of land take as well as the future works extent. Certainly, the RA needs to justify the extent of the land take proposed.

In relation to one submission, it appears the earlier batter slope edge design has been converted to a retaining wall, but the extent of land needed by the NoR for those batters has not been reduced to accommodate only the retaining wall. NoR2-40 Michael Sheridan (Van den Brink 652 Ltd) at 654 Great South Road and 5 Te Irirangi Drive, states that the batters previously shown along the northern site boundary have been changed to a retaining wall in the lodged documentation. This is supported as it results in less permanent impact on the site. However, given the extent of works has been reduced, the submitter questions whether the extent of the designation could be reduced accordingly. The submitter seeks clarity and assurance that access through this part of the site can be maintained for deliveries during works and that the number of carparks affected during construction works is minimised.

## **BUILDINGS AFFECTED**

As an example, the three adjacent attached or terrace houses at 4, 6 and 8 Noel Burnside Road are all shown as within the NoR3, however only the northernmost part of 4 Noel Burnside Road is shown as needed after the construction works. It may be that the RA approach to NoR boundary involves taking a whole building if a part or whole of a house is needed for the construction works, and includes attached housing blocks even where not all of the residential units are touched by the works. If so, then a structural building assessment and proposed building alterations of such sites could possibly allow a more restrained extent of NoR. In some cases, the buildings and sites may be tied together by cross-leases or unit titles or have common area tenure that means the whole site must be taken if the works are to proceed even in only part of it.

In addition, I consider that the CEMP, CTMP, CNVMP, DRMP and SCEMP conditions, as proposed to be amended in Appendix 5 to this report, provide a robust framework for mitigation of adverse effects and consultation with directly affected parties when the detailed design of the Project has been confirmed.

## **Submissions on EXTENT**

### **GENERAL RELIEF TO DECLINE OR WITHDRAW AN NOR OR THE NORs**

In relation to submissions requesting to decline or withdraw the NoRs, I consider that the Requiring Authority has adequately demonstrated the need for the Project, and adequately evaluated alternative routes and methods for the Project. In relation to compensation requests, I note that this is a matter for Te Tupu Ngātahi to address during the detailed design of the NoRs, in accordance with processes under the Public Works Act 1981. In part due to the relatively long lapse period proposed, of 15 years, the NoRs may have a significant effect on property values and the ability to sell affected properties, so some properties may need to be acquired early.

EXTENT submissions have also been reported within the specialist urban design section, for their urban design effects. They are reported here within the property effects section for their effects on property, so there is some duplication of commentary. This property section makes reference to the Unitary Plan notice of requirement maps and the Applicant's General Arrangement Plans, in relation to some individual property submissions. For most of the specific submitter addresses affected there is a Plan or Map excerpt in the Summary of Submissions Appendix 3, searchable by NoR, submission number and name.

Submissions summarised in the Extent category have the following concerns:

How much land will be taken?

Requests to move the extent of the nor from a property

Extent exacerbated by batter slopes rather than retaining walls – take minimum

NoR4A SH20b / Puhinui Road frontage extent

Extent removes buffering front houses, carports and front yards

Extent in relation to 18 Ronwood Avenue apartment building

Extent – no land take

Extent – project scope.

**HOW MUCH LAND WILL BE TAKEN?**

A number of submitters required further information, particularly a description of the effects of the NoR on their property, and how much land would be taken for the Project.

Xu Yajun NoR1-01 How much land will be taken?

Form 18, the application form for each NoR, has an Attachment B – Schedule of Directly Affected Properties, which lists the Property ID; Address; Title Number and Legal Description; Approximate area of land to be designated on that property (m<sup>2</sup>) and the Sheet Number.

For submitter Xu Yajun NoR1-01 at 18 Srah Place, the NoR1 Form 18 Attachment B – Schedule of Directly Affected Properties has the following entry:

Property ID	Address	Title Number	Legal Description	Approx. land to be designated (m <sup>2</sup> )	Sheet No.
627311	18 Srah Place	NA132D/595	Lot 311 DP 204153	18	2

NoR1 Form 18 Attachment A – Designation Plans Sheet 2 is a map showing the properties and the proposed designation boundaries, with the Property ID referencing the proposed designated part of 18 Srah Place, as follows (excerpt)(note the map is not aligned with North upwards, but rotated to fit the page). 627311 identifies the 18m<sup>2</sup> required from 18 Srah Place:

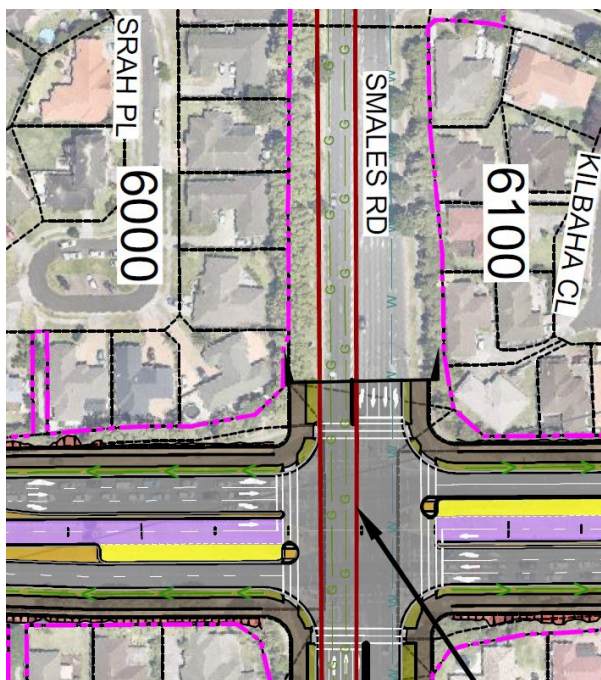


The Unitary Plan maps are searchable by address, and if '18 Srah Place' is searched the map zooms in on the property and provides a list of Unitary Plan information about the property, including whether there is a Notice of Requirement (NoR) or Designation applying to the property. If that NoR is selected the map will show in red shading the extent of the designation. If there is no Designation or NoR listed against the address searched, then it cannot be selected to turn on the red shading. In order to show the extent of the Designation or NoR near those properties, search the address of a nearby property that is directly affected, select the NoR and the map of the area will show the whole red shaded NoR.



Excerpt Unitary Plan Map showing NoR1 affecting 18m<sup>2</sup> of 18 Srah Place along northern frontage to Smales Road.

The NoR1 General Arrangement Plans lodged with the application show general nature of the proposed works and the proposed designation boundary in magenta. They show the works as bus lane, station, general traffic lane, stormwater swale and pond device, walkway, cycleway, berm, and cut (red) or fill (green) batter slopes at the NoR boundary, as follows:



Excerpt NoR1 General Arrangement showing NoR1 affecting 18m<sup>2</sup> of 18 Srah Place along northern frontage to Smales Road, to tie in the berm and walkway/cycleway at the intersection with Te Irirangi Drive.

For each submission which refers to the extent of NoR in relation to a particular address, I have prepared a version of the Summaries of Submissions, with expandable thumbnail excerpts from the Unitary Plan mapped NoR and the General Arrangement Plans, as shown above in relation to 18 Srah Place, Xu Yajun NoR1-01. During the notification submission period I prepared a number of these map excerpts in order to respond to public enquiries for information about how specific properties were affected.

The General Arrangement Plans are indicative rather than detailed design, but submitters requesting further information on design and access and their properties would be able to gain a general understanding of the proposed works from those plans. For some of the General Arrangement Plan excerpts in this report I have marked the submission property with a red circle, to assist in identifying the property being discussed. For most of the specific submitter addresses affected there is a Plan or Map excerpt in the Summary of Submissions Appendix 3, searchable by NoR, submission number and name.

### **REQUESTS TO MOVE THE EXTENT OF THE NOR FROM A PROPERTY**

Kawaljeet Singh NoR1-02 (actually NoR2) at 53 Te Irirangi Drive says "*Take the park across the road, not my land*". Part of 53 Te Irirangi Drive is required for the Project, including almost all of the front yard, and also parts of Manukau Sports Bowl, the park across the road, for construction area and stormwater pond.

Balwinder Singh NoR1-05 States that they do not want to leave their house. Their house at 13 Brittas Place is one house back from Te Irirangi Drive, and it is 15 Brittas Place that fronts Te Irirangi Drive and is included in the NoR. There will probably be construction effects on the residents of 13 Brittas Place, but they should not have to leave their house.

Mr Aisea Sasalu NoR1-11 (actually NoR2) at 71 Te Irirangi Drive, opposes the NoR extent, saying it is a family home for 50 years, for his elderly father, and wants to know if it is possible to save the home. The General Arrangement Plans show all of 71 Te Irirangi Drive and the two properties to the west, 69 and 67 Te Irirangi Drive, are required for a stormwater management raingarden/wetland/pond.

Danny Charanjit Singh NoR1-17 AND NoR2-64 (actually house at NoR2 but pedestrian overbridge to be removed is in NoR1) at 1 Belinda Avenue, says: "Do not take my property. Use the central median only for the Busway, and do not widen Te Irirangi Drive. Leave the existing pedestrian overbridge as it is needed and well-used." The General Arrangement Plans show 1 Belinda Avenue and its neighbour 3 Belinda Avenue are required for a stormwater management raingarden/wetland/pond and the cut batter slopes around its perimeter. The pedestrian overbridge is being removed for safety reasons, and the traffic speeds on Te Irirangi Drive are to be reduced to make crossing safer.



Mr Modher Adnan Abdulrazak Barakat and Mrs Yessar Ahmed Ali Barakat NoR1-20, who have a house in Franco Lane, object to the NoR extending into re-purposing Franco Lane for walkway and separated cycleway, saying the Project should be a busway alone. As the BRT busway will run along the central median, the provision of walkway and separated cycleway and stormwater management infrastructure and berms would require more space than the existing Te Irirangi Drive road reserve allows. Mr and Mrs Barakat have other concerns on Access, Traffic, Parking, Construction noise and vibration, Residential amenity and whether Auckland Transport has authority to undertake the full Project, and those concerns are reported elsewhere in this s42A report.

Samir Chalabi NoR1-24 at 4 Sheddings Lane says: “Do not widen Te Irirangi Drive. Need to continue to live here.” Taruna and Saurabh Tiwary NoR1-25 at 6 Sheddings Lane also oppose the extent of the NoR1. Sheddings Lane is one of the slip lanes parallel to Te Irirangi Drive, which limit the number of access points onto Te Irirangi Drive. The properties at 4 and 6 Sheddings Lane are not within the NoR1 and have no land taken, but the Lane itself will be re-constructed along with Te Irirangi Drive to accommodate separated walkways, cycleways, stormwater infrastructure and berms, and a new Sheddings Lane for access to properties. These lanes currently are one way and have sufficient space for some on-street parking. It is difficult to tell from the General Arrangement Plans how the new lane cross-section will appear, and whether they will have space for their own footpaths and parking, but it is clear the proposed designation will not extend onto 4 or 6 Sheddings Lane.

Samantha Searle NoR1-29 at 14 Wando Lane, is concerned at the extent of the NoR1 across Wando Lane. She considers the Project should be constrained to just a rapid transit busway, from Botany to Auckland Airport, for rapid transit, not for walking and cycling.

Parvinder Singh NoR3-04 and Ronil Prasad NoR3-05, both at 14/83 Puhinui Road which is within NoR2, do not want to be affected by the NoR and seek that it be withdrawn. The Unitary Plan aerial photo and NoR map and the General Arrangement Plans show the proposed designation extending onto 83 Puhinui Road (property apartment complex recorded as 97 Fitzroy Street) and the removal of the front block of apartments for the Project.

Hsin Mila Cheung Tsai NoR3-08 re 192 Puhinui Road, says: “Only take land required for Project; Justify the area of land shown as needed.” And seeks modification of the NoR3 to minimise land take. The entire property is within NoR3, but the General Arrangement Plans show only the front part of the site will be needed after construction. There is a fill batter slope proposed at the new front boundary, and that may make vehicle access to the remnant site more difficult. The RA should be asked to justify the extent of the land take and to consider alternatives to minimise the land take.

John Hansford NoR3-10 at 138 Puhinui Road, rejects the NoR3 and seeks its withdrawal. NoR3 extends over the whole of the property at 138 Puhinui Road, although only the front third of the property (including the house) is within the area of works.

## **EXTENT EXACERBATED BY BATTER SLOPES RATHER THAN RETAINING WALLS – TAKE MINIMUM**

National Mini Storage Limited NoR1-21 seeks that all infrastructure is to be contained within the existing road reserve, with no encroachment onto the Submitter's site, and that all batters and earthworks are to be designed in consultation with property owners to minimise impacts. This is one of a group of submissions concerned about the use of batter slopes rather than retaining walls at the NoR edges, as batter slopes take up more land from the property frontages. It is particularly relevant to business land, where high proportions of site area are in active use, but also affects the buildable and outdoor space land area on residential sites. The Urban Design Technical memo and the Landscape Technical memo discuss negotiations with the property owners on batters and low retaining walls, and decisions on batters and retaining walls made at Outline Plan stage. However, I consider those negotiations should occur in relation to setting the NoR boundary and extent of designation, as they can influence the extent of land take as well as the future works extent.

Paul Street NoR1-45 is concerned that the proposed extent of NoR widening Te Irirangi Drive will substantially affect the operational viability and value of the (commercial) property. The current site allows for vehicle access around the office complex to the roller doors on the eastern side of the warehouse. The submitter is concerned that the proposed reduction of 800mm and any associated batter will mean that trucks and delivery vehicles will no longer be able to access the eastern side of the building and severely diminish the commercial viability of the facility. If the extent of the NoR were reduced, by a retaining wall rather than a batter slope and/or combining the cycleway and walkway for a stretch past the site, the effects on the operation of the site would be greatly reduced.

SPG Manukau Limited NoR2-09 is concerned at the extent of the NoR2 widening of Lambie Drive including batter slopes rather than retaining wall, and for the maintenance of two existing two-way site accesses. Submitter considers resource consents for three new businesses including drive-through food and beverage are compromised. Seeks that the NoR2 alignment should be extended westwards to provide a signalised intersection for Gilmours and the submitter. The General Arrangement Plans show a fill batter slope along the western boundary of the submitter's site, which could be reduced by a retaining wall alternative, and the access arrangements to and from Lambie Drive will be changed. Existing resource consents are part of the 'existing environment', in determining the effects of the NoR.

Legends Property Limited NoR2-18 at 1/186 Te Irirangi Drive opposes the loss of land to the extent of the NoR2, with unacceptable effects on the business and operation of the site. The NoR2 boundary removes an area for construction along the frontage, which is currently used for carparking and vehicle manoeuvring, and then pulls back to a small cut batter slope at the new road frontage. In my opinion it may be possible to use a retaining wall along the frontage boundary to reduce the land take and protect the operations of the site.

Ormiston Centre Ltd NoR2-20 (actually NoR1) oppose the extent of the NoR and seek that the land take is reduced to the minimum necessary for the Project. Submitter considers existing resource consents and private plan change opportunities are adversely affected, and they need to retain existing access points with right-hand turns into site. The right-hand turns into the site appear to be from Ormiston Road, with a continuous planted median along Te Irirangi Drive. The General Arrangement Plans show a land take along the Te Irirangi Drive frontage and around into Ormiston Road. The land taken within the NoR1 appears to be shown as used for cut and fill batter slopes along the frontage, rather than as part of the berm or walkway/cycleway.

Michael Sheridan (Van Den Brink 652 Limited) NoR2-40, in relation to 654 Great South Road and 5 Te Irirangi Drive (including a Countdown supermarket), opposes the extent of the proposed designation, stating: "The batters previously shown along the northern site boundary have been changed to a retaining wall in the lodged documentation. This is supported as it results in less permanent impact on the site. However, given the extent of works has been reduced, the submitter questions whether the extent of the designation could be reduced accordingly. The submitter seeks clarity and assurance that access through this part of the site can be maintained for deliveries during works and that the number of carparks affected during construction works is minimised. That consideration be given to whether the extent of the designation area could be reduced to minimise impact on the subject site, noting that the extent of land proposed to be incorporated for construction works, but not for the actual infrastructure, is quite wide."

As reporting planner, it appears to me that the actual works area has been reduced by changing from batters to retaining wall, but the originally needed construction area to form the batters may not have been reduced in the lodged NoR2 documentation. The RA should be asked to justify the land area required by the NoR2.

Deanna Self NoR2-41, in relation to 652 Great South Road (including a Caltex service station), opposes the extent of NoR2, as the boundary of the designation along Great South Road is shown along the edge of the roof of the service court with a proposed pedestrian and cycle path and berm likely to be located between the current site boundary and the edge of the service court roof. Therefore, the existing access areas, infrastructure and signage within that part of the site will be temporarily or permanently affected by the NoR2. The submitter seeks that consideration be given to whether the extent of the designation area could be reduced to minimise impact on the subject site.

The General Arrangement Plans show a proposed retaining wall to the north of the site, but a cut batter slope at the corner of Great South Road and Te Irirangi Drive. It is possible the operation of the Caltex site could be maintained with a different design of the corner boundary. The submitter has other submission points on Access and Other construction effects, which are reported on elsewhere within this s42A report under those topics.

Chalmers Properties Ltd NoR2-47, in relation to Ronwood Centre at 1 and 5 Ronwood Avenue, opposes the extent of NoR2, stating: "There does not appear to be a logical rationale for the extent of the designation boundary, which, in many locations, extends far beyond the anticipated extent of works. The proposed extent of the designation boundaries is unnecessary and has the consequential effect of unduly restricting the future development potential of a significant portion of land owned by Chalmers Properties because no person may do anything in relation to the designated land without the written consent of the requiring authority as section 176 of the RMA would apply. This does not represent the sustainable use and development of natural and physical resource, will not meet the sustainable management purpose of the RMA." The submitter seeks that the extent of the designation boundary of NoR2 be reviewed and reduced; and that Schedule 1 of the proposed conditions of NoR2 be amended following review of the use of the extent of the designation boundary. The Unitary Plan maps and the General Arrangement Plans show the NoR2 extending approximately 3.5m into the southern frontage of the site, affecting the carparking layout.

David Gell (Mitre 10 Holdings Limited re 61 Lambie Drive) NoR2-56 opposes the extent of the land take associated with the NoR2 as it affects land owned by Mitre 10, stating: "As it affects 61 Lambie Drive, the NoR2 includes a land take of approximately 1,900m<sup>2</sup> along the eastern edge of the site fronting Lambie Drive. The NoR2 as it affects the site does not appear to be required for widening of the existing carriageway, but is to be used to provide a fill batter slope and residual land. Mitre 10 has been advised that the residual land is to be handed back following completion of construction works, though this does not appear to be specified in the NoR2." The submitter seeks that the extent of NoR2 as it affects 61 Lambie Drive be reduced such that the only part of the site affected by it is that part of the site required to form a signalised intersection; OR that the NoR2 be amended such that that any land taken within the site will be temporary and for construction purposes only, except that land required for the establishment of the signalised intersection.

The General Arrangement Plans show a fill batter along the Lambie Drive frontage (and a cut batter on the other side of the road). It may be possible to reduce the extent of the designation if some retaining wall is used rather than batter, the construction works may not need the whole NoR area if the construction proposed changes to a retaining wall, and after construction more of the site can be returned to operational use. The RA should be asked to justify the area of land to be designated and to consult the landowner on construction options to reduce the area to be designated and/or the area needed for construction works.

Centuria Capital (NZ) Limited NoR2-59, at 1/55 Lambie Drive (Bunnings as a tenant), opposes the extent of the Property required for the designation and the effects on the ongoing operation of the retail activity located at the Property. The submitter seeks that the NoR2 boundary be modified to not include existing carparks. The submitter has other submission points on Access; Parking; Flooding; Lapse period; and Alternatives, and those are reported on elsewhere in this s42A report under those topics. The General Arrangement Plans show a fill batter along the eastern frontage of the site. It may be appropriate for the RA to consult with the landowner on retaining wall options rather than a batter slope, to be able to return more of the useable part of the site after construction, as long as a retaining wall in that location would not have adverse traffic safety implications.

Kāinga Ora Homes and Communities (Kāinga Ora) NoR1-41, NoR2-76, NoR3-35, NoR4A-15, NoR4B- is concerned that more land is being designated than is needed for the Project. This includes taking whole sites when only part is needed for the Project works, and the design of the Project which uses more land than is needed to provide the BRT and associated walking/cycling and stormwater infrastructure. A number of Kāinga Ora-owned sites and part sites are directly affected by the A2B NoRs, but I understand the concern is more generally about the efficient use of land for housing and the loss of existing homes. The Kāinga Ora submissions also have submission points on Urban design, Flooding, Need, Construction noise and vibration, Operational noise, and Project scope, and those are reported on elsewhere in this s42A report under those topics.

Quadrant Properties Ltd NoR2-73 and NoR3-32 is the Property manager of 285 Puhinui Rd, 305 Puhinui Rd; 307 Puhinui Rd; 7 Ronwood Ave; 9 Ronwood Ave. The submitter is concerned that the Requiring Authority is designating more land than required. Large parts of the Submitters properties are proposed to be designated; however, this does not appear to be required for the proposed physical works themselves. Given the designation is proposed to be in place for 15 years, and given the boundaries are likely to impact existing and future development along the Project alignment for some time, the submitter considers that designating this extent of land would compromise urban development and is not an efficient nor effective use of land. The submitter seeks that the designation boundaries are amended so that there is no encroachment of the submitter's property boundaries including by physical infrastructure, and all physical infrastructure including but not limited to bus ways, traffic lanes, cycle lanes, footpaths, berms, are contained within the existing road corridor; If unavoidable, that any earthworks and battering extents beyond the existing property boundary are to be designed in consultation with the relevant property owners to minimise any impact to private land, and maintain the same utility of the said land; That the designation boundaries are amended to align with the above.

Satnam Bhatt NoR3-39, at 3/266 Puhinui Road, opposes the extent of NoR3, the impact on residents and the wellbeing of their children, over-provisioning of the Project and impacting the vast green space, de-homing a lot of families, and seeks the use of retaining walls to reduce land take. A large proportion of the front yard at 226 Puhinui Road is shown as needed for the construction and the Project.

NoR1-47A East Tamaki Investments Ltd 360 Te Irirangi Drive considers the NoR has not sufficiently justified the amount of land needed from the site frontage to Te Irirangi Drive, nor the need for a separated cycleway. The submitter considers there should be a shared path rather than separated walkway / cycleway along the Te Irirangi Drive frontage, to reduce the land take. Existing stepped retaining walls along the frontage to Te Irirangi Drive frontage are shown in the General Arrangement Plans as being rebuilt further back in the site and extending along the full length of the site frontage.

NoR1-47B Beale Partnership 350 Te Irirangi Drive considers the NoR has not sufficiently justified the amount of land needed from the site frontage to Te Irirangi Drive (3.5 to 5m deep), nor the need for a separated cycleway. The submitter considers there should be a shared path rather than separated walkway / cycleway along the Te Irirangi Drive frontage, to reduce the land take. An existing retaining wall (up to 3m high) along the southern part of the Te Irirangi Drive frontage is shown in the General Arrangement Plans as being rebuilt further back in the site and extending along the full length of the site frontage.

NoR1-48 Howard Properties Ltd (4 Beale Place) Land is taken from the Te Irirangi Drive frontage, but although the works round the corner to tie in to Accent Drive there is no land taken from the site's Accent Drive frontage. The General Arrangement Plans show a retaining wall to be provided along the Te Irirangi Drive frontage, to minimise the land take. I have recommended that treatment as a general approach for other sites, rather than batter slopes. The submitter considers there should be a shared path rather than separated walkway / cycleway along the Te Irirangi Drive frontage, to reduce the land take.

### **NOR4A SH20B / PUHINUI ROAD FRONTAGE**

The main submission issues along NoR4A SH20B / Puhinui Road are the extent of land required and concerns about access to and from properties.

Niksha Farac (Tunicin Investments Limited 420 Puhinui Road and Airface Limited 440 Puhinui Road) NoR4A-01 states that the Project does not need so much land; They are trying to establish a four-way intersection opposite Manukau Memorial Gardens entrance. They identify that the Project needs to make provision for a 10m landscape yard and the Puhinui Heritage Gateway. The Project needs relatively extensive land here as the BRT changes from central-running to southside-running, along the southern side of SH20B/Puhinui Road. Along some stretches there are extensive cut and fill batter slopes to join the Project area back into adjacent land. On the General Arrangement Plan excerpt, 420 Puhinui Road is opposite chainage 2400 and 440 Puhinui Road is opposite chainage 2200.

Alan James Steele NoR1-03 at 436 Puhinui Road (behind 440 Puhinui Road) wants to retain existing full access to and from Puhinui Road, and seeks a central-running busway so as to allow his site full access. 436 Puhinui Road also has a frontage to Prices Road, which I understand is to be converted to a cul-de-sac without direct access from Puhinui Road, and connected to Campana Road through Auckland Airport land and on to an intersection with Puhinui Road / SH20B.

Altrend Properties Limited NoR4A-04 & NoR4B-20 (owner of 67 hectares of greenfields industrial land) had planned on a 40m road widening, now up to 70m is proposed. They consider there is a lack of detailed design to support the extent of road widening, and there will also be adverse effects on consented and constructed stormwater management devices. Altrend seeks modification of the NoR to address those concerns.

New Zealand Storage Holdings Limited NoR4A-07 (402 and 408 Puhinui Road, opposite Manukau Memorial Gardens) states that the extent of NoR4A is greater than the 40m set-back earlier proposed, including 10m landscaping yard for accommodation of the Puhinui Heritage Gateway, that already applies to NZSHL's land to provide for future possible transport requirements in accordance with the Puhinui Precinct provisions. The NoR4A additionally does not appear to recognise or make provision for this 10m landscape yard. The submitter considers the potential effects of NoR4A on NZSHL's landholdings are therefore additionally onerous.

It is unclear what effect NoR4A will have on the existing vehicle access from SH20B to NZSHL's land. The ATE states that "*no significant changes are proposed to individual property access other than changes to the access layout*". However, in the General Arrangement Plan, the proposed bus rapid transit corridor, walking and cycling path alignment, and road berm runs directly in front of the existing access to NZSHL's land. The submitter considers NoR4A is therefore ambiguous as to how the existing vehicle access to NZSHL's land will continue to be provided. NZSHL is interested to ensure that appropriate access continues to be maintained to its landholdings and considers that further assessment and information on this matter is required.

### **EXTENT REMOVES BUFFERING FRONT HOUSES, CARPORTS AND FRONT YARDS**

Heather Haylock NoR1-26; NoR2-53; NoR3-26; NoR4A-09; NoR4B-4 is concerned at the extent of the NoRs where existing houses are buffered from road effects by road-fronting houses which are to be removed. This applies across NoR1, NoR2 and NoR3, most commonly in NoR2 and NoR3 along Puhinui Road. The submitter considers that the surplus frontage land after construction should become a ribbon park rather than be redeveloped. However, in my opinion, redevelopment of that frontage land for residential or business use could reinstate the buffering of the rear houses. The submitter has other submission points on Operational noise and vibration; Zoning; Other construction effects; Consultation and engagement; Flooding; Property value and land acquisition; Alternative; and Surplus designated land, which are reported on elsewhere within this s42A report under those topics.

Phisan Charoenmongkhonwilai NoR1-28 (actually NoR2) and NoR2-57, at 3/146 Puhinui Road, is neutral on the NoRs, but has requested to be informed about every stage of decision-making as it affects the property. General Arrangement Plan shows entire 3 unit site is within the NoR, but only the front unit is physically within the finished works. It is not clear if the middle and rear units can be salvaged from construction, but the NoR proposes to designate the whole property 146 Puhinui Road.

Tasman Accounting Trustee Ltd Attn: Mark and Marta Stevens NoR1-35 (actually NoR2) at 54 Te Irirangi Drive, are concerned at the extent of the NoR2. They are concerned that they will lose some of their land. They are also concerned that the land not used at 56 Te Irirangi Dr (their road-front neighbour) could be land banked by AT for future widening of the corridor, further reducing peace and quiet and amenities at the property. The submitter's property is a rear site, behind 54 Te Irirangi Drive, and part of their driveway is within the NoR extent. The front property at 56 Te Irirangi Drive is required for a fill batter slope that extends across the existing house but does not use the entire property. It looks to me as though there would be a buildable site remaining at 56 Te Irirangi Drive after Project construction.

Pengxiang Huang NoR2-02 concerned at the extent the NoR2 comes on to his property (I think 192 Puhinui Road), and seeks reasonable compensation. The NoR2 extends over the front yard and part of the carports at 192 Puhinui Road.

Ram Chandar NoR2-04, with NoR2 extending over the property at 180 Te Irirangi Drive, seeks removal of the NoR. The NoR2 extends over the whole of 180 and 180A Te Irirangi Drive, at the intersection of Te Irirangi Drive and Dawson Road. The submitter considers the Project is not needed.

Manjinder Singh Birk NoR2-05 (actually NoR3) at 186 Puhinui Road is concerned at the extent of NoR3, which takes the front section and house at 186 Puhinui Road, opposite Wallace Road. Rawandeep Kaur NoR2-06 (actually NoR3) at 186 Puhinui Road is concerned at the extent of NoR3 and says: "Leave property alone". The Unitary Plan maps and aerial photo show a vacant back half of the section, but the General Arrangement Plans show a house has recently been built on that back half. The NoR3 extends over the front house but leaves the back house outside the proposed designation boundary.

Aaron Chand NoR2-27 at 124A Puhinui Road identifies that 124A Puhinui Road is to be removed to allow build of infrastructure. He seeks removal of the NoR from his land; no construction to take place on his land. If Project goes ahead then he will need early property requisition and replacement. The General Arrangement Plans show almost the entire property taken for berm, walkway, cycleway and a batter slope edge.

Australasia Branch Office of Jehovah's Witnesses NoR2-29 requests information on the extent of the NoR and whether part of their land will be compulsorily acquired for this project. The address of Otara Congregation of Jehovah's Witnesses, Auckland the legal owners of the property, is located at: 65 Coachman Drive, Clover Park. This address is approximately 1.5km from Te Irirangi Drive and the Project. There is a Kingdom Hall of Jehovah's Witnesses in nearby Clover Park at 152 Dawson Road, and that property is affected by the NoR2, so I am presuming their concerns are there rather than at 65 Coachman Drive. They are neutral on the Project, but want to resolve concerns through the normal processes. The NoR2 extends across a corner of that site.

Australasia Branch Office of Jehovah's Witnesses NoR3-17 requests information on the extent of the NoR3 and whether part of their land will be compulsorily acquired for this project. They are neutral on the Project, but want to resolve concerns through the normal processes. The Jehovah's Witness church complex within NoR3 is at 222 Puhinui Road. The NoR3 extends into their carpark, but the General Arrangement Plans show most of that land is not needed after construction.



A number of submissions were received from the Mohanlals (on NoR2: Minakshi Mohanlal NoR2-36; Avisha Mohanlal NoR2-37; Abhisekh Mohanlal NoR2-68; Avisha Mohanlal NoR2-69; and on NoR3: Minakshi Mohanlal NoR3-22; Avisha Mohanlal NoR3-21; Abhisekh Mohanlal NoR3-30; and on NoR4A: Avisha Mohanlal NoR4A-05; Minakshi Mohanlal NoR4A-06; Abhisekh Mohanlal NoR4A-12), opposing the NoRs because the extent of widening of Puhinui Road will mean a loss of useful family space in the front yard. No A2B related physical address is given in the submissions, however Council advised me that a notification letter was sent to the Mohanlals at 86 Puhinui Road, so I am assuming that is the property affected. The submissions are identical. They also raise submission points on Traffic; Operational noise and vibration; Need for the Project; Flooding; and Alternatives, which are reported elsewhere in this s42A report under those topics. The NoR2 takes some of the front yard at 86 Puhinui Road, and the General Arrangement Plan shows Puhinui Road widened in front of 86 Puhinui Road for a BRT Station. It appears not all of the land taken will be required for the Project after construction is completed.

Mr Martyn Chalmers and Mrs Nurhayati Chalmers NoR2-58, of 84 Puhinui Road, oppose the extent of NoR2, stating: “NoR2 extends approximately 7m onto our land, making all of our lawn needed for vehicle access and manoeuvring (access previously moved west for intersection safety reasons)”. The General Arrangement Plans show a proposed BRT Station in front of 84 Puhinui Road, and part of the front yard of the property able to be returned after construction is completed.

Andrea Mead & Dr Stephanie Mead NoR2-71 at 2/2 Ihaka Place (and fronting Lambie Drive) are concerned that the extent of NoR2 over the property significantly impacts on their ability to use and enjoy their property both now and in the future. NoR2 means that the property cannot be developed to maximise the potential of the affected land, and significantly reduces the value of their property for a project that may never actually go ahead. The submitter has a number of other submission points on Trees, Access, Flooding, Operational noise, Residential amenity, Consultation and engagement, and Property value and land acquisition and those are reported elsewhere in this s42A report under those topics.

Eke Panuku Development Auckland NoR2-72 is concerned at the extent of the NoR2 onto Manukau Sports Bowl. The NoR2 proposes to designate approximately 8,145 m<sup>2</sup> of land within the Manukau Sports Bowl site for stormwater management purposes. The proposed stormwater management area is located within the south-eastern corner of the site on land that was identified, through the master plan process, for use as a play area, shared path and potential residential development in the future. Eke Panuku would be unable to implement the Master Plan and is particularly concerned about the adverse effects of the proposed stormwater management area, which include: loss of open space and associated recreation opportunities such as informal play, loop walks or community spaces; the location creates a direct spatial conflict with planned community facilities including the ‘children’s play hub’; reduced connectivity and access to the proposed wider walking and cycling network and to the surrounding neighbourhoods; and limit future residential development that would provide more housing in this location.

The Assessment of Flood Effects does not link the proposed stormwater management area to stormwater requirements or include any consideration of alternative sites or methods. Eke Panuku considers alternative options are available that would provide for appropriate management of stormwater effects while minimising impacts on the Manukau Sports Bowl site. The submission has other submission points on Urban design; Consultation and engagement; and Parking, and those are reported elsewhere in this s42A report under those topics.

Michelle Joy Te Hira NoR3-19, at Flat 2 93 Kenderdine Road is concerned that NoR3 extends too far onto the properties at 1/293 and 2/293 Kenderdine Road. NoR3 removes front of the properties, removes ability to park safely and securely, and will affect car insurance. NoR3 extent is hazardous for residents as brings traffic closer.

Mr Rajesh Kumar Sachdeva & Sunita Sachdeva & Ripul Sachdeva NoR3-29, at 26a and 1/26 Cambridge Terrace, oppose the extent of land required and will go to Environment Court and High Court to save it. They would be prepared to negotiate a 2 to 3m side yard take which is all that they consider is really needed for the project. They seek withdrawal of the NoR3 from 26a and 1/26 Cambridge Terrace OR a negotiated much smaller land take.

### **EXTENT IN RELATION TO 18 RONWOOD AVENUE APARTMENT BUILDING**

A number of submissions are concerned about the extent of NoR2 in relation to the apartment complex at 18 Ronwood Avenue, Renaissance Apartments, and the construction and operational effects of the Project on them.

Jude Manoharan NoR2-10 at 11E/18 Ronwood Avenue needs to know how close to the building the NoR2 and works and Project will come. The General Arrangement Plans appear to show the works coming close to the north face of the apartment building and include a fill batter slope. The batter slope could possibly be reduced in extent by a retaining wall, which might consequentially require underpinning of the building foundations.

Savitri Devendra NoR2-26 at 8A/18 Ronwood Avenue opposes the extent of the land take so close to the building and considers it could affect stability and structural integrity of building.

Renaissance Apartments Body Corporate 316863 NoR2-21 at 18 Ronwood Avenue seeks withdrawal of the NoR2 or at least reduction of the NoR extent to a minimum. The submitter is also concerned about: Inadequate consideration of alternatives; 15 year lapse period and no funding means NoR is premature and not reasonably necessary for achieving AT objectives; Loss or relocation of vehicle access, car parks, main pedestrian access, emergency vehicle and truck access; Further information required to understand effects and design mitigations; Construction noise and vibration excessive effects; Other construction effects on access, visual amenity, dust; Operational traffic noise effects if traffic is closer to apartments; Residential amenity adversely affected after construction. Those other matters are reported elsewhere in this s42A report.

The General Arrangement Plans appear to show the works coming close to the north face of the apartment building and include a fill batter slope. The batter slope could possibly be reduced in extent by a retaining wall at the new road edge, which may or may not consequentially require underpinning of the building foundations.

## **EXTENT – NO LAND TAKE**

Varinder NoR3-01 at 1/66A Puhinui Road does not want to be affected by the NoR, and seeks withdrawal the NoR, and asks “Is my property affected by it?” The NoR3 does not extend along Puhinui Road from the Lambie Drive intersection as far as 1/66A Puhinui Road, so there is no land taken. There may be construction traffic and noise effects on 1/66A Puhinui Road, from the works nearby.

Colin Brent Robinson NoR3-03 at 207 Puhinui Road seeks confirmation in writing that no loss of his land will occur. He also has concerns about ability to subdivide, needs to understand NoR effects, concern at dust/disruption/noise health effects and wants relocation during construction, consultation and engagement inadequate. He seeks provision of information to allow effects management. Mr Robinson’s land is not taken by the NoR3, but there are works proposed in front of and behind 207 Puhinui Road, including the BRT ramp up to the Puhinui Station concourse. I spoke to Mr Robinson by phone during the notification enquiry period, but he would like it in writing that his property is not taken for NoR3 or the Project.

KiwiRail Holdings Limited NoR3-20, supports proposed Condition 3 as offered, which requires that the designation extent and boundaries are to be reviewed following construction.

Alex Herkes NoR3-24 opposes the NoR3 as his property at 10 Noel Burnside Road is on the border of designation. He considers AT should use resource consents not NoR when a property is not fully within the designation. The Unitary Plan aerial and NoR map and the General Arrangement Plans show 10 Noel Burnside Road as lying outside the NoR. The three adjacent terrace houses at 4, 6 and 8 Noel Burnside Road are all shown as within the NoR3, however only the northernmost part of 4 Noel Burnside Road is shown as needed after the construction works. It may be that the RA approach to NoR boundary involves taking a whole building if a part or whole of a house is needed for the construction works, and includes attached housing blocks even where not all of the residential units are touched by the works. If so, then a structural building assessment and proposed building alterations of such sites could possibly allow a more restrained extent of NoR.

Maya Krishna Goundar NoR4B-03 (actually NoR2) at 104 Puhinui Road considers the Project will affect their place of living, and needs to know exactly how their address will be affected. The property is on the south side of Puhinui Road and no land is needed from the property for the Project. There will be construction disruption effects at the frontage.

## **EXTENT - PROJECT SCOPE**

An issue related to extent is project scope.

A number of submitters oppose the Project on the basis that the Project scope should be constrained to just a BRT busway from Botany to the Airport, without the new separated walkways, cycleways, stormwater infrastructure and re-purposing of the slip lanes parallel to Te Irirangi Drive and the consequential removal of so many street trees.

Paul Reyneke NoR1-30; Matthew Cheeseman NoR1-31; Maureen Irwin NoR1-32; Laura Unasa NoR1-33; Emerson Cheeseman NoR1-34 oppose the Project on the basis that the Project scope should be constrained to just a BRT busway from Botany to the Airport, without the new separated walkways, cycleways, stormwater infrastructure and re-purposing of the slip lanes parallel to Te Irirangi Drive and the consequential removal of so many street trees. They consider the project scope is for rapid transit, not for walking and cycling, and that including the walking and cycling would mean significant increase in project costs, an enormous reduction in trees and the urban ngāhere canopy coverage across this area, increased flooding risk and climate impacts, an increase in the urban heat and island effect, decreased visual amenity, loss of shade, decreased health and wellbeing to the public and decreased air quality.

These submitters seek to reduce the project scope to a rapid transit network - Airport to Botany running along the central median, which includes: a dedicated Bus Rapid Transit corridor centre-running along Te Irirangi Drive; Bus Rapid Transit stations at Smales Road, Accent Drive, and Ormiston Road – Botany Junction Shopping Centre; swales and wetlands; areas for construction related activities including yards, site compounds, and bridge and structure works. They oppose the inclusion of improved walking and cycling facilities along both sides of the corridor, and oppose the removal of trees lining both sides of the corridor along Te Irirangi Drive.

Kāinga Ora Homes and Communities (Kāinga Ora) NoR1-41 has concerns with the validity of the advice note associated with Condition 13 (UDLMP) which states that a front yard setback is not required from the designation boundary as the designation is not proposed for road widening purposes. Kāinga Ora considers that the proposal is, at least in part, for road widening to accommodate the Project. A designation cannot modify a rule in the plan, and Kāinga Ora expects that the Council is likely to require the front yard to be taken from the designated boundary which would potentially result in unintended consequences along the alignment of the Project, and compromise efficient land use and development along the Project's alignment. Without benefit of a legal opinion, I as reporting planner consider that the stated purpose of the Project is not for 'road widening purposes' even if that is part of its effect. The front yard rules along the NoRs are around 1.5m (THAB), 2.5m (MHU) and 3m (MHS), and less for business-zoned sites. Consent would be needed from the RA if building were proposed within the designation construction boundaries, which are more extensive than the future BRT operational boundaries. This effect could be considered part of the 'blighting' caused by a long lapse period and construction works needing a more extensive area than the finished Project.

### **Property value and land acquisition**

A number of submissions were concerned at the NoR effects on property value, and on the land acquisition process. The submissions expected compensation, but many did not have an understanding of the Public Works Act compensation processes and categories.

In addition to the property take compensation, there is also the possibility of injurious affection in some cases, where the operation of the property or business is adversely affected or constrained by the NoR. Many of the business submissions raise the issue of Compromised Activities, where their business loses carparking or vehicle manoeuvring areas needed for the business to operate, or where signage needs to be moved. Those submission points are reported under the Compromised Activities topic.

For most of the specific submitter addresses affected there is a Plan or Map excerpt in the Summary of Submissions Appendix 3, searchable by NoR, submission number and name.

### Submissions on property value and land acquisition

### **GENERAL RELIEF TO DECLINE OR WITHDRAW AN NOR OR THE NORS**

In relation to submissions requesting to decline or withdraw the NoRs, and compensation requests, I note that this is a matter for AT to address during the detailed design of the NoRs, in accordance with processes under the Public Works Act 1981. In part due to the relatively long lapse period proposed, of 15 years (or the 10 years I recommend), the NoRs may have a significant effect on property values and the ability to sell affected properties, so some properties may need to be acquired early.

### **COMPENSATION**

Xu Yajun NoR1-01 asks how much compensation will be paid, and what is the process if they sell land early? 18m<sup>2</sup> of the land at 18 Srah Place is required for NoR1, along the northern frontage to Smales Road. The Public Works Act requires fair compensation, with funded independent valuation. If the submitter wants to sell the property early then they can sell it. If they are unable to achieve a reasonable price, due to the designation over part of the land, then they can request that the Requiring Authority (RA) Auckland Transport acquire the land.

Wei Chao Kuan (Adelante Holdings) asks: "What if I need to sell early?" If the submitter wants to sell the property early then they can sell it. If they are unable to achieve a reasonable price, due to the designation over part of the land, then they can request that the Requiring Authority (RA) Auckland Transport acquire the land.

Wendy Jane Rodger NoR4B (actually NoR3) at 22 Cambridge Terrace, intends to sell her house in two years' time to be able to retire, and wants early acquisition by Auckland Transport. Even without full funding allocated for the Project, the Requiring Authority will need to be able to respond to early compensation requests, if land is unreasonably affected by the designation and not able to be sold at a reasonable price.

Eddie Cheok NoR1-04 seeks compensation for any potential loss of value to the property at 3 Kanturk Close. None of 3 Kanturk Close is being taken for the Project, but the vehicle access to the property is from Kellaway Drive, a slip lane parallel to Te Irirangi Drive which will be re-constructed to form stormwater infrastructure, cycleway, walkway, berm and new access lane. I do not consider compensation would be provided for works outside the property. In my opinion the Project and its works would be unlikely to affect the value of the property, and if anything provide it with a more accessible and rapid public transport location.

Anil Rodrigues NoR1-22 seeks that the Project be stopped, as property value will be affected and their plans to sell will be affected by prospective buyers devaluing the property because of the NoR.

Samir Chalabi NoR1-24 considers the Project will destroy property value and prevent selling at a fair market price. The submitter seeks rejection of the NoR OR Council to buy property early at Council Valuation value. Auckland Transport, as the RA, would need to acquire the property if it cannot be sold at a fair market price. The compensation value will not be based on a Council Valuation, but arrived at by independent valuation as required by the Public Works Act. The submitter's property is at 4 Sheddings Lane, a slip lane parallel to Te Irirangi Drive which will be re-constructed to form stormwater infrastructure, cycleway, walkway, berm and new access lane. The NoR does not extend onto 4 Sheddings Lane.

Taruna and Saurabh Tiwary NoR1-25 are concerned at property value effects of the NoR1 and state that they cannot afford to relocate. The submitters' property is at 6 Sheddings Lane, a slip lane parallel to Te Irirangi Drive which will be re-constructed to form stormwater infrastructure, cycleway, walkway, berm and new access lane. The NoR does not extend onto 6 Sheddings Lane.

Pengxiang Huang NoR2-02 supports the transport initiative, but is concerned at the impact on property value, and seeks reasonable compensation. The NoR2 takes most of the front yard and vehicle manoeuvring area and part of the carport at 192 and 1/192 Puhinui Road. It would affect the value of the properties and require compensation.

Heather Haylock NoR1-26; NoR2-53; NoR3-26; NoR4A-09; NoR4B-04 has concerns about property value and liveability. She states that:

"Having a designation on a property affects its value. For those whose whole properties are planned to be taken in their entirety, it affects how much those properties can reach.

For those whose properties have a sizeable chunk taken away from the front of them, they will be left with a roadway very close to their front doors. This will impact their quality of life. In addition, in some cases, it will leave them with a tiny property footprint that will be incredibly hard to either develop or sell.

Another concern is that given the uncertainty, people may neglect to develop and maintain their properties in the meantime, in the knowledge that the houses will eventually be taken and demolished. This will then potentially have a negative impact in terms of property values for the area that may apply when and if AT gets the central government funding to buy the properties under the Public Works Act."

In my opinion the Public Works Act processes are designed to ensure fair compensation for land taken for public works, including where the remaining land would be difficult to sell or redevelop. Ms Haylock raises the issue that some rear houses will lose the 'buffering' of front houses that are removed, and that there is no compensation to that increased exposure to road effects such as traffic noise. I agree that a designation, particularly with a long lapse period, can have a 'blighting' effect on property, with maintenance and redevelopment sometimes deferred. The uncertainty over whether and when the works will begin means people may be less motivated to maintain and improve the properties. Auckland Transport has acquired houses for other transport projects, and maintained and rented them out until they are needed for the Project works.

Tasman Accounting Trustee Ltd Attn: Mark and Marta Stevens NoR1-35 have concerns that their property at 54 Te Irirangi Drive will be devalued as they will no longer be down a driveway but on a main busy road. Rental returns will also be diminished as it will not be as desirable as it is today. Part of their driveway is taken for the Project, and the property in front (56 Te Irirangi Drive) will be taken and have its house removed. In my opinion, after the Project is constructed the remainder of 56 Te Irirangi Drive appears on the General Arrangement Plans to be of sufficient size to have a new house built.

Lynette Henderson NoR2-12 considers the NoR2 will have an impact on property value of her apartment 8G/18 Ronwood Avenue, and on the value of the building's access and parking and the amenity of the surroundings.

Ramon Lopez NoR2-32 and Alice Anne Lopez NoR2-33 at 2/192 Te Irirangi Drive Flat Bush, consider that their property value will go down if the Project takes some of their land, and want only the central median used for the project and no property taken. They consider their property will become unusable and seek compensation for the property loss in value and for the Project inconveniences. Their neighbours McAlvin Sembrano NoR2-43 and Roy Sembrano NoR2-70 at 1/192 Te Irirangi Drive also have concerns at impacts on property value and seek fair compensation for any land taken, using their valuers at the time the land is used for the Project. The RA prepares a valuation and uses it to make an offer to the landowner, and funds the landowner to get an independent valuation. If the valuations cannot be agreed then the Land Valuation Tribunal can be used to decide the value.

Shane Robert Haylock NoR2-65 is concerned that the Land Acquisition Process is not explained to affected parties, and that no compensation is proposed for stress and property devaluation caused by the Project. Mr Haylock states that: "1. People are being told they have no options but to sell in the future. They face being uprooted from their family homes and area they have chosen to live. It was even intimated that this was largely ok as they live under a high noise area anyway and it is of low value housing stock so really this should be ok. No consideration or compensation is even seemed to be considered for the stress this causes people and the potential impact to their property prices this will cause. 2. For people having to give up their full properties the answer is that people need to negotiate with AT for a fair market value for their home and that is it. Evidence from people we know already effected in the same way here and in Pakuranga show that they need to fight to even get a mid-range price. People's lives are being unended and it seems the AT response is to try and get the properties for the least amount. The responsibility seems to fall on the landowner. No consideration to the harm that that does to the people concerned, now, leading up to the project and while the process is being done. 3. Some peoples properties who have only part taken seem to be even more adversely harmed as it will make their long term use of their houses far more difficult. Perhaps the thought is that a bit of money for the land taken will mitigate the impact to their lives and even the ability to sell their houses in the future."

In my opinion the Public Works Act processes are designed to ensure fair compensation, and include an additional payment where land is compulsorily taken in compensation for that unwillingness of the seller.

Andrea Mead & Dr Stephanie Mead NoR2-71 are concerned that the Project will lower property value, make it difficult to sell and there will be no compensation until the land is taken for the development. The NoR2 will take some of the submitters' land at 2/2 Ihaka Place, which will lower the remaining property value but be required to compensate. There will be a different outlook from the property, with the central median to lose its Norfolk Pines in order to accommodate the BRT, but there will be new street tree planting. If the submitters wish to sell the property early, then the failure to get a fair price can mean that the Requiring Authority must purchase then for a fair price (fair as if there were no designation on the property).

### **INDIRECT COSTS**

Compensation may be required for indirect costs on properties and business operations, such as for resource consents and variations to resource consents, movement of and changes to signage, and re-configuration of business activities and buildings and infrastructure on a site caused by the NoR.

National Mini Storage Limited NoR1-21 seeks compensation for any costs to resolve consenting matters (varying conditions etc) to be met by requiring authority.

Neha Singh NoR2-03 seeks help with home loans, mortgage interest and other costs of relocating if the NoR proceeds. I understand the Public Works Act requires compensation for land and buildings taken, for independent valuation costs and for an additional amount where the land take is compulsory.

Wiri Business Association Inc (WBA) NoR3-13 and Business Manukau NoR2-38 identify as indirect costs the loss in revenue for local businesses directly affected by construction as road blockages or disruptive construction may redirect regular businesses' customers. The WBA and Business Manukau seek a Development Response Management Plan (DRMP) to be implemented prior to the start of construction to provide a framework to assist businesses affected by the Project during construction. This would be a Condition and broadly include: – Recommendations for measures to be undertaken to manage the impacts of Construction Works on the identified businesses; – A summary of any proactive assistance provided to impacted businesses; and – Identification of opportunities to co-ordinate the forward work programme, where appropriate with infrastructure providers and development agencies. That DRMP is proposed in the NoR conditions.

### **Zoning and surplus land**

Some submissions speculated on future zonings for land affected by, or in the vicinity of, the NoRs. The land below Puhinui Road currently has much low density residential zoning, due to the overlays of Aircraft Noise (HANA and MANA). Plan change 78 is currently proposing to raise the residential intensity in some of that area. PC78 does not yet go as far as implementing the minimum six storey height limit within the walking catchment of rapid transit stations (Puhinui Rail and BRT Station and Lambie Drive BRT Station, as required by the NPS:UD. It is also possible that the area in the future would be seen as a significant transport interchange warranting greater business presence as well as intensive residential development. Those ideas are only my speculation at this time, and the NoRs themselves do not change the zonings in the AUP:OP.



### **Zoning and surplus land submissions**

Heather Haylock NoR1-26; NoR2-53; NoR3-26; NoR4A-09; NoR4B-4 notes the AEE shows a zoning not in the legend so uncertain, on the area of land she calls the PRCC Island (land bounded by Puhinui Road, Ranfurly Road, Clendon Ave and Cavendish Drive). [The zoning colour has not copied well and is in fact mainly Residential – Single House Zone, due to the HANA and MANA aircraft noise overlays. Plan Change 78 is changing much of that zoning to Mixed Housing Urban and Terrace Housing and Apartment Building] Ms Haylock considers that the re-development of surplus land on Puhinui Rd should be open space ribbon park, not intensive housing. She acknowledges that commercial development may occur, but the land is not yet zoned for that and the NoR does not change the zoning. Another of Ms Haylock's concerns is that the removal of street-fronting houses will remove the buffering those houses provide to the houses behind them. It is possible that re-development of the street frontages could reinstate that buffering. It is likely, in my opinion, that the Requiring Authority will want the surplus land sold to defray the costs of the Project.

Tasman Accounting Trustee Ltd (Mark and Marta Stevens) NoR1-35 (actually on NoR2) foresee possible changes to the unitary plan zoning and future development potential for their property at 54 Te Irirangi Drive and the property in front of them at 56 Te Irirangi Drive, which is directly affected by the NoR2. 54 Te Irirangi Drive had previous consent for a minor dwelling which was not carried out as they had the intention of doing a higher density development in the near future. The NoR2 does not change the land zoning, but the BRT and its stations in my opinion would support a high-density residential zoning and intensive residential development.

Mark Elder (Puhinui School) NoR2-67 notes that, in relation to private developments, any housing within 800 metres of key transit corridors can be up to six storey high by right. This will cover a large amount of the school zone on either side of Puhinui Road and side streets. He reports that school parents also consider there may be commercial development on the southern side of Puhinui Road. This would put potentially many residential sections for the school community on the opposite side of Puhinui Rd, requiring additional traffic safety measures like railing and speed reduction zones to ensure the students wellbeing. Mr Elder understands that once this project is complete any surplus or spare land could be used in any way that is deemed to be related to this project, for example to build multiple flats or other housing units. This is despite it appearing on the surface of being not related to the transit project directly. If this were to occur, Mr Elder considers it could have an impact on the school and planning. I note that more intensive zonings for the area are already underway in Plan Change 78, and there will be consequential effects to manage on the school roll, its planning and the students' transport and safety.

### **Business effects**

Some of the submissions on effects on businesses are reported under the Compromised Activities topic, where they relate to a specific site, or under the Construction noise and vibration, Traffic.

## **Business effects submissions**

Business East Tamaki NoR1-23 supports the NoR1 but requests mitigation of effects. Some of the effects on businesses include indirect costs such as loss in revenue for local businesses directly affected by construction as road blockages or disruptive construction may redirect regular businesses' customers; loss of local employment / livelihood due to acquisition of local businesses or businesses voluntarily relocating to avoid significant construction impacts; workers' safety being compromised due to potentially poor safety policy and monitoring (perhaps even fatalities and / or severe workplace incidents); loss of businesses serving smaller communities; loss of employment and livelihood as a result of property acquisition or business disruption; changes to community character and sense of place due to loss or modification to valued local businesses; changes to pedestrian and vehicular accessibility to the town centres, including commercial and residential land use; changes to local road access and through-routes for freight.

The submitter seeks that these effects be avoided, remedied or mitigated, by the proposal including a Development Response Management Plan (DRMP) to be implemented prior to the start of construction to provide a framework to assist businesses affected by the Project during construction. As set out in the Assessment of Effects on the Environment of the NoR, this would be a Condition and broadly include: – Recommendations for measures to be undertaken to manage the impacts of Construction Works on the identified businesses; – A summary of any proactive assistance provided to impacted businesses; and – Identification of opportunities to co-ordinate the forward work programme, where appropriate with infrastructure providers and development agencies. A more detailed discussion of the proposed DRMP is included in the application Social Impact Assessment. The DRMP and SCEMP are proposed as conditions on the NoRs.

Business Manukau NoR2-38 raises the same issues as Business East Tamaki NoR1-23 but also additionally on Parking and Access and Alternatives. There appears likely to be a reduction in parking availability due to changed road conditions and demand for parking from the construction workforce. 117 on-street public parking spaces and approximately 295 on-site parking spaces across 14 individual properties, typically along site frontages, will in Business Manukau's opinion be negatively affected by the proposal. All properties currently gain all-movements access onto Puhinui Road. Due to the central BRT corridor, these properties will be restricted to left turn in / left out movement (i.e. right turns will be prohibited); Lambie Drive, Ronwood Avenue, Manukau Station Road, and Great South Road currently provide a central solid median, but gaps in the median are intermittently provided to enable all-movement access to some properties, especially retail centres, The Project corridor prohibits all right turn access to these properties; The alternative routes identified add up to 2.5 km additional travel distance [The Assessment of Traffic Effects considers that "acceptable from a traffic perspective" ATE at 8.4.4.1]. Business Manukau asks that the proposal avoid, remedy or mitigate these effects on businesses. Business Manukau also seeks further information on why Option 6 was preferred over Option 5 (which would have affected fewer businesses), and what is going to happen to the right-turning options from Ronwood Avenue into Sharkey Street or Osterley Way.

Wiri Business Association Inc (WBA) NoR3-13 has similar concerns to Business Manukau NoR2-38 and Business East Tamaki NoR1-23 and also additionally on Parking and Access. There is a reduction in parking availability due to changed road conditions and demand for parking from the construction workforce. 21 on-street public parking spaces and approximately 20 on-site parking spaces will be negatively affected by the proposal, and in particular 316 Puhinui Road (Safestore). The WBA asks that the proposal avoid, remedy or mitigate these effects on businesses. All properties currently gain all-movements access onto Puhinui Road. Due to the central BRT corridor, all properties will be restricted to left turn in / out movement (i.e. right turns prohibited). The alternative routes will add up to 2.5 km of travel distance, according to the ATE. The WBA asks that the proposal avoid, remedy or mitigate these effects on businesses.

PSPIB/CPPIB Waiheke Inc NoR2-49 (owners of Manukau Supa Centa) and Auckland Body Corporate Limited NoR2-50 (control common areas at Manukau Supa Centre) are concerned at business effects, including economic impacts on Manukau Supa Centa and its tenants such as: direct loss of land; impacts on business revenue; impacts on entry and exit access for suppliers and other site servicing needs; loss of road frontage space; and adverse effects on carparking through the loss of on-site parking spaces at Manukau Supa Centa.

Ganpat Patel NoR3-06 is concerned that, if parking in front of the 165 Puhinui Road block of shops is removed, businesses will become unviable. The General Arrangement Plans appear to show no parking but a batter slope in front of the shops at 165 Puhinui Road.

### **Compromised Activities**

Where an NoR takes part of a site for the Project it can compromise the operation of the activities on the site. In some cases it can mean the landowner needs to get new resource consents or variations to resource consents to maintain their operations in a re-configured format. In addition to the property take compensation, there is also the possibility of injurious affection in some cases, where the operation of the property or business is adversely affected or constrained by the NoR. Many of the business submissions raise the issue of Compromised Activities, where their business loses carparking or vehicle manoeuvring areas needed for the business to operate, or where signage needs to be moved. Those business activity submission points are reported here. For most of the specific submitter addresses affected there is a Plan or Map excerpt in the Summary of Submissions Appendix 3, searchable by NoR, submission number and name.

Management plans are proposed by the Applicant to manage some of the disruptive construction effects and the mitigation after construction, such as Construction Traffic Management Plan (CTMP), Construction Noise and Vibration Management Plan (CNVMP); Stakeholder Communication and Engagement Management Plan (SCEMP); Development Response Management Plan (DRMP); Construction Environmental Management Plan (CEMP); Network Utilities Management Plan (NUMP); and Urban Landscape and Design Management Plan (ULDMP).

My overall recommendation on the NoRs includes that the RA investigate reducing the extent of area within the NoR boundary, by the use of retaining wall edges rather than the proposed batter slopes. This would not be appropriate in every case, but for many affected properties it could restore much of the operational utility, and for residential sites some of the front yard amenity.

Some residential sites which lose their front yard to the Project may similarly be compromised in the loss of on-site parking and vehicle manoeuvring, even to the extent of needing to reverse onto arterial roads. Those residential submission points are reported under Access, Residential Amenity and Property Value topics.

### **Compromised Activities submissions**

TIM Nominees Limited and The Saint Johns College Trust Board NoR1-27 at 439 East Tamaki Road (supported by Transport Memo received LATE), is concerned that NoR encroachment into the outdoor yard and parking area will significantly affect the current and future operations of the site (57 on-site parking spaces removed, and reduction in ability for truck manoeuvring and access). Injurious affection. Loss of two signs, loss of landscaping and need to move security fence. Reduces viability of site for future tenants. Seeks removal of the NoR from the site. Seeks consider a retaining wall rather than batter, and/or consider reducing the separated walkway and cycleway to a shared path, to reduce encroachment by 2m. The General Arrangement Plan shows the land used for a cut batter, and significantly less land would be needed for a retaining wall, with reduced effects on site operations. This batter vs. retaining wall issue is also discussed under the Extent topic, where submitters wanted the extent of NoR reduced by the use of retaining walls rather than batter slopes. The Hearing Chair has directed that, if the Transport Memo is supporting information for the submission, it is to be attached to the submission. In any case it can also be provided as submitter's specialist evidence and presented at the hearing.

Paul Street NoR1-45, at 11 Reg Savory Place, is concerned the NoR widening Te Irirangi Drive will substantially affect the operational viability and value of his property. The current site allows for vehicle access around the office complex to the roller doors on the eastern side of the warehouse. They are concerned that the proposed reduction of 800mm and any associated batter will mean that trucks and delivery vehicles will no longer be able to access the eastern side of the building and severely diminish the commercial viability of the facility.

They seek realignment of the NoR1 through a minor dogleg realignment of the proposed pedestrian path and cycleway towards the dual carriageway along the length of the boundary. This would eliminate the need for any adjustment to the existing boundary. This proposal would also eliminate the need for the proposed 2 metre contractor access strip within the submitter's existing boundary. The current tenant is a car sales operation with the entire length of the eastern boundary used to display vehicles for sale. The proposed access strip would, for the duration of the construction period, in the submitter's opinion, mean that the tenant would be unable to display his stock for sale and possibly result in him abandoning the existing lease on the basis that the building was no longer fit for purpose. I as reporting planner would support investigation of a retaining wall option to reduce the land take, although accept that even a retaining wall would need a construction area extending onto the property.

NoR1-47A East Tamaki Investments Ltd 360 Te Irirangi Drive The property is occupied by East Auckland BMW, being a car sales and showroom for BMW and Mini in the eastern part of the Auckland region. The property was recently redeveloped for this landuse and tenant and all aspects of the improvements to the site are specific to its commercial needs, including building envelope, site layout, design detailing, staff parking, customer parking, outdoor parking/display of vehicles for sale and all vehicle manoeuvring, including car transporter trucks with Semi Trailers delivering stock to the site.

The NoR1 will result in loss of all 19 premium frontage display parking spaces (only another 5 outdoor display parking spaces on the site); insufficient space for frontage landscaping, vehicle manoeuvring, signage and banners; loss of structures along Te Irirangi Drive frontage (retaining wall up to 3m high and its security fence, security lighting poles, free-standing signage plinths,); loss of structures along the site's frontage to Te Irirangi Drive, including but not limited to, extensive retaining walls, pedestrian entrance steps, block and concrete planter boxes, landscaping, security lighting pole and in-ground lighting, 2 x consented freestanding signage boards and 3 x flag poles; loss of private stormwater drainage including 3 x pipes, 2 x manholes and 3 x cesspits, 1 x water connection and 2 x water meters; apparent loss of direct access to Te Irirangi Drive. Construction dust and debris on new cars displayed for sale.

The submitter considers it will not be viable for a high end car dealership to continue to trade from the submitter's site, as all of the above features of the site are critical for the viability and success of the submitter's tenant's commercial activities, which would not be able to be provided as required by their lease under the circumstances of the designation sought.

I agree the land take would result in changes to the way the site is used, including configuration and numbers of frontage car sale display spaces. Affected landscaping, flag and security lighting poles, free-standing signage, pedestrian entrance steps, block and concrete planter boxes, would need to be moved or compensated. Underground services and utilities would be reinstated as part of the Project construction works. The site does not appear to have alternative legal rear access to/from Beale Place, but the existing vehicle access to/from Te Irirangi Drive appears to be removed by the new retaining wall. If direct vehicle access can be reinstated to Te Irirangi Drive it may need a ramp taking up more of the site. I do not agree with the submitter that the site would no longer be suitable for continuing its current use, however I do not have sufficient information or an alternative site layout design to show how that could occur. If the NoR1 is confirmed these compromised activities would be the subject of contention within the Public Works Act land acquisition processes.

NoR1-47B Beale Partnership 350 Te Irirangi Drive The property is occupied by Andrew Simms Botany, being car sales and showrooms for Jeep/Chrysler/Ram, Kia and Mitsubishi Motors in the eastern part of the Auckland region. All aspects of the improvements to the site are specific to these tenancy's commercial needs, including building envelope, site layout, design detailing, staff parking, customer parking, outdoor parking/display of vehicles for sale and all vehicle manoeuvring, including car transporter trucks with Semi Trailers delivering stock to the site.

The NoR1 would result in loss of 30 premium frontage display parking spaces; insufficient space for frontage landscaping, vehicle manoeuvring, signage and banners; loss of structures along Te Irirangi Drive frontage (retaining wall up to 3m high and its security fence, security lighting poles, free-standing signage plinths,); loss of underground stormwater pipes. The submitter considers it will not be viable for a high end car dealership to continue to trade from the submitter's site, as all of the above features of the site are critical for the viability and success of the submitter's tenant's commercial activities, which would not be able to be provided as required by their lease under the circumstances of the designation sought.

I agree the land take would result in changes to the way the site is used, including configuration and numbers of frontage car sale display spaces. Affected landscaping, security lighting poles, and consented free-standing signage plinths would need to be moved or compensated. Underground services and utilities would be reinstated as part of the Project construction works. An existing retaining wall (up to 3m high) along the southern part of the Te Irirangi Drive frontage is shown in the General Arrangement Plans as being rebuilt further back in the site and extending along the full length of the site frontage. The site has rear access to/from Beale Place, but the existing vehicle access to/from Te Irirangi Drive appears to be removed by the new retaining wall. I do not agree with the submitter that the site would no longer be suitable for continuing its current use, however I do not have sufficient information or an alternative site layout design to show how that could occur. If the NoR1 is confirmed these compromised activities would be the subject of contention within the Public Works Act land acquisition processes.

The most valuable premium frontage parking (with the most commercial street presence) used for the display of vehicles for sale which abut Te Irirangi Drive, would be compromised, such that up to 4 of these parking spaces would be lost. This is particularly problematic as there are only another 5 outdoor display parking spaces on the site's premium Te Irirangi Drive frontage. The taking of approximately 1.5m of width of the vehicle circulation area alongside the southern part of the building and the south-eastern corner of the site, will compromise the ability of trucks to manoeuvre around this southern part of the site (car transporters with 17.0m Semi Trailers with 12.5m WW Turning Radii). Various improvements along the site's full frontage to Te Irirangi Drive would be lost, including but not limited to landscaping, security lighting pole and in-ground lighting, 1 x consented freestanding signage plinth. Underground services and utilities would be lost: private stormwater drainage including 3 x pipes, 2 x manholes and 2 x cesspits, 1 x water connection, including 2 x water meters and part of a wastewater drainage line including at least 1 x manhole. Construction dust and debris could mar or damage new cars displayed for sale.

If the Te Irirangi Drive vehicle ingress into the adjacent car dealership at 360 Te Irirangi Drive is not able to be reinstated but the business continues to operate from this site, there will be an increase in traffic movements to/from Beale Place and an increase in on-street parking demand. This street is a short no-exit street that is already challenged with the number of businesses taking primary (customer) and secondary (staff and business-to-business traffic) feeding from it and associated parking and loading demands. The submitter considers that any additional demands on this street will adversely affect the businesses that currently rely on it, including the submitter's tenant, Botany Toyota, to the detriment of its service attractiveness to its customers and its overall commercial viability.

The submitter considers the changes to the site's operation would result in breaches of the conditions of the site's 2017 resource consent, and may also breach the conditions of the lease.

I agree the land take would result in changes to the way the site is used, including configuration and numbers of frontage car sale display spaces. I am unable to determine how car transporter semi-trailers manoeuvre through the site and whether that could still be accommodated after the works are completed. Affected landscaping, security lighting pole, in-ground lighting, and consented free-standing signage plinth would need to be moved or compensated. Underground services and utilities would be reinstated as part of the Project construction works. It is not clear from the General Arrangement Plans whether the neighbouring site at 360 Te Irirangi Drive will continue to have direct access to and from Te Irirangi Drive (ramped through the retaining wall) or whether it has legal access to Beale Place. If the NoR1 is confirmed these compromised activities would be the subject of contention within the Public Works Act land acquisition processes.

SPG Manukau Limited NoR2-09 is concerned at the widening of Lambie Drive including batters rather than retaining wall, and maintenance of two existing two-way site accesses; resource consents for three new businesses including drive-through food and beverage would be compromised; seeks extension of the alignment westwards to provide a signalised intersection for Gilmours and submitter.

Murdoch Newell Management Limited NoR2-17 have a proposed hotel and commercial space and apartment building compromised by the NoR2, and access disabled; Seek movement of the alignment onto Hayman Park, away from submitter's site.

Ormiston Centre Ltd NoR2-20 is concerned that existing resource consents and private plan change opportunities are adversely affected; They also need to retain existing access points with right-hand turns into site; Seek withdrawal of NoR OR modification of the NoR to minimise land take. The proposed land take here is not deep into the property, but it does extend along the long Te Irirangi Drive boundary.

Michael Sheridan (Van Den Brink 652 Limited) NoR2-40 is concerned that the construction and use of the Airport to Botany BRT will have impacts on the land, access and operations of the sites owned by the submitter at 654 Great South Road and 5 Te Irirangi Drive. Approximately 60 carparks will be affected along the northern boundary, at least during the construction phase, and potentially 3-4 carparks will be affected permanently following construction, depending on the space required for the indicated retaining wall. Both entrances into the site (the signalised intersection onto Great South Road and the one-way entrance from Te Irirangi Drive) will be impacted to some degree during the construction phase of the works on these roads. If the use of these entrances and exits is restricted or shut down during the construction phase then this will impact the operation of the activities on the site.

The submitter seeks that works are managed in a manner that maintains access to the site for staff and customers throughout, and following completion of works. The key delivery access to the rear of the Countdown supermarket on the site will also be affected. This has the potential to significantly impact the operation of the businesses on the site during works – particularly on the operation of the Countdown supermarket as this is the single delivery access to the rear of the site. Road widening will involve shifting of two existing free-standing signs, and the submitter considers that the designation works should include that sign relocation, or compensation. This submission is also discussed under the EXTENT topic.

Scentre (New Zealand) Limited NoR2-44 (Westfield Manukau) seeks that the NoR2 has conditions imposed to ensure that proper consideration is given to the positioning of bus stations and/or shelters to avoid the impact on neighbouring land. Scentre wishes to ensure that Auckland Transport consults with Scentre in relation to the location of any BRT facilities such as bus stations and/or shelters on Ronwood Avenue to the north of Westfield Manukau, in order that they are appropriately located, and do not compromise fire egress from the Westfield Manukau cinemas, potential future street activation, linkages from Ronwood Avenue to the centre or other practical access issues.

Z Energy Limited NoR2-45 at 136 Dawson Road, the NoR2 extends across a car parking space, into the frontages including a perimeter sign and landscaping, under the canopy, over a pump island and its two refuelling lanes and into hazardous areas needing to be under the control of the service station operator. The full nature and extent of changes on the site and effects on the layout and viability of the site are not clear from the AT assessment. Service station was established by resources consents. Any change to the layout of the Z site arising from the designation will make it difficult for the submitter to comply with those resource consents, and any subsequent resource consents issued. Similar applies in relation to compliance with other legislation and regulation. These impacts need to be considered in some detail and may necessitate obtaining variations or new consents. In the absence of further information, the nature of any such changes and likelihood of obtaining the potentially required approvals is unknown. That process creates uncertainties for the Submitter and may ultimately render the site unviable with corresponding adverse social and economic effects.

Bunnings Limited NoR2-46 at 55 Lambie Drive is concerned NoR2 will adversely affect the operation of Bunnings Warehouse Manukau, as it will result in adverse effects (both during construction and once operational) on the operation of Bunnings Warehouse Manukau which have not been adequately avoided, remedied or mitigated. Various lane and road closures will increase congestion and travel time, and adversely affect the performance of key intersections surrounding the Bunnings Warehouse Manukau; Increased parking pressure on customers shopping at the Bunnings Warehouse Manukau with limited carpark access due to restrictions on surrounding access points; Loss of parking on site along Lambie Drive frontage; Disruption to access during construction; Business disruption effects including impacts on access to amenities offered and other servicing to Bunnings Warehouse Manukau.



Kmart NZ Holdings Limited NoR2-39, PSPIB/CPPIB Waiheke Inc NoR2-49 and Auckland Body Corporate Limited NoR2-50 (Control the common areas at Manukau Supa Centa) oppose the NoR2 being confirmed as currently proposed on the basis that NoR2 will adversely affect the operation of the Manukau Supa Centa; Adverse effects on traffic and the transport network during construction, including: various lane and road closures, which will increase congestion and travel time, and adversely affect the performance of key intersections surrounding the Manukau Supa Centa; a reduction in the Level of Service at peak commuter times arising from the replacement of the Lambie Drive / Ronwood Avenue roundabout with a signalised intersection; and increased pressure on customers shopping at the Manukau Supa Centa with limited carpark access due to restrictions on surrounding access points; Access to and from site during construction will be disrupted; Business effects include economic impacts on Manukau Supa Centa and its tenants including: direct loss of land; impacts on business revenue; impacts on entry and exit access for suppliers and other site servicing needs; loss of road frontage space; and adverse effects on carparking through the loss of parking spaces at Manukau Supa Centa along Lambie Drive.

Harvey Norman Properties NZ Limited and Harvey Norman Stores Pty NZ Limited NoR2-54 Compromised activities: access, manoeuvring and truck loading areas are compromised. The Proposal will also result in the removal of at least 52 car parking spaces along the Lambie Drive frontage, including two mobility spaces. The ATE report incorrectly states that these spaces are associated with office activities, they are available for customers and staff of the various retail stores within the Supa Centa, with office activities being relatively minor. The loss of the car parking spaces in this location will put additional pressure on the remaining car parking spaces within the Site (and associated manoeuvring areas and aisles), especially during the busiest trading days. This could make it difficult for customers to find a parking space, with consequential trading losses for the Submitter and the Supa Centa generally.

General Distributors Limited NoR2-51 at 654 Great South Road (Countdown a sub-lessee) is concerned at business disruption and other economic effects caused by: reduced access to essential services such as Countdown Manukau; impacts on GDL's sublessee, both in terms of loss of carparking and servicing access, and other effects outlined in the submission, on Traffic; Parking; Construction noise and vibration.

JOLT Charge (New Zealand) Limited NoR2-52 (electric car-charging at the Mitre 10 site 61 Lambie Drive) NoR2 removes the free-standing advertising unit, which provides funding for the free electric vehicle charging. Seeks reject NoR2 OR amend the notice of requirement to retain JOLT's free-standing advertising unit in a location proximate to the proposed signalised intersection with 61 Lambie Drive, to the satisfaction of JOLT.

David Gell Mitre 10 Holdings Limited NoR2-56 Mitre 10 obtained consent to establish a block of retail units along the eastern (Lambie Drive) frontage of the site (reference 39288), which has since lapsed. Mitre 10 will soon be lodging a resource consent application to establish a semi-enclosed storage area in the metalled south-eastern corner of the site, due to space constraints at the existing store. Mitre 10 recognises the potential of the Business – Metropolitan Centre (BMC) zoning of the site, and that the existing Mitre 10 store does not necessarily represent the ‘highest and best’ use of the site, or the type of development envisaged on the site under the BMC zoning. In the long term, Mitre 10 would like to explore a mixed-use development on the subject site, realising both the potential of the site and the outcomes anticipated by the BMC zoning. Within the BMC zone, the AUPOP anticipates development to ‘front’ the street, achieved by constructing buildings to the edge of the footpath at ground level, with glazed shop frontages abutting the street and apartment and/or office space above. As submitted, the NoR2 is disabling of this outcome, in providing for and protecting a batter slope supporting the road and residual land beyond, thus preventing the streetscape outcome promoted by the BMC zoning of the site. In the opinion of Mitre 10, such batter slopes are more suited to industrial and low density residential environments, and are inappropriate in metropolitan centres. Seeks extent of NoR2 as it affects 61 Lambie Drive be reduced such that the only part of the site affected by is that part of the site required to form a signalised intersection; OR That the NoR2 be amended such that that any land taken within the site will be temporary and for construction purposes only, except that land required for the establishment of the signalised intersection.

Joo Han Song NoR2-60 and Su Me Lee NoR2-61 (no A2B related address provided) have compromised activities, as had planned to build two units on a site they own within NoR2 (site address not specified). Now there will be a big rent burden if they are forced to sell the property if it cannot be developed.

Roy Sembrano NoR2-70 and McAlvin Sembrano NoR2-43 at 1/192 Te Irirangi Drive - Access, comfort and space are compromised by the land being taken from the front yard and by the Project.

Nigel Stickland (Manukau Auto & Tyre Centre) NoR3-14 (actually NoR2): “NoR takes away carparks which are vital to our business”.

Jasvinder Singh and Harmeet Kaur Sokhi NoR3-15 Re 211 Puhinui Road / 108 Kenderdine Road : “We bought this property for our 3 kids’ secure future. We had plans to build this property by either Airbnb houses OR as a commercial shopping centre with a coffee shop/bakery with the option to have a home upstairs. Currently have two houses on the property. Our plan B if the above was not feasible, was to build a big family home as we are a joint family, hence the first reason we have secured this large section in order to build the family home as this location is close to all the amenities. Cost of living is ever-increasing and we would not be able to find another apple-to-apple house with land, which is central, desirable, and situated conveniently close to local amenities.

New Zealand Storage Holdings Limited NoR4A-07 Re 402 and 408 Puhinui Road, considers compromised activities as NoR4A does not adequately address effects on NZSHL's land, and its ability to access, develop and operate its business activities on the land. NZSHL is currently developing its land in accordance with approved resource consents and the Puhinui Precinct provisions and, in conjunction with Altrend Properties Limited and Tunicin Investments Limited, is in the process of obtaining resource consents for the development of a four-way intersection at the current Manukau Memorial Gardens access intersection with Puhinui Road. Seeks reject the NoR4A OR Alternatively amend the notice of requirement to give effect to the concerns raised in the submission. Other submission points on Lapse Period; Extent; and Access are reported under those topics (thumbnail map excerpts against Extent topic).

Taylor Mitchell (Auckland International Airport Limited "Auckland Airport") NoR4A-18 and NoR4B-10 considers there are compromised activities: While the parties have worked (and continue to work) closely together, Auckland Airport is concerned NoR4A (in its current form) does not make adequate provision for, or integrate with, Auckland Airport's (current and future) operational needs. The works (once completed) will not allow adequate space for Auckland Airport to construct and provide for utilities that are necessary to service the operational needs of the Airport. Stormwater infrastructure for the corridor could adversely affect Auckland Airport's land through discharges or otherwise. It is critical that infrastructure required for the NoR is appropriately designed and located so as not to unduly interfere with activities on the Airport's land.

While the proposed conditions make some provision for network utility operators (including Auckland Airport) with existing infrastructure within the extent of NoR4A (including draft conditions 6 and 27), the proposed conditions do not adequately provide for ongoing and future operating needs of the Airport. Ensure appropriate conditions are included in NoR4A to avoid, remedy or mitigate adverse effects on Auckland Airport's landholdings and operations during construction, including effects on traffic and the transport network, and that there are ongoing commitments for engagement and coordination with key stakeholders, such as Auckland Airport. The proposed Network Utility Management Plan (NUMP) condition is intended to provide for the necessary engagement and co-ordination, and Auckland Airport is specifically noted as a stakeholder. Stormwater discharges and diversions (culverts) and works in or near streams and wetlands will need resource consents nearer to the time of construction, but are not included in these NoRs.

### **Effects on network utilities**

I consider that the submission concerns on network utilities are addressed by the proposed Network Utility Management Plan ('**NUMP**') condition, which requires a NUMP to be prepared in consultation with relevant network utility operators, to provide access to networks for utility providers and appropriately manage construction effects. Engagement, consultation and co-ordination of planning and construction is the intention.

## **Submissions on Infrastructure**

Chris Horne (Telecommunications Submitters) NoR1-40, NoR2-75, NoR3-34, NoR4A-13, NoR4B-06 There are Chorus fibre and copper lines and 8 mobile network sites located within the Project footprint. Existing and future telecommunications infrastructure needs to be protected by the Project works and consultation. The NUMP condition should recognise the complexity of network utility operators involved. Seeks an advice note be added to the Network Utility Management Plan (NUMP) Condition on each NoR (Condition 27 on NoRs1 to 4A and Condition 24 on NoR4B), as follows:

### Advice Note:

For the purposes of this condition, relevant telecommunications network utility operators include companies operating both fixed line and wireless services. As at the date of designation these include Aotearoa Towers Group, Chorus New Zealand Limited, Connexa Limited, One New Zealand Limited, Spark New Zealand Trading Limited and Two Degrees Mobile Limited (and any subsequent entity for these network utility operators).

Seeks a new condition to each notice of requirement as follows:

XX: The Requiring Authority shall consult with Network Utility Operators during the detailed design phase to identify opportunities to enable, or not preclude, the development of new network utility facilities including access to power and ducting within the Project, where practicable to do so. The consultation undertaken, opportunities considered, and whether or not they have been incorporated into the detailed design, shall be summarised in the Outline Plan or Plans prepared for the Project.

Given the complexity of network utility operators involved in the area of the Project, and the intention to co-ordinate future telecommunications infrastructure with the Project, I would support the inclusion of the requested Advice note and new Condition.

Auckland University of Technology (AUT) NoR2-22 and Minister of Education NoR2-23 (designating authority for AUT South) consider the NoR2 has insufficient information to allow understanding of the effects and mitigations. AUT has substantial plant and underground infrastructure within the NoR2. NoR2 affects planned key road circulation route and main pedestrian access. The area of the Campus required for construction is unclear. AUT seeks modification of NoR2 to meet concerns, with appropriate conditions; requires further information to understand effects and mitigations. AUT seeks that the A2B NoR2 is identified as secondary to the AUT designation. AUT and Minister of Education also have submission points on other matters than infrastructure, including Access; Construction noise and vibration; Operational noise; Urban design and visual effects; Trees; and Lapse period, and those submission points are reported under those topics.

I consider it would be public information that the AUT South designation was established prior to A2B, so AUT South is the primary designation and RMA s177 consents would be required before any A2B works could occur within the AUT South Campus designation. It may be appropriate for AT to advance preliminary design work in order to confirm a clear A2B works and post-construction designation boundary, and to lessen the likelihood that those future s177 consents would be refused.

Mr Martyn Chalmers and Mrs Nurhayati Chalmers NoR2-58 identify that the Watercare Hunua 4 water main runs under Puhinui Rd, and question whether it is deep and strong enough to sustain the traffic loads that the Project will bring to Puhinui Road. The RA is required to protect network utility infrastructure within the NoRs.

Michelle Joy Te Hira NoR3-19 Re 1/93 and 2/93 Kenderdine Road, is concerned at Project effects on her on-site infrastructure connection. It is a sloping section with sewage pipes already less than 100mm underground. The wastewater pipes are below street and need to be pumped up, failure to do so will result in floods and outpours of water from the pump if interfered with. The Project could mean restrictions to wastewater, and no power, water, internet, sewage or safe access to property whilst construction site in place.

The submitter seeks clear plans for how to manage living at both properties while construction is taking place, including access to 1/93 Kenderdine and 2/93 Kenderdine Road with security for parking of their personal assets and clear foot/pathways to the front doorstep, Water, Power, Sewage, Internet and Wastewater access to both properties with no interruptions. The NoR3 does extend onto 1/93 and 2/93 Kenderdine Road, and would involve earthworks to establish the new walkway, cycleway and berm, and any changes needed to below-ground infrastructure in that area. The Management Plans would be expected to minimise service and access disruption effects, and if too severe would need to include a temporary relocation option. The acquisition process for the front parts of 1/93 Kenderdine and 2/93 Kenderdine Road would include any consequential changes to the property service connections, including for wastewater, power, water, internet and phone

KiwiRail Holdings Limited NoR3-20 KiwiRail supports Condition 27 which requires the preparation of a Network Utility Management Plan (NUMP). Condition 6 provides for the activities of network utility operators – a status also held by KiwiRail Holdings Limited. KiwiRail seeks the deletion of the word ‘urgent’ from Condition 6(a)(i). Specific areas that are of greatest interest to KiwiRail and around which the detail will need to be resolved prior to signing any s177 approval, include: 1. Ongoing engagement with KiwiRail through the detailed design process to ensure; a) That KiwiRail’s strategy for growing the capacity of the NIMT through the provision of additional tracks is acknowledged and accommodated in the design of the physical works for NoR3 and b) All safety and operational concerns arising from structures over and adjacent to the rail corridor are mitigated, including but not limited to ongoing effects on corridor stability 2. Detailed matters intended to be covered in the Network Utility Management Plan (NUMP). KiwiRail seeks that NoR3 be recommended for approval subject to the conditions that have an influence on rail as outlined in the submission, including 3 (review of surplus land post-construction), 27 and 6 (as sought to be amended) being imposed.

#### *Condition 6*

- (a) Prior to the start of Construction Works, Network Utility Operators (including Auckland International Airport Limited) and Auckland Council with existing infrastructure and/or parks facilities located within the designation will not require written consent under section 176 of the RMA for the following activities:*
- (i) operation, maintenance and urgent repair works;...*

As reporting planner, I would support the deletion of ‘urgent’ from proposed Condition 6. Any repair works, if needing to be done, would always be considered urgent.

Altrend Properties Limited NoR4A-04 & NoR4B-20 considers the NoR4A and NoR4B may have effects on consented and constructed stormwater management devices on the property (67 hectares of greenfield industrial land). Altrend has developed and has received consent for a system of stormwater ponds which would be affected by the NoR4A and NoR4B and any subsequent works. The submitter considers the Requiring Authorities (RAs) could frustrate implementation of the existing consent. In the event that substitute proposals have to be developed, Altrend is concerned that the RAs could further rely upon the NoR or the subsequent designation in a way that frustrated development of the Puhinui Precinct. The submitter does not identify the land but it may be 454 Puhinui Road and 31 Prices Road, which are on the south side of Puhinui Road and between Prices Road and Orrs Road, of an area approximately 67 hectares, and have an intersection with Puhinui Road at Campana Road. Stormwater devices outside of the extent of the NoRs would not need consent of the RAs. The Puhinui Road / SH20B frontage has relatively extensive cut and fill batter slopes shown on the General Arrangement Plans, and appears to manage the road stormwater runoff within a linear stormwater device north of the BRT, and it may be appropriate for the RA to design a frontage NoR boundary and contour incorporating stormwater management needs. Existing unimplemented consents are part of the 'existing environment', against which the NoRs' effects must be assessed.

Wiri Oil Services Limited (WOSL) NoR4A-08 Neutral but seeks protection of Wiri Airport Pipeline Designation 9700 (WAP). WOSL seeks to ensure the proposed works do not affect the ongoing operation, maintenance and upgrading of the WAP or unduly restrict access to the WAP either during construction or on completion of the project. AT needs to protect the WAP and access to it, including in s177 written approvals from WOSL.

WOSL supports the proposal to prepare a NUMP, which will need to acknowledge the WAP designation requirements for works around the WAP. If NoR4A is confirmed, WOSL seeks to ensure the proposed works are undertaken in a manner that appropriately takes account of and includes measures to address the safety, integrity, protection of and access to WOSL's WAP pipeline. This includes, but is not limited to the following:

- a. Retain the NoR corridor alignment as currently proposed;
- b. Include a designation condition requiring the preparation of a NUMP that addresses, at a minimum, the following matters:
  - i. Consultation with WOSL in the preparation of the NUMP;
  - ii. Physical and legal access to the WAP during works including for maintenance and or emergency works;
  - iii. Measures to ensure the protection of the WAP including adherence to the minimum requirements set out in WOSL's WAP designation 9700 as well as AS/NZS 2885 Pipelines – Gas and Liquid Petroleum and AS/NZS 4853:2012 Electrical Hazards on Metallic Pipelines.
  - iv. Identification of the methods AT will use to liaise with other requiring authorities affected by AT's NoR, including in relation to seeking requiring authority approvals for works where their assets are affected.

I recommend the NUMP condition on NoR4A be amended to include reference to the Wiri Airport Pipeline Designation 9700 conditions and the requirement for s177 consents for works affecting prior Designations. Those amendments are shown in Appendix 5 Suggested Condition Sets.

Fernbrook Property Ltd NoR4A-14 and NoR4B-07 considers NoR4A should take account of the ongoing development in the Puhinui Precinct to provide connectivity to the section of Puhinui Road between Orrs Road and SH20. The NoR4A references the signalised intersection with Campana Road to serve AIAL's park 'n ride but that intersection is also the primary connection for the Precinct to Puhinui Road. AIAL have consented to the realignment of Prices Road to connect to Campana Road but have not yet delivered. Submitter considers:

1. the NoR4A should include the designation of the realignment of Prices Road to link to the signalized intersection with Campana Road.
2. Until AIAL connects to the signalised intersection at Campana Road, NoR4A must allow for the continued reliance on Prices Road intersection with Puhinui Road.
3. NoR4A must recognise that the roading environment can now also accommodate traffic associated with the full development of the Puhinui Precinct.
4. Auckland Council must delete the conditions of consents that allocate a pro-rata share of the permitted traffic movements within the Precinct, in recognition the roading environment can now also accommodate traffic from the full development of the Precinct OR Auckland Council must revise those conditions of consent to account for the reduced total gross land area of the Precinct. Broaden the extent of the NoR4A to include the realignment of Prices Road linking to the signalized intersection with Campana Road.

The NoR4A shows the Project removing the connection to Prices Road, with the remaining part of Prices Road becoming a cul-de-sac as it approaches Puhinui Road / SH20B. That would mean Prices Road needing a new connecting road back to the Campana Road intersection with Puhinui Road / SH20. AT would not normally designate local roads, but wait for them to come through development and subdivision of greenfields land. The issue may be one of timing, as the aerial photos show some ongoing work on surrounding land, including new roads.

In my opinion the NoR4A part of the Project could not be completed to landlock the Prices Road and Puhinui Road fronting properties without an alternative roading network available for access. The Project may not be constructed in the NoR4A for up to 15 years. However, it may be appropriate to include a condition on the NoR4A that Prices Road must continue to have access to and from Puhinui Road / SH20B until alternative access is available for that land, as a contingency if the Project proceeds faster than the development of surrounding land, and I do recommend that.

I do not agree that NoR4A must recognise that the roading environment can now also accommodate traffic associated with the full development of the Puhinui Precinct, but NoR4A does identify future access to and from the Puhinui Precinct opposite Campana Road. The recommendations of the Hearings Panel on the A2B NoRs are to the Requiring Authority Auckland Transport. The Hearings Panel does not have delegation or jurisdiction to delete or vary conditions on third party consents, although it could make a separate recommendation to Council that consents should be varied or the AUP:OP changed to manage Puhinui Precinct traffic differently. I would not recommend to the Hearings Panel that they recommend to the Requiring Authority that the NoR4A be expanded or withdrawn and re-applied over a wider area to include realignment of Prices Road over land which may then need to be compulsorily acquired.

Mark Bishop (Watercare Services Limited ("Watercare")) NoR1-42, NoR2-77, NoR3-36, NoR4A-16, NoR4B-08. Watercare seeks to be engaged before detailed design and during the ongoing design phases to identify opportunities to enable, or otherwise not preclude, the development of new infrastructure within the Project areas. This could involve the development of an "Infrastructure Integration Plan" prior to detailed design with third party infrastructure providers like Watercare (which can also be updated throughout construction of the Project) to ensure that the Project takes into account and appropriately integrates with potential future infrastructure like wastewater and water services.

Watercare supports in depth collaboration and consultation (including information, data sharing and identification of opportunistic works) across infrastructure providers on the development (or redevelopment) of urban environments and wishes to ensure that there is ongoing and timely engagement and collaboration as this Project develops. Watercare seeks early engagement from the requiring authorities for future planning and construction works including prior to detailed design and during implementation of construction works. Early and fulsome engagement with Watercare, along with other infrastructure providers, can enable opportunities to plan and future-proof the delivery of assets to provide for well-functioning urban environments. For Watercare, this includes applying for, in a timely manner, 'Works Over' Approvals, in compliance with Watercare's 'Water Supply and Wastewater Network Bylaw 2015' (updated 2021). Watercare seeks that Auckland Council recommends:

- (a) amendments to the NoRs, including by way of conditions to ensure any adverse effects on Watercare's assets and operations are avoided, remedied or mitigated and to address the concerns set out above.

The Network Utility Management Plan (NUMP) proposed Condition 27 for NoRs1 to 4A and Condition 24 for NoR4B includes consultation with Network Utility Operators, any s.177 consents required for works affecting prior Designations, and consideration of opportunities to coordinate future work programmes with other Network Utility Operator(s), as follows:

**Network Utility Management Plan (NUMP)**

- (a) **A NUMP shall be prepared prior to the Start of Construction for a Stage of Work.**
- (b) **The objective of the NUMP is to set out a framework for protecting, relocating and working in proximity to existing network utilities. The NUMP shall include methods to:**



- (i) provide access for maintenance at all reasonable times, or emergency works at all times during construction activities;
  - (ii) manage the effects of dust and any other material potentially resulting from construction activities and able to cause material damage, beyond normal wear and tear to overhead transmission lines in the Project area; and
  - (iii) demonstrate compliance with relevant standards and Codes of Practice including, where relevant, the NZECP 34:2001 New Zealand Electrical Code of Practice for Electrical Safe Distances 2001; AS/NZS 4853:2012 Electrical Hazards on Metallic Pipelines; and AS/NZS 2885 Pipelines – Gas and Liquid Petroleum and the Wiri Airport Pipeline Designation 9700 conditions.
- (c) The NUMP shall be prepared in consultation with the relevant Network Utility Operator(s) (including Auckland International Airport Limited and Wiri Oil Services Limited) who have existing assets that are directly affected by the Project and shall include any s177 consents required for works affecting prior Designations, and Watercare 'Works Over Approvals'.
- (d) The development of the NUMP shall consider opportunities to coordinate future work programmes with other Network Utility Operator(s) where practicable.
- (e) The NUMP shall describe how any comments from the Network Utility Operator (including Auckland International Airport Limited) in relation to its assets have been addressed.
- (f) Any comments received from the Network Utility Operator (including Auckland International Airport Limited) shall be considered when finalising the NUMP.
- (g) Any amendments to the NUMP related to the assets of a Network Utility Operator (including Auckland International Airport Limited) shall be prepared in consultation with that asset owner.

**Advice Note:**

**For the purposes of this condition, relevant telecommunications network utility operators include companies operating both fixed line and wireless services. As at the date of designation these include Aotearoa Towers Group, Chorus New Zealand Limited, Connexa Limited, One New Zealand Limited, Spark New Zealand Trading Limited and Two Degrees Mobile Limited (and any subsequent entity for these network utility operators).**

**Conclusion**

In conclusion, I propose amendments to the NUMP and SCEMP conditions for all NoRs, and the lapse dates for NoR1 to 4A, as set out in Appendix 5 to this report. I consider that the amended conditions provide a more appropriate framework to avoid, remedy or mitigate the effects of the Project than that proposed by Te Tupu Ngātahi.

**4.4.12 Effects conclusion**

I consider that subject to reduction in extent of the NoRs and the further amendments to the conditions recommended above and included in Appendix 5 to this report, the potential adverse effects on the environment from the construction and operation of the A2B Bus Rapid Transit and associated walking and cycling facilities can be appropriately avoided, remedied or mitigated.

## 4.5 National policy statements

Section 171(1)(a)(ii) requires the council to, subject to Part 2, consider the effects on the environment of allowing the notice of requirement, having particular regard to any relevant provisions of a national policy statement.

### 4.5.1 National Policy Statement on Urban Development 2020 ('NPS:UD')

The objectives and policies of the NPS:UD (of which the AUP:OP has been updated to reflect) seek that urban environments are well-functioning and that people and communities are enabled to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.

The Project is intended to:

- Provide better access to jobs and education for southern and eastern Auckland and increase labour and customer catchments for business;
- Enable a significant increase in public transport usage in the area, increasing the public transport mode share and decreasing travel by light vehicles; and
- Improve integration with existing and future public transport networks.

Te Tupu Ngātahi developed an approach to assessing the likely receiving environment as the Intensification Streamlined Planning Process, implemented by Plan Change 78 of the AUP:OP, is underway but has not been completed.

Plan Change 78 introduces the planning response to Policy 3 of the National Policy Statement on Urban Development (NPS:UD) and the Medium Density Residential Standards as required by the RMA.

Policy 3 of the NPS:UD is of particular relevance to the Project as it requires that Regional Policy Statements and District Plans enable intensification. This means that District Plan zoning must enable a minimum of 6 storeys within walkable catchments of existing and "planned" rapid transit stops. At present Plan Change 78 does not include the required zoning within the walkable catchments of the BRT corridor. Although the BRT corridor meets the definition of "planned", there is no certainty of station locations (and subsequently the walkable catchments) until such time the designations are confirmed. Even then some future station locations may be only indicative (such as I am recommending for a Manukau Memorial Gardens Station), to future-proof the BRT if a later need for a station can be determined.

The implementation of Policy 3 in the NPS:UD could increase the amount of intensive housing within the walkable catchment of the BRT corridor and its stations.

Overall, as reporting planner I consider that NoRs 1 to 4A and NoR4B are consistent with the NPS:UD.

#### 4.5.2 National Policy Statement on Freshwater Management 2020 ('NPS:FM')

The NPS:FM seeks to implement Te Mana o te Wai<sup>2</sup> by prioritising first the health and well-being of water bodies and freshwater ecosystems followed by the health needs of people and then the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

The relevant AUP:OP objectives and policies seek to protect and enhance ecological values across terrestrial, freshwater and coastal environments. The primary method the AUP:OP uses to protect biodiversity is the identification of Significant Ecological Areas (SEAs). These areas receive the highest level of protection. Biodiversity values outside SEAs need to be considered and effects on them addressed.

Significant adverse effects on biodiversity are to be avoided as far as practicable, and where avoidance is not practicable to be minimised. Other adverse effects on biodiversity and ecosystems should be avoided, remedied or mitigated. The provisions recognise that avoidance of areas with biodiversity values is not always practicable for infrastructure. Where biodiversity is affected, measures to protect and restore biodiversity through legal protection and active management should be considered.

The permanent loss and significant modification or diversion of lakes, rivers, streams (excluding ephemeral streams), and wetlands are to be avoided unless, amongst other matters, it is necessary to provide for infrastructure and no practicable alternative exists. The objectives and policies seek to manage subdivision, use, development, including discharges and activities in the beds of lakes, rivers, streams, and in wetlands, to limit the establishment of structures within the beds of lakes, rivers and streams and in wetlands to those that have a functional need or operational requirement to be located there.

While the objectives and policies of the AUP:OP generally seek to recognise the benefits, functional and operational needs and value of investment in infrastructure and to enable the safe, efficient and secure provision of infrastructure where appropriate, the objectives and policies also anticipate that there may be some adverse effects as a result of the provision of such infrastructure. The objectives and policies recognise that in some instances such adverse effects may be appropriate given the necessity of, and essential services provided by, infrastructure.

Although resource consents are not being sought for the Project at this time, ecological effects arising in respect of activities that require consents have been considered to inform alternatives assessment, concept design and the proposed designation and alteration footprints.

In my view, as reporting planner, the NoRs 1 to 4A and NoR4B are consistent with the NPS:FM. Resource consents for later works in or near streams and wetlands will need to consider the NPS:FM.

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<sup>2</sup> A concept that seeks to recognise and protect the health of freshwater in order to protect the health and well-being of the wider environment

#### 4.5.3 National Policy Statement on Electricity Transmission ('NPS:ET')

The relevant objective and policies (1 and 10) of the NPS for Electricity Transmission (**NPS:ET**) and the AUP:OP RPS39 seek to enable and provide for the National Grid, recognising the national significance of the electricity transmission network and to manage the adverse effects of other activities on the network to ensure its operation is not compromised.

The objectives and policies of Chapter B3 of the AUP:OP RPS also encourage co-location of infrastructure where safe to do so and operational and technical requirements are satisfied.

Specific AUP:OP objectives and policies aim to ensure the efficient development, operation, maintenance, upgrading and removal of the National Grid is not compromised by subdivision, use and development by ensuring operational and technical requirements and standards are satisfied.

Overall, as reporting planner I consider that NoRs 1 to 4A and NoR4B are consistent with the NPSET.

#### 4.5.4 New Zealand Coastal Policy Statement ('NZCPS')

The NZCPS contains objectives and policies relating to the coastal environment. Te Tupu Ngātahi consider that the Project NoRs do not relate to the coastal environment. A subsequent stage of the BRT will extend from Orrs Road across Auckland Airport land and may involve widening the bridge over Pukaki Creek, which is within the coastal environment.

#### 4.6 Regional Policy Statement (Chapter B of the AUP) (RPS) and Auckland Unitary Plan district plan provisions

##### **URBAN GROWTH AND DEVELOPMENT CAPACITY**

NPS:UD - Objectives 1 and 6; Policy 1(c), 1(e), 1(f), 3, 6

AUP:OP [RPS] - B2.2.1(1A), B2.2.1(1), B2.2.2(5)(c), B2.4.1(1), B2.4.1(6), B2.4.2(6), B2.5.1(2), B2.5.2(2), B3.2.1(5), B3.3.1(1)(c), B3.3.2(3), B3.3.2(4)(b), B3.3.2(5)(a)

AUP:OP [DP] - E27.2(1), E27.2(2), E27.2(5), E27.2(5A), E27.2(6)

NoRs 1 and 2 only: Flat Bush Precinct [DP] I412.2.1(5)

NoR2 only: Florence Carter Avenue Precinct [DP] I443.2(6)

NoRs 4A / 4B only: Puhinui Precinct [DP] I432.2(7) - (11), I432.3(9)(a), I432.3(c)

- The National Policy Statement on Urban Development (NPS:UD) seeks to ensure urban environments are well-functioning and enable all people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety. Within the NPS:UD, Auckland is recognised as a Tier 1 urban environment and therefore is subject to a greater policy direction in terms of intensification and density of urban form. The NPS:UD directs that urban development is integrated with infrastructure planning and funding decisions and is strategic over the medium to long term.

- The objectives and policies of the AUP:OP seek to provide sufficient feasible development capacity for housing with set dwelling targets over the next 30 years. In order to reach these targets adequate infrastructure must be existing or provided prior to or with development.
- Provisions in Chapter E27 – Transport seek to ensure that land use and all modes of transport are integrated in a manner that realises the benefits of an integrated network and manages the adverse effects of traffic generation.
- Flat Bush Precinct (relevant to NoRs 1 and 2) and Florence Carter Avenue Precinct (NoR3) provisions seek to provide safe, efficient, well connected and integrated transport systems.
- Puhinui Precinct (relevant to NoRs 4A and 4B) provisions seek to provide gateway connections to Auckland Airport, providing connectivity and accessibility for all transport modes whilst recognising and providing for the cultural significance of the area to Mana whenua. The assessment against the objectives and policies of the Puhinui Precinct is addressed together in the Mana whenua theme below.

#### Te Tupu Ngātahi's Assessment

- The objectives and policies emphasise the importance of providing short, medium and long term residential and business capacity. This includes long-term strategic planning for urban development and generally indicates that ad hoc or out of sequence urban expansion is less desirable than that which is planned and integrated. The Project is consistent with these objectives and policies by providing for the necessary transport infrastructure to support the zoning of land and the eventual establishment of the necessary development capacity.
- Proposed designations for the Project will ensure that the necessary transport infrastructure is planned and integrated (and identified in the AUP:OP) to meet the feasible development capacity targets over the next 30 years.
- The Project will protect the land for the construction of a BRT corridor and high-quality walking and cycling facilities, traversing primarily developed urban land. The NPS:UD enables higher density dwellings within a walkable catchment of BRT stations. It is anticipated that zoning within these walkable catchments will enable, at a minimum, buildings of six storeys.
- Beyond walkable catchments and within residentially zoned areas, the MDRS will provide three dwellings up to three storeys in height (subject to meeting the relevant development standards) per site.
- The Project will respond to the accessibility, reliability, and travel choice issues present in public transport services and bus infrastructure connecting southern and eastern suburbs of Auckland and encourage mode shift towards public and active transport.
- Where necessary, Auckland Transport and Waka Kotahi will work with landowners and developers under the process in section 176(1)(b) of the RMA to enable earthworks and development within the proposed designations and alteration to Designation 6717 – provided those works will not prevent or hinder the work authorised by the Auckland Transport designations and NZ Transport Agency alteration to Designation 6717.

- The NPS:UD and AUP:OP recognise the benefits of urban development where they contribute to people’s social, economic, cultural and environmental wellbeing. Of particular relevance to the Project, where good accessibility is provided for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport. The Project will ensure land is protected to contribute to the accessible, high quality, effective, efficient and safe transport routes (including public and active transport modes) that support the movement of people, goods and services for the Airport, Puhinui, Manukau and Botany areas.
- Te Tupu Ngātahi considers that the Project contributes to the achievement of these objectives and policies by designating a BRT corridor and high-quality walking and cycling facilities which will positively contribute to a well-functioning urban environment.

### **ENABLING INFRASTRUCTURE, INCLUDING WITHIN AN OVERLAY**

AUP:OP [RPS] - B3.2.1(1), B3.2.1(2), B3.2.1(3), B3.2.1(4), B3.2.1(8), B3.2.2(1), B3.2.2(3), B3.2.2(6), B3.2.2(7), B3.2.2(8), B3.2.2(9), B3.3.1(1), B3.3.2(1), B3.3.2(3)

AUP:OP [DP] - D9.2(1), D9.3(8), D13.3(2), D17.3(24), D17.3(25), D17.3(26), E17.2(1), E17.2(3), E17.3(1) E26.2.1(1), E26.2.1(2), E26.2.1(4), E26.2.1(9), E26.2.2(1), E26.2.2 (2), E26.2.2 (4), E26.2.2(14), E26.2.2(15) E27.2(1), E27.2(2), E27.2(5)

NoRs 1 and 2 only: Flat Bush Precinct [DP] - I412.2.1(2), I412.2.1(5), I412.2.2(1), I412.3.1(2), I412.3.2(2)

NoR2 only: Florence Carter Avenue Precinct [DP] - I443.2(4), I443.2(6)

NoR3 only: Manukau Precinct [DP] - I425.2(1), I425.3(1)

NoRs 4A and 4B only: Puhinui Precinct [DP] - I432.2(1), I432.2(6)-(11), I432.3(5)-(9)

- Objectives and policies in Chapter B3 of the AUP:OP recognise the importance of infrastructure in realising Auckland’s full economic potential. This includes integrating the provision of infrastructure with urban growth, avoiding incompatible land uses and increasing resilience. The provisions recognise the importance of the transport network in the movement of people, goods and services, urban form, enabling growth, and providing choices.
- Objectives and policies in Chapter E26 of the AUP:OP identify that infrastructure is critical to the social, economic, and cultural well-being of people and communities and the quality of the environment. The development, operation, use, repair, maintenance, upgrading and removal of infrastructure is anticipated, and the benefits infrastructure can have, as well as a range of adverse effects, are acknowledged within the objectives and policies.
- The policies of Chapter B3 seek to enable the development and operation of infrastructure, even in sensitive areas that are scheduled in the AUP:OP in relation to historic heritage, provided adverse effects are avoided where practicable and an operational and functional need to locate in sensitive areas is demonstrated.

- While the objectives and policies of the AUP:OP generally seek to recognise the benefits, functional and operational needs and value of investment in infrastructure and enable the safe, efficient and secure provision of infrastructure where appropriate, the objectives and policies also anticipate that there may be some adverse effects as a result of the provision of such infrastructure. However, the objectives and policies recognise that in some instances such adverse effects may be appropriate given the necessity of, and essential services provided by, infrastructure.
- Flat Bush and Florence Carter Avenue Precincts include provisions for a safe, efficient, well connected and integrated transport system that provides a choice of travel modes.
- Puhinui Precinct recognises that the existing road network is reaching capacity and that substantial transport infrastructure investment is required to support the full development of the precinct. A focus of the objectives and policies is therefore on the provision, staging and coordination of transport infrastructure.

#### Te Tupu Ngātahi's Assessment

##### Land use and transport integration

- The Project is consistent with the infrastructure objectives and policies by providing for a wide range of transport benefits for the community both individually and as part of improving the wider integrated regional network.
- The Project will provide better access to jobs and education for southern and eastern Auckland and increase labour and customer catchments for businesses.
- The Project will enable a significant increase in public transport usage in the area, increasing the public transport mode share and decreasing travel by light vehicles. This includes improving integration with existing and future public transport networks.
- The Project will improve safety when compared to the existing environment. This is through the overall mode shift, and the provision of dedicated walking and cycling facilities along the entire Project corridor.
- The Project will benefit future communities by enabling opportunities for development, particularly around the proposed BRT stations.
- NoR3 will not detract from the objectives and policies of the Manukau Precinct and will positively contribute by enabling a range of transport modes for the community and users of the square.
- NoRs 4A and 4B will enable the provision of infrastructure to support land use development in an integrated manner as required by the Puhinui Precinct.

##### Adverse effects are avoided, remedied or mitigated

- The Project has sought to avoid adverse effects on overlays within the Project area as far as practicable and this is demonstrated through the options assessment process.

- Removal of the two notable trees within NoR3 is necessary to accommodate the BRT and high quality walking and cycling facilities within the road network. Alternative methods that could result in retaining the two notable trees (potentially relocation) will be considered as a matter in the Tree Management Plan (TMP) which is a condition on the proposed designation. If this is not practicable, appropriate mitigation to address the loss of values associated with the notable trees will be determined through the TMP.
- The proposed designations and alteration to Designation 6717 will provide sufficient width to respond to the surrounding land use and potential effects such as removal of street trees and trees in open spaces. This will be supported by a Management Plan framework which identifies key environmental outcomes and design principles that direct further design and assessment.
- The Project contributes to the achievement of these objectives and policies by designating a BRT corridor and high-quality walking and cycling facilities. Within sensitive areas that are scheduled in the AUP:OP there is an operational need to locate the BRT and high quality walking and cycling facilities in the existing road corridor and the adverse effects on notable trees cannot be practicably avoided.

### **NATIONAL GRID**

NPS:ET - Objective, Policies 1, 10

AUP:OP [RPS] - B3.2.1(7), B3.2.2(7)

AUP:OP [DP] - D26.2(1), D26.3(1), E26.2.1(7)

- The relevant objectives and policies of the NPS for Electricity Transmission (NPS:ET) and the AUP:OP RPS seek to enable and provide for the National Grid, recognising the national significance of the electricity transmission network and to manage the adverse effects of other activities on the network to ensure its operation is not compromised.
- The objectives and policies of Chapter B3 of the AUP:OP RPS also encourage co-location of infrastructure where safe to do so and operational and technical requirements are satisfied.
- Specific AUP:OP objectives and policies aim to ensure the efficient development, operation, maintenance, upgrading and removal of the National Grid is not compromised by subdivision, use and development by ensuring operational and technical requirements and standards are satisfied.

Te Tupu Ngātahi's Assessment

- The National Grid Overlay traverses Te Irirangi Drive (NoR1) and Great South Road (NoR2).



- Engagement has been undertaken with Transpower on potential impacts of the Project on their infrastructure. Feedback from Transpower has been incorporated into the concept design and associated designation boundaries. The proposed designation boundary for NoR1 takes into account the location of two Transpower towers. One tower is located within the road reserve (adjacent to 35 Dissmeyer Drive). The second tower is partially within the road reserve and Rongomai Park. The proposed designation boundary provides sufficient width to avoid both towers.
- At detailed design, and through the implementation of the NUMP which is a condition of the proposed designations, ongoing engagement will be undertaken with Transpower. Any potential adverse effects on the National Grid can be managed appropriately.
- The BRT and high-quality walking and cycling facilities contribute to the achievement of these objectives and policies by recognising the national significance of electricity transmission and by appropriately managing any potential adverse effects to ensure its operation is not compromised.

### **MANA WHENUA**

AUP:OP [RPS] - B4.2.1(2), B6.2.1(1), B6.2.1(2), B6.3.1(1), B6.3.1(2), B6.3.1(3), B6.3.2(1), B6.3.2(2)(d), B6.3.2(3), B6.3.2(4), B6.3.2(6), B6.5.1(1), B6.5.1(3), B6.5.1(5), B6.5.2(1), B6.5.2(4), B6.5.2(5), B6.5.2(6), B6.5.2(9), B7.4.1(6)

AUP:OP [DP] - E12.3(1), E12.3(2)(c), E12.3(4)

NoRs 4A / 4B only: Puhinui Precinct Plan I432.2(2), I432.2(4)-(7), I432.3(2)-(4), I432.3(9), I432 (Sub-precincts A and B) Objectives (3), (4), I432 (Sub-precincts A and B) Policies (1), (4)

### **Kaitiakitanga**

- The RPS requires recognition of and provision for the principles of Te Tiriti o Waitangi, in particular through Mana whenua participation in resource management processes.

#### **Te Tupu Ngātahi Assessment**

- The recognition of Te Tiriti o Waitangi underpins the partnership between Mana whenua, Auckland Transport and Waka Kotahi and this has been a key objective for the NoR phase of the Project.
- Mana whenua have been actively involved throughout the development of the Project. This has included through the alternatives assessment and identification of the preferred options.
- The partnership with Mana whenua has involved the identification of opportunities to acknowledge and respond to the cultural landscape along the Project corridor and restore and enhance the natural and cultural landscapes.
- To ensure Mana whenua are involved as partners in all phases of the Project, the proposed designation and proposed alteration to Designation 6717 conditions set out the involvement for Mana whenua in the future design and implementation of the Project.

## Māori values

- The principles of the Te Tiriti o Waitangi are also recognised and provided for in the sustainable management of natural and physical resources, wāhi tapu and other taonga. Sites and places of significance to Mana whenua are recognised and provided for in the objectives and policies of the AUP:OP.
- The Puhinui Precinct also contains objectives and policies requiring the identification, recognition and protection and enhancement of Mana whenua cultural, spiritual and historical values and integration of these values into developments.

## Te Tupu Ngātahi's Assessment

- The partnership approach undertaken with Mana whenua, means that Mana whenua values are embedded in the NoR phase of the Project which gives effect to the provisions of the AUP:OP. Having involved Mana whenua in the development of the Project corridor has enabled the incorporation of Māori world views in the Project decision-making undertaken to date. With respect to future involvement, Mana whenua will be invited as partners in the preparation of management plans and future detailed design through conditions on the proposed designations and alteration to Designation 6717.
- The Project has also recognised Mana whenua cultural values, particularly with regards to the mauri of, and the relationships of Mana whenua with natural and physical resources including freshwater, land, air and coastal resources. Significant adverse effects on these values are required to be avoided, with adverse effects avoided, remedied or mitigated as appropriate.

## **ECOLOGICAL VALUES**

NPS:FM - Objective 1, Policies 6, 7, 8, 9

AUP:OP [RPS] - B7.2.1(2), B7.3.1(3), B7.3.2(1), B7.3.2(4), B7.3.2(5), B7.3.2(6), B7.4.1(4), B7.4.1(5), B7.4.2(1)(a), B7.4.2(1)(d), B7.4.2(7)(b), B7.4.2(9), B7.5.1(2), B7.5.2(1)(f)

AUP:OP [DP] - D9.2(1), D9.3(1), D9.3(2), D9.3(6), D9.3(8), E12.2(1), E12.3(1), E12.3(2)(c), E15.2(1), E15.2(2), E15.3(2), E15.3(3), E15.3, (4)(b), E15.3(7)

- The NPS for Freshwater Management (NPS:FM) objective and policies seek to ensure that natural and physical resources are managed in a way that prioritises first, the health and well-being of water bodies and freshwater ecosystems followed by the health needs of people and then the ability of people and communities to provide for their social, economic, and cultural well-being.
- The relevant AUP:OP objectives and policies seek to protect and enhance ecological values across terrestrial, freshwater and coastal environments.
- The primary method the AUP:OP uses to protect biodiversity is the identification of Significant Ecological Areas (SEAs). These areas receive the highest level of protection. Biodiversity values outside SEAs need to be considered and effects on them addressed.

- Significant adverse effects on biodiversity are to be avoided as far as practicable, and where avoidance is not practicable to be minimised. Other adverse effects on biodiversity and ecosystems should be avoided, remedied or mitigated. The provisions recognise that avoidance of areas with biodiversity values is not always practicable for infrastructure. Where biodiversity is affected, measures to protect and restore biodiversity through legal protection and active management should be considered.
- The permanent loss and significant modification or diversion of lakes, rivers, streams (excluding ephemeral streams), and wetlands are to be avoided unless, amongst other matters, it is necessary to provide for infrastructure and no practicable alternative exists. The objectives and policies seek to manage subdivision, use, development, including discharges and activities in the beds of lakes, rivers, streams, and in wetlands, to limit the establishment of structures within the beds of lakes, rivers and streams and in wetlands to those that have a functional need or operational requirement to be located there.
- While the objectives and policies of the AUP:OP generally seek to recognise the benefits, functional and operational needs and value of investment in infrastructure and to enable the safe, efficient and secure provision of infrastructure where appropriate, the objectives and policies also anticipate that there may be some adverse effects as a result of the provision of such infrastructure.<sup>47</sup> The objectives and policies recognise that in some instances such adverse effects may be appropriate given the necessity of, and essential services provided by, infrastructure.

#### Te Tupu Ngātahi's Assessment

Although resource consents are not being sought for the Project at this time, ecological effects arising in respect of activities that require consents have been considered to inform alternatives assessment, concept design and the proposed designation and alteration footprints.

### **CLIMATE CHANGE AND NATURAL HAZARDS**

NPS:UD - Objective 8, Policies 1(e), 1(f) and 6(e)

AUP:OP [RPS] - B2.2.1(1)(h), B2.3.1(1)(f), B2.3.2(1)(g), B10.2.1(2), B10.2.1(3), B10.2.1(5), B10.2.1(6), B10.2.2(7), B10.2.2(8), B10.2.2(12), B10.2.2(13)(c), B10.2.2(13)(d)

AUP:OP [DP] - E12.2(1), E12.3(5), (6), E36.2(1)-(5), E36.3(21), E36.3(23)-(28), E36.3(35)

- The objectives and policies of the NPS:UD<sup>48</sup> seek to reduce greenhouse gas emissions and enhance resilience to current and future effects of climate change.
- The objectives and policies of Chapter B2 of the AUP:OP seek to enable a quality built environment and well-functioning urban environments while improving resilience to the effects of climate change.

- The objectives and policies of Chapter B10 of the AUP:OP recognise the importance of integrating the provision of resilient transport networks and infrastructure within urban growth areas and avoiding effects in areas subject to natural hazards and risk and adapting to the effects of climate change.
- Specific AUP:OP objectives and policies reinforce the unique requirements of infrastructure and that it can have an operational or functional need to locate within a natural hazard area. Where infrastructure is required to locate within a hazard area significant adverse effect on people and property are sought to be first avoided, and otherwise mitigated to the extent practicable.

#### Te Tupu Ngātahi's Assessment

Particular regard has been given to these objectives and policies. The Project will deliver better accessibility and mode choice by providing a fast, high capacity, reliable and frequent BRT corridor, and high quality walking and cycling facilities, therefore reducing the reliance on low occupancy vehicles.

A number of design measures to provide resilience to flooding, inundation and climate change have been adopted across the Project. The flooding assessment has made recommendations which are to be implemented at detailed design so that:

- There is no increase in flood levels for existing authorised habitable floors that are already subject to flooding; and
- There are no new flood prone areas created.

There is sufficient space within the proposed designations for stormwater and flood mitigation.

The proposed designations provide for street tree planting which improve urban tree canopy cover that, when delivered, will contribute to reducing urban heating resulting from the effects of climate change in the future.

The Project is consistent with these objectives and policies by supporting a reduction in greenhouse gas emissions through modal choice, contribute to reducing urban heat island effects. The Project will generally avoid or mitigate potential adverse effects on people and property in areas subject to flooding.

### **URBAN FORM AND QUALITY DESIGN**

NPS:UD - Objective 4, Policy 1l

AUP:OP [RPS] - B2.2.1(1)(c), B2.2.1(d), B2.2.1(e), B2.3.1(1)(d), B2.3.1(3), B2.3.2(1)(d), B2.3.2(2)(b), B2.3.2(4)

AUP:OP [D] - E12.2(1), E12.3(2), E12.3(3), E17.2(1), E17.2(2), E17.2(3), E17.3(1), E E24.2(1), E24.2(2), E24.3(1), E24.3(1A), E24.3(2), E25.2(1), E25.2(2), E25.3(2), E25.3(5)

NoR3 only: Manukau Precincts [D] - I425.2(1), I425.3(1)17.3(4)

- The objectives and policies seek to create and protect urban environments that are both functional and enjoyable for people, by balancing the place and movement function of transport networks and achieving high levels of amenity and safety for users.
- The NPS:UD acknowledges that the urban environment, including amenity values will develop and change over time in response to the diverse and changing needs of people, communities and future generations.
- To achieve balance between place and movement, the objectives and policies recognise a necessary mode shift, minimising private vehicle travel in favour of public transport, walking and cycling.
- Manukau Precinct seeks to maintain the amenity and function of Manukau Square, while Manukau 2 Precinct seeks to ensure and develop, a range of activities at 640 Great South Road. Both precincts are within NoR3.

#### Te Tupu Ngātahi's Assessment

- The BRT corridor and high-quality walking and cycling facilities integrate with key centres and neighbourhoods to support intensification and compact urban form.
- A ULDMP is proposed as a condition of the proposed designations. The ULDMP will integrate the BRT corridor with the surrounding landscape and urban context and ensure that the Project contributes to a quality urban environment and manages potential adverse landscape and visual effects.
- Amenity of the Project during construction will be managed appropriately through engagement with residents, the community and stakeholders, and through the construction noise and vibration, and construction management plans proposed as conditions of the designations.
- The Project contributes to well-functioning urban environment through the provision of a BRT corridor and high-quality walking and cycling facilities.
- The Project will manage adverse effects on amenity during construction and sets outcomes and further opportunities through the UDLMP to integrate permanent works into the surrounding landscape and urban context.

### **HISTORIC HERITAGE**

AUP:OP [RPS] - B3.2.1(1), B3.2.1(2), B3.2.1(3), B3.2.2(1), B3.3.1(1), B3.3.2(1), B3.2.1(3), B5.2.1(1), B5.2.2(6), B3.2.1(7), B5.3.1(2), B5.3.2(4)(c), B5.3.2(4)(d)

AUP:OP [D] - E26.2.1(9), E26.2.2(4), E26.2.2 (6)

- The RPS recognises the importance of heritage to the identity of Auckland, and the importance of active stewardship to protect it from inappropriate subdivision use and development. The provisions seek to avoid significant adverse effects on scheduled historic heritage, where practicable, and to encourage new development to have due regard to significant historic heritage.

- The policies of Chapter B3 and E26 seek to enable the development, operation and maintenance of infrastructure, even in sensitive areas that are scheduled in the AUP:OP in relation to historic heritage, provided adverse effects are avoided or managed where practicable and an operational and functional need to locate in sensitive areas arises.
- While the objectives and policies of the AUP:OP generally seek to recognise the benefits, functional and operational needs and value of investment in infrastructure and enable the safe, efficient and secure provision of infrastructure where appropriate, the objectives and policies also anticipate that there may be some adverse effects as a result of the provision of such infrastructure. However, the objectives and policies recognise that in some instances such adverse effects may be appropriate given the necessity of, and essential services provided by, infrastructure.

#### Te Tupu Ngātahi's Assessment

- There are no significant adverse effects to built heritage places as a result of the Project. Adverse effects are anticipated as a result of the likely removal of an unscheduled former Gardeners Cottage. This cottage is associated with Cambria House (a scheduled historic heritage extent of place and building).
- A HHMP is condition on the proposed designations and will be prepared at detailed design before construction commences. As part of the HHMP, further research and survey of the Project area, and specific sites, will be undertaken to support a precautionary HNZPTA authority for the Project footprint.
- Any adverse effects to potential previously unrecorded archaeological deposits that are exposed during the works will be mitigated under the provisions of a precautionary HNZPTA authority, and the means of mitigation detailed in an Archaeological Management Plan prepared for the HNZPTA authority application. An authority under the HNZPTA will be sought at a later date prior to construction of the Project.
- The Project is consistent with the objectives and policies as the BRT corridor and high-quality walking and cycling facilities do not impact on scheduled historic heritage. The importance of historic heritage is recognised through the implementation of the HHMP, specific mitigation measures, and providing a precautionary approach to the potential of identifying previously unrecorded sites during construction.

#### **OPEN SPACE**

AUP:OP [D] - E16.2(1), E16.2 (2), E16.3(2), E16.3 (3), H7.2(2), H7.4.2(2), H7.5(1), H7.6.2(2), H7.6.3(4), H7.8.2(1), H7.8.3(2)

- The general objectives and policies of open space zones in the AUP:OP seek to enable infrastructure while avoiding, remedying or mitigating adverse effects on residents, communities and the environment.

- Objectives and policies in Chapter E16 of the AUP:OP seek to protect the cultural, amenity, landscape and ecological values of trees in open space zones and increase the quality and extent of tree cover in open space zones.

#### Te Tupu Ngātahi Assessment

- NoRs 1 – 3 include potential works in open space zones. This includes informal recreation zones, sports and recreation zones, conservation zones and community zones.
- Potential construction effects on amenity values of open space zones can be managed through engagement with residents, the community and stakeholders through an SCEMP, a CNVMP, a CTMP and CEMP to minimise potential effects. A ULDMP is recommended as a condition of the proposed designations which will require all areas be reinstated at the completion of the construction period.
- The Project will provide high quality walking and cycling facilities which will improve connectivity to open space areas, reserves and recreation facilities by active modes.
- Within the open space zones, the effects of tree loss can be mitigated by comprehensive replanting. Replacement planting will be determined through a planting plan for the Project under the ULDMP which is a condition on the proposed designation.
- Where possible, existing stormwater ponds are proposed to be upgraded to increase the capacity of the ponds. Indigenous vegetation will be re-instated with enhancement opportunities identified through the UDLMP where practicable.
- In addition, a TMP will be developed prior to construction to identify the existing trees protected under the District Plan, confirm the construction methods and impacts on each tree and detail methods for all work within the rootzone of trees that are to be retained.
- The Project is consistent with the objectives and policies by providing for infrastructure while avoiding, remedying or mitigating adverse effects on residents, communities, trees and the environment.

#### **RESIDENTIAL**

AUP:OP [D] - H4.2(1), H4.2 (2), H4.2(4), H4.3(1), H4.3(2), H4.3(9), H5.2 (A1), H5.2(1), H5.2(4), H5.2(8), H5.3(C1), H5.3(1), H5.3(8), H6.2 (A1), H6.2(1), H6.2(8), H6.2(4), H6.3(C1), H6.3(1), H6.3(9)

- The objectives and policies of residential zones adjacent to the Project seek to ensure land is efficiently used to provide higher density urban living, increase housing capacity and improve choice and access to public transport.
- Specific objectives and policies also seek to recognise the functional and operational requirements for development, in particular that non-residential activities provide for communities' social, economic and cultural well-being while avoiding, remedying or mitigating adverse effects on residential amenity.

## Te Tupu Ngātahi's Assessment

- The Project will support higher density residential development through designating for a rapid transit service.
- The BRT and high-quality walking and cycling facilities will improve connections to the surrounding residential communities, supporting the movement of people goods and services.
- A ULDMP is a condition of the proposed designations. The ULDMP will integrate the permanent works of the Project into the surrounding landscape and urban context and ensure potential adverse landscape and visual effects are managed.
- It is acknowledged that within NoR3, the proposed BRT bridge structure will have low-moderate to high visual amenity impact on residents dependent on their viewing point (i.e. residential viewing audiences set back from the road corridor will only have an apparent view of the profile of the bridge while viewing audiences on the northern side, directly adjoining Puhinui Road will have the greatest effects due to their proximity and the size and scale of the bridge). In the context of the future environment, development is likely to respond to the proposed BRT bridge structure, given all of Puhinui Road is located within a walkable catchment of a rapid transit stop (Puhinui Station).
- Amenity of the corridors during construction will be managed appropriately through engagement with residents, the community and stakeholders (through the SCEMP), and through the construction noise and vibration, and construction management plans (in particular the CTMP) proposed as conditions of the designations.
- It is considered that the Project contributes to the achievement of these objectives and policies by providing a BRT corridor and high-quality walking and cycling facilities while avoiding, remedying or mitigating adverse effects on residential amenity during construction.

## **BUSINESS**

AUP:OP [D] - H9.2(3), H9.2(5), H9.3(2), H9.3(3), H9.3(12), H11.2(2), H11.2(3), H11.2(8), H11.3(3), H11.3(12), H11.3(20), H12.2(2), H12.2(3), H12.2(12), H12.3(3), H12.3(12), H13.2(2), H13.2(3), H13.2(9), H13.3(3), H13.3(12), H13.3(20), H13.3(21), H14.2(2), 14.2(3), H14.2(8), H14.3(3), H14.3(12), H14.3(21), H17.2(3), H17.2(4), H17.3(4)

- The relevant objectives and policies for all centre zones and the Business – Mixed Use Zone in the AUP:OP seek that development positively contributes towards planned future form and quality, creating a sense of place particularly with regard to streets. This includes providing pedestrian amenity, movement, safety and convenience for people of all ages and abilities.
- The objectives and policies of the Business – Metropolitan Centre Zone seek to reinforce and encourage the development of centres for commercial, community and civic activities and provide for residential intensification.



- The objectives and policies of the relevant business zones also seek to recognise the functional and operational requirements of activities and development while avoiding, remedying or mitigating adverse effects on amenity values and the natural environment of adjacent public open spaces and residential areas.

#### Te Tupu Ngātahi's Assessment

- The BRT and high-quality walking and cycling facilities will positively contribute towards the planned future form and quality of all business zones adjoining the Project corridor. The Project will create a sense of place particularly for streets by providing improved pedestrian amenity, movement, safety and convenience for people of all ages and abilities. The Project will support growth, encourage mode shift and improve access to major employment centres (i.e. Auckland Airport).
- The Project will reduce light vehicle movement, thereby reducing congestion on the State Highway, creating capacity for freight.
- A ULDMP is proposed as a condition of the proposed designations. The ULDMP will integrate the permanent works of each transport corridor into the surrounding landscape and urban context and ensure potential adverse landscape and visual effects are managed.
- Business disruption during construction will be managed appropriately through early engagement with businesses through the DRMP and through the construction management plans (in particular the CTMP) which are conditions proposed on the designations.
- It is considered that the Project is consistent with the relevant objectives and policies of the business zones. The Project will contribute towards the planned future form and quality of centre and business zones, particularly Manukau Central.

Overall, I concur with Te Tupu Ngātahi's assessment of the Project against the AUP RPS and district plan provisions and consider that the A2B NoRs are consistent with the RPS.

#### **NOISE**

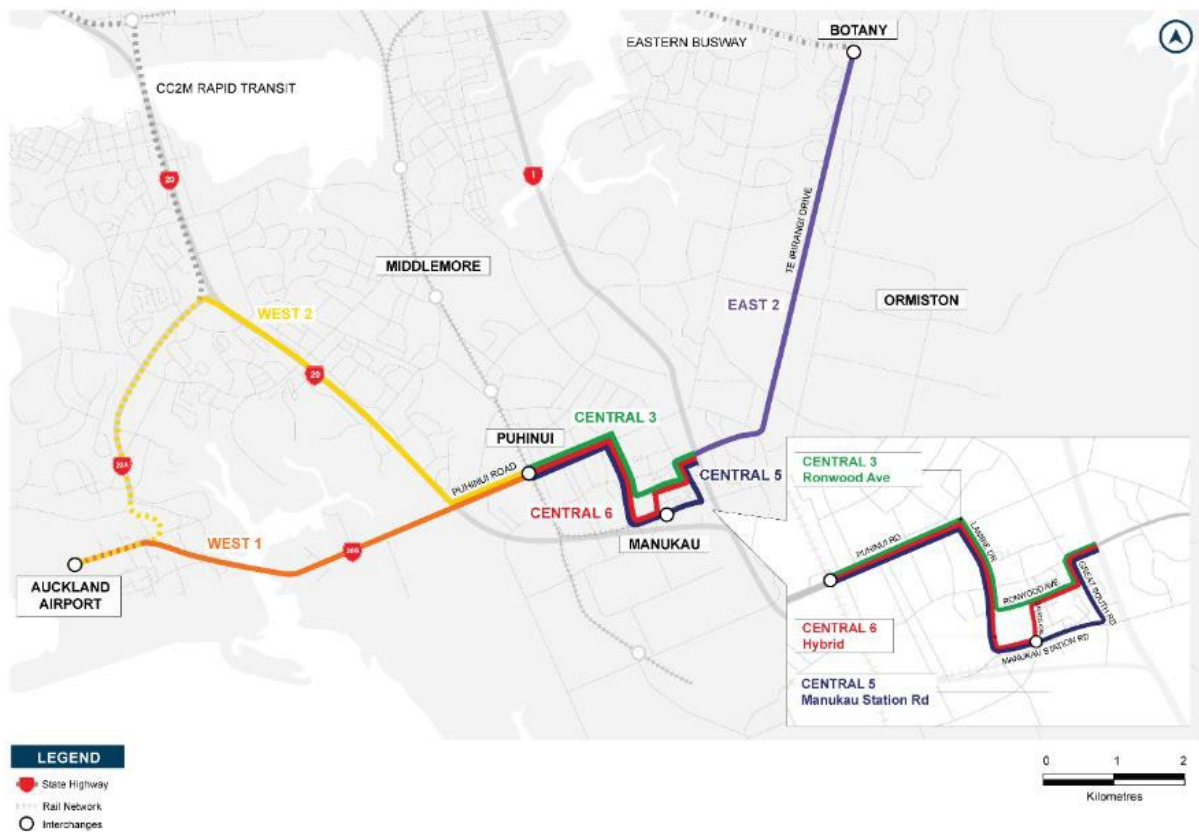
The designations are not required to comply with the district plan level noise and vibration rules, but they are required to take practicable steps to minimise nuisance.

#### **4.7 Alternative sites, routes or methods – section 171(1)(b)**

The RAs do not have an interest in all the land and the effects of the works are likely to be significant. Therefore an assessment of alternative sites, routes or methods is required. The requiring authority for NoR1 to NoR4A assessment of alternatives is summarised in section 4.1 of the AEE and recorded in detail in Appendix A to the AEE. Appendix A to the AEE is a single page 'Optioneering Timeline', Appendix B describes the MCA scoring approach, and Appendix C is the MCA scoring outputs. I have paraphrased the AEE summary as follows:

Options for the rapid transit route and mode were considered using a Multi-Criteria Analysis (MCA) and expert judgement. The assessment process was iterative with inputs from partners, stakeholders, and the public. Generally, the assessment process followed a long list – short list – recommended option process, starting at the broadest feasible area and progressively narrowing the area to a single preferred route. 28 initial route and mode options were developed. These options were then assessed through a high-level sieving process. Options did not progress if they were infeasible or determined to have high implementation risks. The 10 remaining route options formed the long list and progressed through an MCA process.

Following the long list assessment, broadly six options progressed to the short list. These options are set out in the Figure below:



**Figure 4.7 1: Map showing short-list options for the Project**

Following the short list assessment and the consideration of partner and stakeholder feedback, the preferred Project route was identified. This followed Te Irirangi Drive, Great South Road, Ronwood Avenue, Davies Avenue, Manukau Station Road, Lambie Drive, Puhinui Road and SH20B.

Following the confirmation of the preferred Project route from Botany to the Airport, the process of identifying the preferred Project mode (i.e. Bus Rapid Transit or Light Rail Transit) was carried out. This involved customer research, local and international expertise and feedback from programme partners, Mana whenua and stakeholders. A Bus Rapid Transit mode was preferred for the Project based on forecasted demand in 2038.

Additional assessments were undertaken to determine the bus rapid transit corridor placement, side of road widening, station locations, and walking and cycling facility placement. In summary, these assessments concluded:

- The provision of centre-running BRT corridor with the exception of Davies Avenue and SH20B;
- Location and number of BRT stations [which I understand may have some flexibility if patterns of demand location are different when the Project is constructed]; and
- The provision of high-quality walking and cycling facilities including along Cambridge Terrace, Bridge Street and Kenderdine Road.

A gap analysis was undertaken in 2022 following the approval of the SSBC by the Auckland Transport and Waka Kotahi Boards. The purpose of the gap analysis was twofold – to test:

- That alternative options proportional to the scale of potential effects were considered (in accordance with section 171(1)(b) of the RMA); and
- Whether new information had emerged since the completion of the SSBC that would alter the Project.

The gap analysis concluded that some parts of the alignment required further testing based on the above. Following this process, a change was made to the side of road assessment for Puhinui Road.

The completion of this process ultimately informed the recommended Project to progress to the NoR stage. As set out in Appendix A of the AEE, the RAs consider that adequate consideration has been given to alternative sites, routes and methods in a manner that is transparent, robust and replicable.

In my opinion, the information supplied demonstrates that the RAs have satisfied the requirements of section 171(1)(b), in that adequate consideration has been given to alternative sites, routes, or methods of undertaking the work, with the exception that I consider reduced areal extents of the NoRs needs to be investigated further.

### **Alternatives**

Many of the submissions question the adequacy of the Assessment of Alternatives, although do not provide a detailed re-assessment. The submissions generally are in relation to reducing the areal extent of the proposed designations, or staying away from individual houses or minimising the impacts on operation of commercial property, or in using an approach to commercial roads (for example Cavendish Drive) rather than those running through residential areas. Business Manukau NoR2-38 holds concerns that the metrics used to assess the alternatives for the NoR2 did not give sufficient weight to considerations affecting businesses. They believe that Option 5 would impact a smaller number of businesses and would like to understand more clearly why the proposal has chosen Option 6. With regard to Option 6, Business Manukau would like to know what happens to the right turning options from Ronwood Ave into Sharkey Street or Osterley Way (which is currently a roundabout).

Mr Temperley, in reporting on transport-related submissions (Appendix 1 – 1 Transport Memo), responded to the alternative proposal that the BRT should follow an alternative route, e.g. Cavendish Drive, and / or avoid diverting into Manukau City Centre, as follows:

*“Alternative route options were considered during earlier phases of developing the project and found to not be as effective in fulfilling identified investment objectives, including access to jobs, learning, cultural and social activities, as well as journey time efficiency and reliability.*

*An alternative routing of the BRT via Cavendish Drive through Manukau, as specifically suggested by a number of submitters, would not provide effective penetration through the centre of Manukau, which includes a number of high generating retail and commercial activities, civic offices and public transport interchange opportunities. More than half of all journeys that are expected to be undertaken using the new BRT route will have an origin or destination in Manukau, therefore effective penetration of the centre of Manukau is of key importance to the project.*

A number of submissions considered there is no need for the Project and/or proposed alternatives:

- for methods alternative to Designation such as resource consents
- for modes of transport alternative to BRT such as loop buses
- for a more constrained scope such as BRT without cycleways and wider roads, and
- for alternative routes such as through business areas rather than residential areas, or Cavendish Drive rather than Puhinui Road.

A number of submissions considered there has not been adequate consideration of alternatives, both of alternative routes and of ways to reduce the extent of effects on properties and business operations. For most of the specific submitter addresses affected there is a Plan or Map excerpt in the Summary of Submissions Appendix 3, searchable by NoR, submission number and name.

My principal conclusion on NEED, from reviewing the Application, AEE and the submissions, is that the Requiring Authority has demonstrated the need for the Project. The Project will not be constructed immediately for today’s needs, but in up to 15 years time, in part to service growth.

There has in my opinion been adequate consideration of ALTERNATIVES, with the exception that not enough has been done to reduce the extent of the NoRs onto properties, both for the construction works and for the final operational BRT. I consider more use should be made of retaining walls at the Project (road) edges, rather than batter slopes. That would leave the adjacent properties with more useable land and minimise the effects on their site operations. I accept that a retaining wall would not be appropriate in every case, as there may be issues with shading, CPTED, property access, park edge connection to street, and traffic safety. Construction costs of a retaining wall may exceed the cost of the land needed for a batter.

The frontage landowners should also be consulted on the appropriate edge response, as some may prefer a batter slope edge and some a maximised level site area for operations. I understand that retaining walls would still require a construction area extent wider than the NoR final operational extent, and that the construction disruption to build a retaining wall may be greater for a retaining wall than to create a batter slope. My preference would be that this re-design occur now to allow resetting of the NoR extent and Designation boundaries. If it is left to nearer the construction time, then it would need to be included in the Outline Plans, and the property owners and users would have to endure the uncertainty for a longer period. For NoR4A and 4B the State Highway may require run-off shoulders with a batter slope rather than a solid barrier or retaining wall drop, but it is the BRT and walking and cycling facilities that are to be located along the southern edge of SH20B / Puhunui Road.

### **Submissions on Alternatives**

#### **EXISTING INFRASTRUCTURE, TRAINS AND CENTRAL - RUNNING**

The Legends Property Limited NoR2-18 considers that trains should be used more and then would only need Eastern Busway Botany to Panmure.

Mr Martyn Chalmers and Mrs Nurhayati Chalmers NoR2-58 seek use of 80, 82, 84 and 86 Puhinui Road to create a proper transit station separate from the road, allowing Bus Route 36 to use it and providing protection for pedestrians. Extend the Manukau Branch Rail Line through under Westfield, Great South Rd and the Motorway to Te Irirangi Dr and then surface run the train along the central median. Extend a rail line from Puhinui Station to the Airport. Use trolley buses for local access to the rail stations.

Christian Lewis Sims NoR2-63 considers there are already new bus lanes and cycleways in many of the affected areas; In multiple regions the proposed designs retain the number of bus lanes and cycleways, not adding new infrastructure but simply re-organising it to the detriment of the households and families in the area; Many families are being displaced with no real benefit to the community; We already have bus lanes that are filled with empty buses. Mr Sims struggles to believe that moving these lanes to the centre of the road will increase public transport adoption; Many of the affected properties feature large families with multiple generations that require and will continue to require multiple vehicles. He does not believe the proposed infrastructure will change this. What it will do is make it difficult for these families to access their properties and park their vehicles. Already street parking has been reduced and the result of that wasn't fewer cars, but instead, more dangerously parked vehicles.

Mr Sims considers the development of public transport is needed, but it shouldn't come at the cost of displacing so many households. Spending billions of dollars to develop public transport when currently the usage is low doesn't make sense in the slightest. If however, the current infrastructure was at maximum capacity, then this development might make sense. But as it stands, the demand for public transport in these areas does not justify a development of this size. Submitter seeks use an alternative route that doesn't require displacing so many families, focusing on non-residential areas instead. Better utilising the newly developed infrastructure already in place as a stepping stone to prove that there is an actual demand for large-scale public transport developments in this area.

Alan James Steele NoR4A-03 wants to retain existing full road access at 436 Puhinui Road, and seeks that the busway be central-running along SH20B so as to allow access to 436 Puhinui Rd.

### **Need**

Tanaz and Rustom Turel NoR1-15 consider separate bus or cycle lane is not needed, and the existing bus services sufficient and hardly used.

Danny Charanjit Singh NoR1-17 (actually NoR2) considers the Project is not needed, commuters prefer their own transport and public transport is not safe.

Ram Chandar NoR2-04 considers the upgrade is not needed.

Ben Schollitt NoR2-25 considers the Project is not needed, a waste of money and massive disruptions to traffic and mostly important families and house on the roads that will be affected. He considers the current bus lanes and unifying bus lanes from point A to B would be a better spend of money and current better outcomes for all parties and communities.

McAlvin Sembrano NoR2-43 and Roy Sembrano NoR2-70 at 1/192 Te Irirangi Drive, questions the need for 13 by 6m of front of their site has not been justified, and the dimension varies with each property along the street. Most of their front yard is required within NoR2.

### **USE COMMERCIAL NOT RESIDENTIAL AREAS**

Lokesh Gera NoR2-07 would prefer use of Cavendish Drive not Puhinui Road.

Aneeta Krishna NoR2-15 considers the funding should be used for education and healthcare, and that if a BRT is provided it should use Cavendish Drive not Puhinui Road.

Simran Krishna NoR2-35 would prefer use of Cavendish Drive route, not through residential areas like Puhinui Road. He considers current bus services are not busy and not in demand, so cannot justify this Project.

A number of submissions were received from the Mohanlals (on NoR2: Minakshi Mohanlal NoR2-36; Avisha Mohanlal NoR2-37; Abhisekh Mohanlal NoR2-68; Avisha Mohanlal NoR2-69; and on NoR3: Minakshi Mohanlal NoR3-22; Avisha Mohanlal NoR3-21; Abhisekh Mohanlal NoR3-30; and on NoR4A: Avisha Mohanlal NoR4A-05; Minakshi Mohanlal NoR4A-06; Abhisekh Mohanlal NoR4A-12), opposing the NoRs and preferring alternatives such as other uses of roads, one way routes, more traffic signals, better loop buses, and ferries supporting transit rather than BRT. They also consider that underused existing bus services and people working from home means there is less need for the Project.

Fa'ana Campbell NoR2-48 seeks use of Cavendish Drive instead of Puhinui Road, as a direct connection to Te Irirangi Drive and of sufficient width for this Project.

Satnam Bhatt NoR3-39 of 3/266 Puhinui Road considers there is an over-provisioning of the Project which impacts the vast green space and is de-homing a lot of families. Submitter seeks the use of retaining walls to reduce land take.

Kamlesh Rana & 33 Signatories NoR1-09, NoR2-19, NoR3-11, NoR4A-02 and NoR4B-02 are residents of Puhinui Road and object to the designation process on their properties. Some of the signatories have also made separate submissions on their own behalf. Mr Rana states that Auckland Transport failed to provide a proper consultation with the residents of Puhinui Road. Mr Rana proposes a better alternative would be Cavendish Drive, which is commercial and much less destructive to the residential occupants. He considers use of Cavendish Drive and Clendon Road to the SH20B part of Puhinui Road would allow the eastern part of Puhinui Road to save hundreds of vulnerable families' homes.

Mr Rana also considers the Project is not needed, as the current roadway and footpath are sufficient for the public, and the buses on Puhinui Road go empty every 10 minutes. The funding should also go to alternatives such as housing and healthcare. At a finer scale, Mr Rana considers a shared walk/cycle path could be made on both sides of Puhinui Road, taking only half a metre of property depth on each side of the road.

Kim Bloom NoR1-39 considers the BRT connection should be on Lambie Drive where there is more commercial and not residential homes.

### **RONWOOD AVENUE**

Jude Manoharan NoR2-10 of 18 Ronwood Avenue, is unclear why routes are winding through residential and commercial areas, and considers should use Great South Rd / Manukau Station Rd or Cavendish Dr / Lambie Dr.

Renaissance Apartments Body Corporate 316863 18 Ronwood Avenue NoR2-21 considers there has been inadequate consideration of alternatives; the 15 year lapse period and no funding means NoR is premature and not reasonably necessary for achieving AT objectives.

Savitri Devendra NoR2-26 of 18 Ronwood Avenue considers if the buses need to stop at Manukau Bus Station, the simplest and most sensible route would be to use Te Irirangi Drive -> Great South Road -> Manukau Station Road -> Manukau Bus Station. In fact there is no particular advantage in taking a turn to Ronwood Avenue when there is a more straightforward route available and Great South Road and Station Road are already quite wide with two lanes and cycle lanes also in place. Alternatively Great South Road -> Cavendish Drive is another option as Cavendish Drive is also a wider road with two lanes.

Lee Mee Then NoR3-16 (actually on NoR2 18 Ronwood Avenue) considers the NoR3 serves no purpose to the plan as the space doesn't enhance anything at a great waste of taxpayers money.

### **ALTERNATIVES WITHIN MANUKAU CENTRE**

SPG Manukau Limited NoR2-09 is concerned at widening of Lambie Drive including batters rather than retaining wall, and maintenance of two existing two-way site accesses; resource consents for three new businesses including drive-through food and beverage are compromised; submitter would prefer extend alignment westwards to provide signalised intersection for Gilmours and submitter

Kmart NZ Holdings Limited NoR2-39 considers inadequate consideration has been given to alternative sites, routes and methods of undertaking the works for the BRT and in particular alternative routes, sites and methods that would minimise the impact on the Manukau Supa Centa as a whole, in particular, alternatives that minimise land take and adverse effects on the Manukau Supa Centa.

Bunnings Limited NoR2-46 considers inadequate consideration has been given to alternative sites, routes and methods of undertaking the works for the BRT and in particular alternative routes, sites and methods that would minimise the impact on the Bunnings Warehouse Manukau as a whole, in particular, alternatives that minimise land take and adverse effects on the Bunnings Warehouse Manukau. The submitter considers Auckland Transport has also not adequately considered appropriate weighting of the Notice of Requirement criteria along Lambie Drive. In particular, whether the proposed designation boundary and BRT could shift further to the east of Lambie Drive to minimise or even avoid the extent of land required on the western side of Lambie Drive.

PSPIB/CPPIB Waiheke Inc (Owner of Manukau Supa Centa 55 Lambie Drive) NoR2-49 and Auckland Body Corporate Limited NoR2-50 (Controls the common areas of Manukau Supa Centa) consider there has been inadequate consideration given to alternative sites, routes and methods of undertaking the works for the BRT and in particular alternative routes, sites and methods that would minimise the impact on the Manukau Supa Centa as a whole, in particular, alternatives that minimise land take and adverse effects on the Manukau Supa Centa. There has also been a lack of engagement from Auckland Transport through the Multi Criteria Analysis process and assessment of alternatives.

Centuria Capital (1/55 Lambie Drive Bunnings as tenant) NoR2-59 consider AT has not adequately considered alternative methods for undertaking the A2B Project works in the vicinity of the Property, including a retaining wall instead of the batter slopes; Modifying the design of the busway so flanking medians are not needed in the vicinity of the Property; Move NoR2 further to the east of Lambie Drive to avoid or minimise impacts on private land on the western side of Lambie Drive.

General Distributors Limited NoR2-51 considers inadequate consideration has been given to alternative sites, routes and methods of undertaking the works for BTR and in particular alternative routes, sites and methods that would minimise the impact on Countdown Manukau.

Business Manukau NoR2-38 holds concerns that the metrics used to assess the alternatives for the NoR2 did not give sufficient weight to considerations affecting businesses. They believe that Option 5 would impact a smaller number of businesses and would like to understand more clearly why the proposal has chosen Option 6. With regard to Option 6, Business Manukau would like to know what happens to the right turning options from Ronwood Ave into Sharkey Street or Osterley Way (which is currently a roundabout).

Murdoch Newell Management Limited NoR2-17 wants to move the BRT alignment onto Hayman Park, away from submitter's site which is across the road from Hayman Park.



On a business site outside Manukau Centre Paul Street (Street Properties Ltd) NoR1-45 considers a preferred alternative in front of his property at 11 Reg Savory Place would be realignment of the NoR1 through a minor dogleg of the proposed pedestrian path and cycleway towards the dual carriageway along the length of the boundary. He considers this would eliminate the need for any adjustment to the existing boundary, and would also eliminate the need for the proposed 2 metre contractor access strip within the existing boundary. The current tenant is a car sales operation with the entire length of the eastern boundary used to display vehicles for sale. The proposed access strip would, for the duration of the construction period, mean that the tenant would be unable to display his stock for sale and possibly result in him abandoning the existing lease on the basis that the building was no longer fit for purpose. As reporting planner, it is my opinion that using retaining walls rather than batter slopes at the front of some properties would allow more land left to the current owners, although some may be needed for construction activity.

### **ALTERNATIVE ROUTES AND STATIONS OMITTED**

Heather Haylock NoR1-26; NoR2-53; NoR3-26; NoR4A-09; NoR4B-4 made a substantial submission including on alternatives for routes, route options not considered, options for the Airport to Puhinui Station / Puhinui Station to Manukau Station / Manukau Station to Te Irirangi Drive routes, with Ms Haylock critical of the doglegs in the final routes chosen. She considers some earlier heavy rail routes could be used for BRT, even the more recent Puhinui Station to Manukau Station, and that alternatives to the Puhinui Station Bridge should have succeeded. She would like to know why some other options do not appear in the documentation to have been considered at all. Projected passenger numbers do not seem high enough to justify BRT and its stations to her, and she considers other options such as shuttle-buses or vans may be more convenient and useful. In terms of future technologies, Ms Haylock considers there may be better transport solutions than BRT buses.

The Social Impact Assessment (SIA) notes in Appendix B that Westfield Manukau is planning to develop its own public transport hub near Friendship House. The SIA notes Westfield asked that a bus stop be put on Ronwood Ave. Ms Haylock is unsure how this request for a bus stop has turned into an entire BRT station on Ronwood Ave in the NoR documents. She would like this explained to her. If, once again, we go back to the primary objective of getting people from the Airport-Manukau-Botany, this dog-leg seems counter-productive to Ms Haylock, adding to the length, complexity and time of the journey, not to mention the significant portions of commercial land that will need to be taken to fit the BRT into a widened carriageway.

Ms Haylock considers that a much more direct route from Manukau Station to Te Irirangi Drive, would be to take the BRT directly from the Manukau Station along Station Road, up Redoubt Road, down Hollyford Drive (which already has an extremely wide berm for its entire length that would mean no need for property acquisition) to link with Te Irirangi Drive. Ms Haylock is aware that in a number of the NoR documents, taking the BRT along Manukau Station Road and turning onto Great South Road to get to Te Irirangi was discounted as it would interfere too much with the Great South/Manukau Station/Redoubt Road intersection with car and freight traffic. This argument does not seem to have interfered with plans elsewhere on the route to interfere with traffic on existing road ways (e.g., Puhinui, Lambie, Davies, Ronwood, etc). She would like this route to be investigated for its potential for the BRT, including the number of affected residential properties along Redoubt Road that may be affected, and the gradient of the road.

Another option could be going along Manukau Station Road, Great South Road and then to Te Irirangi Drive, to avoid the residential area along Redoubt Road along with the steep gradient of land there. While people closer to Ronwood Ave would not have a dedicated station there under these options, there is the shuttle bus/van idea noted above for the Lambie station catchment, and if walking infrastructure (e.g., covered ways) were improved in the Manukau City Centre streets, it is approximately 700m depending on the route taken, well within the 1km walking distance to a rapid transit station that is quoted elsewhere in the NoR documentation. Ms Haylock would like AT to consider and let submitters know about these other options that do not seem to have been considered in the documentation. These other options would be:

- more direct (avoiding the dog leg around Hayman Park/through Manukau City Centre)
- faster (with less stops)
- requiring the acquisition of fewer residential and commercial properties along the route.

#### Overall Route – role of Puhinui Station

When put on a map, the options Ms Haylock has requested be re-looked at have an obvious detour to the Puhinui Station (as does the proposed BRT in the NoRs). Another option would be to not go through the new Puhinui Station at all. If the true main objective of the project were to link the Airport-Manukau-Botany route directly, this option would seem to directly achieve that objective. This would be another option for AT to report back on.

#### Station Options considered:

It appears from information in the Assessment of Traffic Effects (ATE), the expected numbers of passengers accessing the BRT by the Lambie Drive and Ronwood Ave BRT stations will be well below the expected numbers using other stations, notably the existing Puhinui and Manukau Stations.

This feeds into Ms Haylock's questions about the need to take the BRT route via Puhinui Road, Lambie Drive, etc., with the dog-leg back down Davies and Ronwood Aves.

If the main objective of the project is to get people quickly and efficiently between the Airport-Manukau-Botany, the addition of smaller stations along the way such as Lambie and Ronwood seems to not directly support that objective. (Note, too, that many of the other stations that are not associated with a shopping centre or existing major transit station, are also expecting very low daily boardings – e.g., Diorella, Accent and Smales. These stations should also be looked at again to determine whether they actually assist in achieving the main objective of getting people rapidly between the Airport and Botany.)

#### Lambie Drive

The documentation seems to suggest that the main reason for going along Puhinui Road and having a station at Lambie Drive, is to provide people within walking distance of that station, the opportunity to get on and off the BRT.

#### Wyllie Road area potential station

Given the rationale for the station at Lambie Drive, which has largely been given as serving the residential catchment within walking distance of that station, why then, is there not a similar station to serve those in the Western part of Papatoetoe, in the region of the intersection of Wyllie Road with Puhinui Road?

#### SH20B Potential Station(s)

There is currently significant new development of land that was previously zoned rural, into commercial zoned properties. This is currently mainly occurring on the southern side of SH20B in the vicinity of Prices Road. Given this commercial development, along with the fact that the Manukau Memorial Gardens are a significant destination, it seems bizarre to Ms Haylock that there are no BRT stops planned to serve this area of the route. Those locations are provided with sufficient area for BRT Stations if required in future.

#### **HARD INFRASTRUCTURE/MODE OPTIONS:**

Throughout the NoR documentation Ms Haylock perceives the desire to pursue a hard infrastructure approach to the perceived problem of there not currently being an effective, resilient, frequent, fast way for people to get between the Airport-Manukau-Botany.

Heather Haylock seeks the following recommendations:

- delay continued development of the NoRs until crucial decisions are made about the bridge (or an alternative bridge structure) over Pūkaki Creek.
- require AT to reconsider and research and report back on alternative routes specifically:
  - o BRT route that goes from airport directly to Puhinui Station not using Puhinui Road, but instead in the area of the rejected West 6 and 7 routes + adjacent to existing train line South of Puhinui Station
  - o BRT route on land adjacent to or currently used for the rail link from Puhinui Station to Manukau Station
  - o BRT route without the dog-leg through Manukau City Centre – go directly from Manukau Station, to Great South Road, then up Te Irirangi, or up Redoubt to Hollyford down to Te Irirangi.
  - o BRT route via the rejected West 6 and 7 routes, from Airport to Manukau and on to Botany without going via Puhinui Station at all
- In relation to the route through Manukau centre, and at the same time as reconsidering the need for the BRT route to follow Puhinui/Lambie/Hayman Park/Davies/Ronwood at all, require AT to reconsider, research and report back on the need for the BRT stations that appear to expect relatively low daily passenger boardings including:
  - o Lambie Drive;
  - o Ronwood Ave;
  - o Diorella, Accent and Smales

- require AT to reconsider, research and report back on an additional station location between Puhinui Station and SH20 in the vicinity of the intersection of Wyllie Road with Puhinui Road to serve the residential area of western Papatoetoe that not within easy walking distance of Puhinui Station.
- require AT to reconsider, research and report back on additional station locations between Puhinui Station and the Airport to serve the Manukau Memorial Gardens and the new commercial development occurring on the southern side of SH20b along the proposed BRT route.
- require AT to reconsider and research and report back on the necessity for this hard infrastructure as a response to the perceived problem.
  - o This to include running scenarios of the time it takes to travel by bus now along Te Irirangi Drive from Manukau to Botany, and to trial existing AIR bus Airport-Manukau (no BRT bridge at Puhinui) with Te Irirangi median strip BRT to take passengers directly from Manukau Station to Botany via Te Irirangi Drive rather than on the current 353 or 35 routes.
  - o To also include external research into future technologies and their impact on the value/appropriateness of the fixed-route BRT (e.g., self-drive cars/vans that are agile and able to go via any route);
  - o To show how AT plans to increase patronage of the current poorly used AIR bus route between Puhinui Station and Manukau Station.

The Requiring Authority, Auckland Transport may wish to address the discarded or omitted alternative options in their hearing presentations, as well as the East – West transportation advantages of the proposed BRT route and station configurations.

Mr Shane Robert Haylock NoR2-65 considers consideration of alternatives seems to have been pre-determined, and there is no weighting of criteria to support final scores of alternatives. Proposed station at corner of Lambie and Puhinui is not needed. There is no consideration of routes that avoid residential areas. Seeks replace the Manukau to Puhinui rail line with a bus rapid transit, and widen the bridge at the Airport end to avoid the bottleneck. Mr Haylock also considers there has been insufficient cost benefit analysis to demonstrate need for the Project, and there are already underused buses.

#### **4.8 Reasonable necessity for work and designation – section 171(1)(c)**

The requiring authorities have set out the need for the Project in section 1.3 of the AEE. Auckland's south-western, southern and eastern areas are home to a significant population of 360,000 people and includes two of the seven metropolitan centres in Auckland, a substantial growth area at Ormiston and two of Auckland's largest employment areas at the Airport and in East Tāmaki.

Public transport is currently provided by standard bus services, with no direct connection to Manukau or the Airport from Auckland's eastern areas. Without a new rapid transit connection, large areas of southern and eastern Auckland will remain only partially served by the Rapid Transit Network (RTN).

People living in southern Auckland are heavily dependent on access to Manukau Central, the Airport and East Tāmaki for employment. These areas are not easily accessible by the existing public transport network.

In summary, the following key transport-related issues were identified in the business case process:

- A large gap in the RTN in the southern and eastern suburbs resulting in a poor mode share;
- Poor quality access to employment, including Auckland Airport, Manukau Central, East Tāmaki and community facilities; and
- Increased pressure on the existing transport network as a result of intensification of residential land.

The Requiring Authority Auckland Transport in Forms 18 state the project objectives for A2B NoR 1; A2B NoR 2; A2B NoR 3; and A2B NoR 4A as:

1. Provide a bus rapid transit corridor that connects key destinations from Orrs Road (Auckland Airport boundary), with Manukau City Centre and Botany Town Centre.
2. Enable the provision of public transport and active mode corridors in a matter that:
  - a) is safe for all transport users;
  - b) connects Orrs Road (Auckland Airport boundary), with Manukau City Centre and Botany Town Centre;
  - c) includes efficient, resilient and reliable dedicated public transport and active mode infrastructure;
  - d) contributes to mode shift by improving travel choice and access to key destinations along the corridors;
  - e) connects to existing and planned public transport stations
  - f) integrates with the existing and planned future environment; and
  - g) recognises the future strategic function of the corridor.

The work and designations are reasonably necessary to meet the objectives of Auckland Transport. Refer to *AEE Section 4.2: Project objectives* and *Appendix B of the AEE: Assessment against relevant statutory and strategic planning documents*.

The following project objectives have been developed. The Table below from section 4.1 of the AEE illustrates the line of sight between the Project objectives and the SSBC investment objectives, and then provides an assessment of whether the work and designation are reasonably necessary for achieving the Project objectives:

Relevant NoR/s	SSBC Investment Objectives	RMA Project Objectives	The proposed designations and alteration to Designation 6717 are reasonably necessary to achieve the Project Objectives because they provide for:
NoRs 1 – 4A	<p>Investment Objective 1: More equitable access and travel choices to jobs, learning, cultural and social activities in the south and east of Auckland.</p> <p>Investment Objective 2: Reliable and resilient transport system in south and east Auckland that is easy to use.</p> <p>Investment Objective 3: Transport network that enables the efficient movement of goods and people.</p> <p>Investment Objective 4: Urban regeneration and improved built environment.</p> <p>Investment Objective 5: Reduce impact of the transport system on the environment and Taonga.</p> <p>Investment Objective 6: Safe and secure transport facilities in south and east Auckland.</p>	<p>Enable the provision of public transport and active mode corridors in a manner that:</p> <p>a) Is safe for all transport users</p> <p>b) Connects Orrs Road (Auckland Airport boundary), with Manukau City Centre and Botany Town Centre.</p> <p>c) Includes efficient, resilient &amp; reliable dedicated public transport and active mode infrastructure.</p> <p>d) Contributes to mode shift by improving travel choice and access to key destinations along the corridors.</p> <p>e) Connects to existing and planned public transport stations</p> <p>f) Integrates with the existing and planned future environments.</p> <p>g) Recognises the future strategic function of the corridor</p>	<p>Auckland’s south-western, southern and eastern areas is home to a significant population. Currently, public transport within these areas is provided by standard bus service and only partially served by rapid transit, with no direct connections to key employment areas such as Manukau and Auckland Airport.</p> <p>Within these areas, there is also a lack of safe and separated walking and cycling facilities which means that cyclists need to share road space with general traffic along major arterial corridors.</p> <p>Future growth is projected for Auckland, including the southern and eastern areas and this is likely to increase pressure on the existing transport network.</p> <p>The Transport chapter of the AEE (Section 9.3) demonstrates that the Project addresses these issues by providing:</p> <ul style="list-style-type: none"> <li>• A BRT corridor which will improve access between Botany, Manukau and the Airport; and</li> <li>• Separated walking and cycling facilities which will increase mode shift and improve safety for all users.</li> </ul>
NoR 4B		<p>Provide for the maintenance, operation and improvement of the State Highway 20B corridor while enabling the implementation and delivery of a cycleway and shared path and a public transport corridor.</p>	<p>Therefore, the Project is reasonably necessary to meet the Project objectives.</p>

**Table 4.8 1: Project Objectives**

Auckland Transport’s purpose under section 39 of the Local Government (Auckland Council) Act 2009 (**LGA**) is “to contribute to an effective, efficient, and safe Auckland land transport system in the public interest”. A2B NoR 1; A2B NoR 2; A2B NoR 3; and A2B NoR 4A will assist Auckland Transport in meeting this objective.

The NoRs are reasonably necessary for achieving these objectives because they will:

- Improve public transport access to the south-western, southern and eastern suburbs of Auckland (Section 9.1 of the AEE);
- Provide safe travel choices, supporting Auckland Transport and Waka Kotahi Vision Zero philosophy (Section 9.1 of the AEE);

- Intensification of the corridor by public agencies and private developers (Section 7.5 of the AEE); and
- Improve environmental and cultural outcomes (i.e., increased tree canopy cover and green infrastructure).

### **Submissions on Need for the Project**

A number of submissions questioned the need for the Project. These were mainly on the basis that there is an underused existing public transport network of bus services, that the residents preferred to use and needed to be able to use private vehicles, and that a better train service with more effective local loop buses would be preferable to the proposed BRT Project. A number of submissions also opposed the need for the Project to include the separated roadside cycleways, claiming they are not part of a rapid transit network and would be responsible for the road widening affecting properties and parallel access lanes along Te Irirangi Drive.

Modher and Yessar Barakat, NoR1 17, stated in their submission that walking and cycling facilities are not “reasonably necessary” to achieve AT objectives, and the proposed works fail to achieve the Project objectives. They also state that it is unclear whether repurposing Franco Lane complies with AT statutory functions and powers (ss 45 & 46 LGACA2009) and in AT’s purpose as a requiring authority (s 47(1)), and that the proposed works are not expressly included in functions and powers (s 46). LGACA2009 states in s 39: “*The purpose of Auckland Transport is to contribute to an effective, efficient, and safe Auckland land transport system in the public interest.*” The RA at the hearing may wish to clarify the functions and powers of Auckland Transport, to designate for walking and cycling facilities and implement the Project works as part of the land transport system.

In my opinion, the proposed designations and Alteration to Designation 6717 are reasonably necessary as they identify and protect land required for the Project and will enable Auckland Transport and Waka Kotahi to carry out the proposed works.

### **A2B NoR4B**

For A2B NoR4B, Waka Kotahi state in Form 18 that the proposed work and alteration to the designation are reasonably necessary for achieving the objectives of the requiring authority because:

The objective of Waka Kotahi under Section 94 of the Land Transport Management Act 2003 (LTMA) is to undertake its functions in a way that contributes to an effective, efficient, and safe land transport system in the public interest.

*The Waka Kotahi objective for the proposed work is to provide for the maintenance, operation and improvement of the State Highway 20B corridor while enabling the implementation and delivery of a cycleway and shared path and a public transport corridor.*

*The Project is reasonably necessary for achieving the objectives of Waka Kotahi because it will:*

- *Enable the provision of a BRT corridor improving access between Botany, Manukau and the Airport*

- Provide separated walking and cycling facilities which will increase mode shift and improve safety for all users.

*The proposed designation alteration is reasonably necessary as a planning tool, as it identifies and protects land required for the proposed work and will enable Waka Kotahi to carry out the proposed work. The principal reasons for requiring a designation alteration to facilitate the work to which this requirement relates are:*

- *It will allow the land required to be identified in the AUP:OP, giving a clear indication of the intended use of the land;*
- *It will provide certainty for landowners of the intended use of the land and the work to be undertaken at some time in the future; and*
- *It will protect the land from future development which may otherwise preclude construction of the proposed work.*

#### **4.9 Any other matter – section 171(1)(d)**

Section 171(1)(d) requires the council to have particular regard to any other matter the territorial authority considers reasonably necessary in order to make a recommendation on the requirement. In this case the non-RMA documents are considered relevant.

The requiring authority has provided an assessment against a range of central government and local government plans, strategies and policies in section 12.4 of the AEE. I as reporting planner concur with the assessments and conclusions of the AEE on any other matter, and summarise those other matters as follows:

#### **Government Policy Statement on land transport (GPS) for 2021/22 – 2030/31**

The Government Policy Statement on Land Transport 2021 (GPS) outlines the Government's strategy to guide land transport investment over the next 10 years, influencing decisions on how money from the National Land Transport Fund will be invested across activity classes, such as state highways and public transport. The overall strategic priorities for the GPS are:

- Safety – a safe system, free of death and serious injury;
- Access – a system that provides increased access to economic and social opportunities;
- Climate change – a low carbon transport system that supports emissions reductions, while improving safety and inclusive access; and
- Improving freight connections – improving freight connections for economic development.

The Project provides a BRT corridor and high-quality walking and cycling facilities that will encourage intensification surrounding proposed BRT stations. The corridor improves access to employment and community facilities.

The Project will reduce the risk of DSI's and improve road safety for all users.

The GPS prioritises reduction of greenhouse gas emissions and a shift to active modes, public transport and low emission vehicles. This focus is well aligned to the Project which is forecasted to increase mode shift to public transport and walking and cycling.

Overall, the Project positively contributes towards the strategic priorities in the GPS.



## **Climate Change Response Act 2002**

The main regulatory tool for managing New Zealand's climate change response is the CCRA. The CCRA sets a system of emissions budgets to meet a long term 2050 emissions target (net zero GHG emissions, other than biogenic methane).

The CCRA sets the overarching legal framework to drive domestic emissions reductions to enable New Zealand to meet its international climate change commitments, and to provide a means for identifying and adapting to the effects of climate change that pose a material level of risk to New Zealand now and in the future. Waka Kotahi and Auckland Transport work within this framework and actively consider climate change considerations throughout the business case, optioneering and planning phase of project development. This includes considering how an efficient transport network can be developed that:

- Seeks to reduce carbon emissions from transport infrastructure, particularly in the context of vehicle kilometres travelled (VKT), and
- Seeks to ensure both existing and new transport infrastructure can adapt and be resilient to the effects of climate change.

The CCRA also sets a framework to enable New Zealand to adapt effectively to the consequences of climate change. The CCRA requires risks and opportunities arising from the effects of climate change to be identified through National Climate Change Risk Assessments, and appropriate policy responses to be developed through National Adaptation Plans.

## **Emissions Reduction Plan 2022**

Section 5ZN of the CCRA provides that a person or body may, in exercising or performing a public function, power, or duty conferred on that person or body by, or under law, take into account the following matters "if they think fit":

- The 2050 target; or
- An emissions budget; or
- An emissions reduction plan.

In May 2022 the Government published the first three emissions budgets (for 2022-25, 2026-30 and 2031-35), as well as the national Emissions Reduction Plan (ERP) setting out policies and strategies for meeting emissions budgets.

The first ERP sets the following specific transport targets (relevant targets are bolded):

- 1. Reduce total vehicle kilometres travelled (VKT) by the light fleet (private vehicles) by 20 per cent by 2035 through improved urban form and providing better travel options, particularly in our largest cities;**
2. Increase zero-emissions vehicles to 30 per cent of the light fleet by 2035;
3. Reduce emissions from freight transport by 35 per cent by 2035; and
4. Reduce the emissions intensity of transport fuel by 10 per cent by 2035.

The Project has taken into account transport target 1 as it seeks to connect communities in a manner that assists in reducing vehicle kilometres travelled by light fleet by providing a safe, reliable BRT corridor and high-quality walking and cycling facilities.

Transport targets 2, 3 and 4 in the ERP are more effectively addressed through the other national and regional policy and economic levers set out above which sit outside the RMA and form part of the CCRA framework which is the primary mechanism for regulating responses to climate change in New Zealand.

### **The Thirty Year New Zealand Infrastructure Plan 2015**

The Thirty Year New Zealand Infrastructure Plan makes changes to the current approach to planning and management and to encourage investment in New Zealand's infrastructure while recognising the challenges the country needs to navigate. The Plan envisages that by 2045 New Zealand's infrastructure will be resilient, co-ordinated and contribute to a strong economy and high living standards.

The Plan signals improved public transport connections to Auckland Airport of which this Project will provide a BRT corridor and high-quality walking and cycling facilities.

### **Waka Kotahi Statement of Intent 2021-2026**

This document sets out the vision of te kāpehu – the new strategic direction for Waka Kotahi which is of a land transport system that connects people, products and places for a thriving Aotearoa New Zealand.

The Project provides a safe and reliable BRT corridor and high-quality walking and cycling facilities which enables sustainable travel choice, addresses safety concerns and improves access to employment and social facilities and is consistent with the Waka Kotahi Statement of Intent.

### **Road to Zero: New Zealand's Road Safety Strategy 2020-2030**

Road to Zero outlines a strategy to guide improvements in safety on our roads, streets, footpaths, cycleways, bus lanes and state highways in New Zealand over the next 10 years. The vision of the strategy is a *New Zealand where no one is killed or seriously injured in road crashes*. The strategy focuses on achieving this vision through system management, road user choices, vehicle safety, work-related road safety and infrastructure improvements and speed management. The Project will provide new separated BRT and walking and cycling facilities, resulting in improved safety for those that travel by active mode and public transport as well as private and commercial vehicles.

### **Auckland Transport Alignment Project 2021 – 2031**

The Auckland Transport Alignment Project (**ATAP**) is a joint project involving Auckland Council, the Ministry of Transport, Auckland Transport, Waka Kotahi, the Treasury and the State Services Commission. The final report (April 2018) sets out a clear direction for the development of Auckland's transport system over the next 10 years which is to focus investment on transport projects that deliver broad economic, social, environmental and cultural benefits to Auckland.

The ATAP package specifically notes investment for the route protection of the Project and the purchase of land required for future implementation of the Project.

## **Auckland Regional Land Transport Plan 2018-2028**

The Regional Land Transport Plan (**RLTP**) sets out the funding programme for Auckland's transport services and activities over a 10-year period. Planned transport activities for the next three years are provided in detail while proposed activities for the following seven years are outlined. The RLTP is jointly delivered by Auckland Transport, Waka Kotahi and KiwiRail, and forms part of the National Land Transport Programme.

The RLTP specifically notes investment for the route protection of the Project and the purchase of land required for future implementation of the Project.

## **Auckland Plan 2050**

The Auckland Plan is the long-term spatial plan for Auckland which looks ahead to 2050. The plan outlines the key issues facing Auckland and recommends the way in which Aucklanders and others involved in the future of Auckland can best respond to them.

The Plan identifies the Project as a key public transport investment to be implemented over the next two decades. It also recognises that Manukau is the node for southern Auckland. The civic, retail, education and cultural facilities in Manukau Central provide for the wider population of southern Auckland.

## **Vision Zero for Tāmaki Makaurau: a transport safety strategy and action plan to 2030**

Vision Zero has a goal to eliminate transport deaths and serious injuries by 2050 (in line with the Auckland Plan 2050). The Project will provide new separated BRT and walking and cycling facilities, resulting in improved safety for those that travel by active mode and public transport as well as private and commercial vehicles.

## **Te Tāruke-ā-Tāwhiri: Auckland's Climate Action Framework and Plan**

Te Tāruke-ā-Tāwhiri focuses on three key elements to drive climate action:

- an overarching Tāmaki response
- a focus on clear greenhouse gas (GHG) emissions reduction targets
- preparing Auckland for the impacts of climate change.

The Project will deliver better accessibility and mode choice by providing a fast, high capacity, reliable and frequent BRT corridor, and high-quality walking and cycling facilities, therefore reducing the reliance on low occupancy vehicles.

A number of design measures to provide resilience to flooding, inundation and climate change have been adopted across the Project. The flooding assessment has made recommendations which are to be implemented at detailed design so that:

- There is no increase in flood levels for existing authorised habitable floors that are already subject to flooding; and
- There are no new flood prone areas created.

## **Auckland's Urban Ngāhere (Forest) Strategy**

The strategy recognises the social, environmental, economic, and cultural benefits of our urban ngāhere, and sets out a strategic approach to education, increasing canopy cover and protecting existing trees within urban areas.

The inclusion of berms and green stormwater infrastructure within and adjoining the corridor will provide an opportunity to establish street trees and vegetation suited to the environment which in turn will increase canopy cover in southern Auckland;

## **Local Board Plans**

The Project is situated within two local board areas: Ōtara-Papatoetoe and Howick, and adjacent to a third: Māngere-Ōtāhuhu. The Local Board Plans identify outcomes relating to an improved and well-connected transport system, including active modes, managing growth, economic prosperity and protection and care for the environment.

The Project is consistent with the outcomes of the Local Board Plans as it will provide a BRT corridor and high-quality walking and cycling facilities that integrates with surrounding land uses and the wider transport network.

**The Heritage New Zealand Pouhere Taonga Act 2014** promotes the identification, protection, preservation, and conservation of the historical and cultural heritage of New Zealand. The Project includes conditions that integrate with the process of obtaining an Archaeological Authority from HNZPT and complying with any statutory requirements of an such an authority under the HNZPT Act. HNZPT in their submissions Heritage New Zealand Pouhere Taonga NoR1-37, NoR2-66, NoR3-31, NoR4A-11 and NoR4B-5 express concern that the NoR conditions are duplicating HNZPT functions. However, the AUP:OP does has some role in protection of archaeological sites and Accidental Discovery Protocols (ADP).

### **4.10 Designation lapse period extension – section 184(1)(c)**

Section 184 of the RMA states that designations lapse within five years, if not given effect to, or an extension has been obtained under section 184(1)(b), or unless the designation in the AUP sets a different lapse period under section 184(1)(c).

The Requiring Authority, Auckland Transport has proposed a 15 year lapse period for A2B NoRs 1 – 4A. The requiring authority's reasons for this proposal are stated in AEE section 5.

When considering an extended lapse period, it is appropriate to balance the need for that lapse period against the potential prejudicial or "*blighting*" effects. In the context of the Project, an extended lapse period is considered necessary for the following reasons:

- a) It provides the Requiring Authorities sufficient time to:
  - (i) Undertake the detailed design of the Projects;
  - (ii) Obtain the necessary resource consents;
  - (iii) Procure funding;

(iv) Undertake tendering / procurement; and

(v) Undertake property and access negotiations and other processes associated with the Project construction

b) It provides property owners, businesses and the community certainty on where transport routes will be located (i.e. within the designation boundaries) and within what timeframe (the end lapse date).

c) It supports efficient land use and transport integration by enabling the efficient delivery of transport infrastructure at a time and in a way that is integrated with planned intensification;

Te Tupu Ngātahi notes that:

a) An extended lapse period does not mean that the designation will not be given effect to until the end of the lapse period sought. A lapse period is a limit and not a target.

b) It is not uncommon for infrastructure projects to have a longer lapse period and this has been confirmed on recent projects such as the Drury Arterial Network (Auckland Transport), 2022 Southern Links (Waka Kotahi), 2015, the Northern Interceptor Wastewater Pipeline (Watercare), 2013 and the Hamilton Ring Road (Waikato District Council, Hamilton City Council).

c) Setting an unrealistically short lapse period would not be a significant factor in facilitating earlier availability of funding than is planned at the time the NoRs are sought.

Generally, the effects of an extended lapse period include uncertainty as to:

a) When construction will commence;

b) How long an affected party will be subjected to construction effects and the degree to which they will be affected by those effects; and

c) The form of the potential effects of the future operation of the Project.

In the absence of a specific construction commencement date, and other precise information regarding construction duration within any specific area, TTN considers that the most workable method for managing any outstanding uncertainty associated with the lapse period being sought is ongoing communication. This is discussed further in AEE section 8 and addressed in the conditions of the proposed designations and Alteration to Designation 6717.

Section 184 of the Act gives discretion to alter the lapse period for a designation from the default 5 years. The Environment Court decision in *Beda Family Trust v Transit NZ* A139/04 makes the following statement on the exercise of that discretion in considering a longer lapse period:

*The decision has to be exercised in a principled manner, after considering all of the circumstances of the particular case. There may be circumstances where a longer period than the statutory 5 years is required to secure the route for a major roading project. Such circumstances need to be balanced against the prejudicial effects to directly affected property owners who are required to endure the blighting effects on their properties for an indeterminate period. The exercise of the discretion needs to be underlain by fairness.*

Having considered the reasons provided by Te Tupu Ngātahi for the lapse periods, and particularly the lack of current funding allocation and uncertainty around rate of residential intensification, and balancing them against the potential prejudicial effects to directly affected property owners, I would support a 10 year lapse period for A2B NoRs 1 – 4A. I note that “given effect to” would mean substantial construction commencement and not necessarily ‘fully operational’. If the stages NoR1 to NoR4A are undertaken in that sequence, from Botany Town Centre out to Auckland Airport, the latter stages which are separate NoRs may have an insufficient lapse period, and require extension or re-application.

A2B NoR4B does not require a lapse period as it is an alteration to a current Designation 6717 which has already been given effect.

### **Lapse Period Submissions**

A number of submissions were concerned with the proposed 15 year lapse periods for NoRs1 to 4A.

Kathleen Waller NoR1-16 (actually on NoR3) considers 15 years too long and with no certainty of funding will make selling or altering properties difficult.

Ormiston Centre Ltd NoR2-20 (actually on NoR1) considers the 15 year lapse period to be a blight and uncertainty.

Renaissance Apartments (Body Corporate 316863) NoR2-21 considers the 15 year lapse period and no funding means the NoR2 is premature and not reasonably necessary for achieving AT objectives.

Auckland University of Technology NoR2-22 and Minister of Education NoR2-23 considers the long lapse period provides uncertainty and affects site planning.

Sandeep Kumar NoR2-42 considers the 15 year lapse period means more than a decade of stress, anxiety and uncertainty about the fate of their property, is unfair and uncompensated.

Z Energy Limited NoR2-45 considers the extended lapse period and long construction time frame proposed increases the potential for adverse effects on the ongoing operation, maintenance, and upgrade of the Z site with corresponding adverse social and economic effects.

Centuria Capital (NZ) Limited NoR2-59 considers a 15 year lapse period means uncertainty for affected landowners and a blighting of the properties. There is no certainty of funding or construction timeframe to justify a longer lapse period, given the extent of the land requirement proposed.

Arena Williams MP NoR2-74 and NoR3-33 is concerned at the lack of consultation about the extended lapse period of 15 years that has been proposed. The project proposal states that "there is a need to designate the corridor from inappropriate development until funding is allocated, and therefore a lapse period of 15 years is required". The 15-year timeline also raises further questions why only 20 working days was provided for submissions on this complex project.

Wei Chao Kuan NoR3-09 considers the 15 year lapse period provides uncertainty.

Niksha Farac (Tunicin Investments Limited and Airface Limited) NoR4A-01 considers the 15 year lapse period is too long.

Altrend Properties Limited NoR4A-04 & NoR4B consider the 15 year lapse period provides uncertainty.

New Zealand Storage Holdings Limited NoR4A-07 is concerned at the uncertainty surrounding the timeframe for construction of the Project. NZSHL acknowledges that notices of requirement can be used as a planning tool for route protection (Quay Property Management Limited v Transit New Zealand Environment Court Decision W28/2000, at [123]) however, this purpose must be balanced against the prejudicial effects to directly affected property owners who are required to endure blighting effects on their properties for an indeterminate period (Beda Family Trust v Transit New Zealand A139/2004, at [112]). AT has confirmed that implementation timeframe for the Project is yet to be confirmed and is subject to funding. NZSHL considers that the uncertainty created by having land subject to a notice of requirement for an indeterminate period of time to be unacceptable from a business perspective and not in accordance with good resource management practice. It is premature to apply a designation to the land, particularly with the lapse date requested and at the width sought, when the timeframe for detailed design, funding, landowner engagement and Public Works Act 1981 acquisition processes, and ultimate commencement of the Project, is uncertain.

#### 4.11 Part 2 of the Resource Management Act 1991

##### 4.11.1 Section 5 of the RMA

The purpose of the RMA is set out in section 5(1) which is: *to promote the sustainable management of natural and physical resources.*

Sustainable management is defined in section 5(2) as:

*...managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while –*

- (a) *sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
- (b) *safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
- (c) *avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

##### 4.11.2 Section 6 of the RMA

Section 6 of the RMA states that in achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for specified matters of national importance. TTN identify the following matters of national importance to be relevant to the Project, and I agree with this assessment:

<b>Matter of national importance</b>	<b>Assessment</b>
the preservation of the natural character of the coastal environment (including the coastal	The Project will preserve the natural character of the stream environments through

marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development	reinstatement and mitigation planting at the completion of works.
the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development	The Project avoids outstanding natural features and landscapes.
the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna	The Project traverses a predominantly urban environment and avoids significant ecological areas. Potential impacts on natural wetlands will be assessed and managed through a future consenting process.
the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers	The Project does not impact on public access to and along the coastal marine area, lakes and rivers.
the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga	Mana whenua have been actively involved throughout the development of the Project. This has included through the alternatives assessment and identification of the preferred options. The partnership with Mana whenua has involved the identification of opportunities to acknowledge and respond to the cultural landscape along the Project corridor and restore and enhance the natural and cultural landscapes. The Project has also recognised Mana whenua cultural values, particularly with regards to the mauri of, and the relationships of Mana whenua with natural and physical resources including freshwater, land, air and coastal resources. Significant adverse effects on these values are required to be avoided, with adverse effects avoided, remedied or mitigated as appropriate.
the protection of historic heritage from inappropriate subdivision, use, and development	The Project will not adversely affect scheduled historic heritage sites.
the protection of protected customary rights	The Project does not impact upon any known protected customary rights.
the management of significant risks from natural hazards	A number of design measures to provide resilience to flooding, inundation and climate change have been adopted across the Project. The flooding assessment has made recommendations which are to be implemented at detailed design so that: <ul style="list-style-type: none"> <li>• There is no increase in flood levels for existing authorised habitable floors that are already subject to flooding; and</li> <li>• There are no new flood prone areas created.</li> </ul> There is sufficient space within the proposed designations for stormwater and flood mitigation.

**Table 4.11.2 1: Assessment of A2B NoRs 1, 2, 3, 4A & 4B against section 6 of the RMA**



#### 4.11.3 Section 7 of the RMA

Section 7 of the RMA states that, in achieving the purpose of the RMA, particular regard shall be had to specified other matters. TTN consider the following other matters to be relevant to the Project, and I agree with this assessment:

Other matter	Assessment
kaitiakitanga:	Mana whenua have been actively involved through the NoR phase of the Project and will continue to exercise kaitiakitanga through the future phases of the Project. This includes the preparation of management plans and the involvement of Mana whenua as partners in the detailed design and consenting phases of the Project.
the ethic of stewardship:	This has been recognised through engagement with key stakeholders, business associations, community groups and the wider community who exercise stewardship over particular resources.
the efficient use and development of natural and physical resources:	Through the assessment of alternatives process, the Project was determined to be the most efficient use of natural and physical resources, particularly as it utilises existing transport corridors.
the efficiency of the end use of energy:	Not considered relevant to the Project.
the maintenance and enhancement of amenity values:	The Project has sought to maintain and enhance amenity values through the alternatives assessment and the development of the concept design. This will primarily be achieved through the implementation of the ULDMP which is a condition on the proposed designations.
intrinsic values of ecosystems:	The recommended option and concept design has sought to avoid adverse effects on ecosystems as far as practicable while providing sufficient width within the proposed designation boundaries for further refinement during detailed design.
maintenance and enhancement of the quality of the environment	The Project has sought to maintain and enhance the quality of the environment through the implementation of the ULDMP which is a condition on the proposed designations.
any finite characteristics of natural and physical resources:	Not considered relevant to the Project
the protection of the habitat of trout and salmon:	Not considered relevant to the Project.
the effects of climate change:	The Project responds to the effects of climate change and the reduction of greenhouse gas emissions by providing improved reliability for public transport and high quality walking and cycling facilities. The Project responds to the effects of climate change through the provision of replanting that, when delivered, will contribute to reducing urban heat island effects.

the benefits to be derived from the use and development of renewable energy.	Not considered relevant to the Project
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**Table 4.11.3 1: Assessment of A2B NoRs 1, 2, 3, 4A & 4B against section 7 of the RMA**

#### 4.11.4 Section 8 of the RMA

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

Mana whenua have been involved as a partner throughout the development of the Project. To date this has involved identifying the recommended Project corridor, input into the technical assessments and the development of the NoR conditions. Mana whenua shared that the Project traverses a significant cultural landscape through kōrero at hui, site visits and Cultural Values Assessments (CVA) prepared for the current and previous phases of the Project. Mana whenua identified that maunga, moana, awa, marae and papakāinga are key features of their identity and form the wider cultural context.

Core Māori values were considered in the approach to the Project, with these outcomes seeking to identify iwi aspirations for the Project and underpinned by the principle of ongoing partnership:

Rangatiratanga – Mana whenua perform their role as Partners through all phases of the Project.

Kaitiakitanga - The mauri of the natural and cultural landscapes is restored, enhanced and protected.

Manaakitanga - Future Project decisions are undertaken in a way that recognises the obligation of Mana Whenua to be good hosts.

Wairuatanga - The sense of belonging associated with the spiritual connection Mana whenua have to maunga, moana, awa, marae and papakāinga in the vicinity of the Project area and the wider cultural context is recognised through the future design of the Project.

Kotahitanga - All phases of the Project are undertaken in a cohesive manner which strengthens the relationship between Mana Whenua and wider Project stakeholders.

Whanaungatanga - Through the integration of the Project into the surrounding landscape, people's experience and sense of belonging is enriched.

Mātauranga - The intergenerational knowledge Mana whenua have through whakapapa is shared where appropriate, valued and utilised in future Project decisions.

Mana whenua will be involved as partners in the future phases of the Project and this has been provided for through the conditions on the proposed designations and alteration to Designation 6717. Te Akitai Waiohua Waka Taua Trust lodged submissions (NoR1-46; NoR2-82; NoR3-38; NoR4A-19; NoR4B-11) supporting those proposed conditions.

Accordingly, I consider the Project does take into account the principles of Treaty of Waitangi (Te Tiriti o Waitangi).

## 5 Conclusions

Auckland Transport as the Requiring Authority has lodged NoRs under section 168 of the RMA for projects A2B NoR1; NoR2; NoR3 and NoR4A between Botany Town Centre and Orrs Road at Auckland Airport. Waka Kotahi as the Requiring Authority has lodged A2B NoR4B an Alteration to Designation 6717 over SH20 / SH20B.

### **EXTENT**

My main conclusion is that the physical extent of the NoRs should be reduced, to affect less land and land use operations. This should be mainly by a general preference for retaining walls rather than batter slopes at the road edges. It will not work in every case, as park edges should generally meet the road reserve edge at grade, some sites may have CPTED or shading issues with retaining walls, or exacerbate flood hazard risk, and some adjacent landowners may have a preference for a batter slope over a retaining wall. The business sites are most affected as there are costly operational effects of land take, but the residential sites are also affected by losing front yard amenity and useability, and having an unusable batter slope frontage afterwards. Additional land may also be released from the NoRs if some multi-unit residential is altered or partially demolished rather than a whole site being taken. That may also depend on the ownership structure of the land allowing permission for the partial works.

It is noted that the construction works extent of the NoRs is larger than the final operational extent of the Project, and space would be needed to work on retaining walls, before land could be returned to adjacent landowners. The cost of retaining walls at the frontage may be higher than that of earth-working batter slopes, but less land would need to be acquired and the costly effects on business operations could be reduced. Submitters (Kāinga Ora) and the council Landscape and Urban Design specialists consider it might be possible to perform this reduction in physical extent as part of the OPW, on a finalized design, but I consider the reduction should be undertaken at the time of confirming the designation boundaries, to provide greater certainty of the effects on adjacent land. The final designs at OPW stage can show how much land might be available for return post-construction.

### **FUTURE-PROOFING MANUKAU MEMORIAL GARDENS STATION**

Ensure sufficient space is available within NoR4A to construct a Manukau Memorial Gardens Station, if and when a station is needed there in the future.

### **NOTABLE TREES**

The two notable trees on Puhinui Road will lose their AUP:OP protection when the designation is confirmed. I would prefer to see early mitigation started for the frontage of Cambria House, with heritage-assisted landscape design and planting, including specimen trees to take over from the Magnolia Grandiflora if and when it might be removed to allow construction works. The Tree Management Plan will make the final decision on whether these two notable trees can be retained within the finalised works design.

## **LAPSE PERIOD**

I conclude that the lapse period for NoRs 1 to 4A should be 10 years rather than the 15 years proposed by the RA. This may mean the later stages of the Project will run out of time if they remain as four separate designations. The ten year lapse period is intended to acknowledge there is not yet funding allocated to the Project, and to ensure the RA will provide earlier certainty to the affected landowners and occupants, than might be the case with a 15 year lapse period.

## **CONDITIONS**

Recommendations are made to amend the Proposed Conditions, based on the advice from technical specialists (not all of which I have followed), to avoid, remedy and mitigate adverse effects. Those marked up amendments are in Appendix 5 Suggested Condition Sets. The recommended amendments are extensive and mainly relate to the detail and process of the management plans.

I consider that the five notices of requirement should be confirmed, following a reduction in the areal extent of the NoRs, and subject to conditions and with modifications, for the following reasons:

- The notices of requirement and associated works are reasonably necessary for achieving the objectives of the requiring authority.
- Adequate consideration has been given to alternative sites, routes or methods of undertaking the work identified in the notices of requirement. This consideration is subject to the Requiring Authority Auckland Transport reducing the physical extents of NoR1; NoR2; NoR3 and NoR4A, including by the general use of retaining walls rather than batter slopes at the NoR edges.
- The notices of requirement are generally consistent with the relevant AUP provisions.
- The notices of requirement are generally in accordance with Part 2 of the RMA and relevant national environmental standards and national policy statements.
- Restrictions, by way of conditions, imposed on the designation can avoid, remedy or mitigate any potential adverse environmental effects.

## **6 Recommendation and conditions**

### **6.1 Recommendation**

Subject to new or contrary evidence being presented at the hearing, it is recommended that the notices of requirement be confirmed following a reduction in their physical extents, subject to the amended and additional conditions set out in Appendix 5 to this report.

That pursuant to section 171(3) of the RMA the reasons for the recommendations are as follows:

The notices of requirement (NoRs) are consistent with Part 2 of the RMA in that they enable people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety.

The notices of requirement (NoRs) are consistent with and give effect to the relevant national environmental standards, national policy statements and the AUP:OP.

In terms of section 171(1)(b) of the RMA, adequate consideration has been given to alternative sites, routes or methods for undertaking the work. The reductions in physical extents of the NoRs, by generally preferring retaining walls at the NoR edge over batter slopes, is an alternative I would recommend.

In terms of 171(1) of the RMA, the notices of requirement are reasonably necessary to achieve the requiring authorities' objectives.

Restrictions, by way of conditions attached to the notices of requirement have been recommended to avoid, remedy or mitigate adverse environmental effects associated with the works.

## **6.2 Recommended conditions**

The condition sets recommended by the reporting planner for A2B NoR 1, 2, 3 & 4A (Auckland Transport) and A2B NoR4B Alteration to Designation 6717 (Waka Kotahi NZ Transport Agency) are set out in Appendix 5 Suggested Condition Sets to this report.

**Appendix 1: AUCKLAND COUNCIL SPECIALIST REVIEWS**

**Appendix 2: SECTION 92 REQUESTS AND RESPONSES**

**Appendix 3: SUMMARIES OF SUBMISSIONS BY NOR**

**Appendix 4: SUBMISSIONS AND LOCAL BOARD VIEWS**

**Appendix 5: SUGGESTED CONDITION SETS NoR1 TO 4A;  
NoR4B**

# **APPENDIX ONE**

## **AUCKLAND COUNCIL SPECIALIST REVIEWS**





# Memo (technical specialist report to contribute towards Council's section 42A hearing report)

18 May 2023

To: Trevor Mackie, Reporting Planner

From: Andrew Temperley, Senior Transport Planner, Traffic Planning Consultants

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## **Subject: Airport to Botany Bus Rapid Transit – Notices of Requirement – Transportation Assessment**

### **1.0 Introduction**

1.1 I have undertaken a review of the Notices of Requirements lodged by the Supporting Growth Alliance (SGA), on behalf of Auckland Council in relation to transportation effects.

My name is Andrew Temperley and I am a Senior Transportation Engineer and Planner at Traffic Planning Consultants Ltd (TPC) and have over 21 years of experience in transportation planning and engineering. I hold the qualifications of a Bachelor of Mechanical Engineering with German from the University of Nottingham, UK (1998) and I am a Chartered Transportation Engineer and member of the Chartered Institution of Highways and Transportation (CIHT) in the UK.

1.2 My work experience has included assessing and reporting on new transport proposals and on transportation effects of new urban development proposals. Over recent years, I have been contracted to undertake such work on behalf of Auckland Council.

1.3 In writing this memo, I have reviewed the following documents:

- A2B and 20 Connect Single Stage Business Case
- Airport to Botany Form 18s for NORs 1, 2, 3, 4A and 4B
- Airport to Botany – Assessment of Transport Effects (ATE)
- Airport to Botany – Assessment of Effects on the Environment (AEE)
- Airport to Botany – Response to Section 92 Request
- Airport to Botany – General Arrangement Plans – NORs 1 / 2 / 3 / 4A / 4B

1.4 By way of summary of the detail contained within this memo, I consider that the evidence provided by SGA reasonably demonstrates the expected benefits of the future BRT enabled by the NORs, including safety benefits, benefits for public transport provision and benefits for walking and cycling provisions. On this basis, I would agree that the BRT project and designation are reasonably necessary for achieving identified investment objectives.

1.5 However, I do note potential for adverse transportation effects associated with the proposal, including increased delays for general traffic, particularly during the construction phase, and adverse effects resulting from the removal of pre-

consented parking along the route. Whilst SGA consider these adverse effects to be minimal and manageable, this conclusion is premised on the completed BRT project successfully achieving assumed levels of modal shift to alleviate traffic demands. This outcome may not be immediate, in addition to which, more serious levels of disruption to existing transport networks may be expected during the construction phase, prior to the BRT service being operational.

- 1.6 I additionally remain concerned that the effects of parking removal resulting from the NORs have not been assessed in the ATE and AEE. I would consider effects of parking removal to constitute “effects on the environment of allowing the requirement”, which Council is required to consider at the NOR stage, in accordance with clause 171(1) of the Resource Management Act 1991.

## **2.0 Key Transportation Issues**

- 2.1 Key transportation issues which I identified through my review of the NORs include the following:

- Impact of the new BRT corridor upon the safety of the existing urban road network upon completion.
- Impact of the new BRT corridor upon the operation and congestion of the existing urban road network upon completion, including effects of traffic reassigning to other routes.
- Impact of the new BRT corridor upon the operation and safety of the existing urban road network during the construction phase.
- Impact of the new BRT corridor upon pre-consented parking provisions along the route.

- 2.2 The issues identified above formed the basis for further information requests from SGA, as discussed further in Section 4 of this memo.

- 2.3 Below is a breakdown of the above key issues according to the five separate NORs. In summary, the key transportation issues identified are most prevalent in relation to NORs 1 and 2, due to the more heavily trafficked urban environment along these sections of the BRT route.

<b>Notice of requirement (number &amp; name)</b>	<b>Issues</b>
A2B NoR 1 Bus Rapid Transit – Botany to Rongomai Park	<ul style="list-style-type: none"> <li>• Increases in traffic on feeder routes into Te Irirangi Drive, such as Ti Rakau Drive and Botany Road</li> <li>• Reduced traffic on Te Irirangi Drive (15% to 20%), with some traffic transferring onto Chapel Road</li> <li>• Capacity reductions at key signalised intersections due to BRT corridor requiring space currently occupied by intersection turning lanes. Consequent deteriorations in performance of key intersections.</li> <li>• Adverse effects of capacity reductions expected to be more significant during the construction phase, with no confirmed management plan or strategy for mitigating these effects.</li> <li>• Local property access limited to left-in / left-out movements only, due to solid median on Te Irirangi Drive</li> <li>• No on-street parking spaces required for removal.</li> <li>• Loss of 46 off-street parking spaces from 3 commercial premises.</li> </ul>
A2B NoR 2 Bus Rapid Transit – Rongomai Park to Puhinui Station (in the vicinity of Plunket Avenue)	<ul style="list-style-type: none"> <li>• Increases in traffic on a number of roads in Central Manukau, including Ronwood Avenue, Davies Avenue, Great South Road and Manukau Station Road</li> <li>• Capacity reductions at key intersections due to BRT corridor requiring space currently occupied by intersection turning lanes and conversion of some existing roundabouts to signalised intersections. Consequent deteriorations in performance of key intersections.</li> <li>• Adverse effects of capacity reductions expected to be more significant during the construction phase, with no confirmed management plan or strategy for mitigating these effects.</li> <li>• Local property access limited to left-in / left-out movements only, due to solid median, necessitating some detours of up to 2.5 km. No significant impacts for loading / servicing arrangements.</li> </ul>

	<ul style="list-style-type: none"> <li>• Loss of 117 on-street parking spaces, which typically serve parks, retail / commercial centres and school pick-up and drop-off spaces.</li> <li>• Potential loss of 295 off-street parking spaces from 14 commercial, retail and other premises.</li> </ul>
<p>A2B NoR 3 Bus Rapid Transit – Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange</p>	<ul style="list-style-type: none"> <li>• No notable changes in traffic flows along Puhinui Road, however an increase is observed in daily flows along Noel Burnside Road, due to changes at SH20 interchange.</li> <li>• Rationalisation of local access points along Puhinui Road to accommodate centre running BRT, turning movements limited to left-in / left-out only, resulting in some increases in local travel time of 3 to 4 minutes.</li> <li>• Loss of 21 on-street parking spaces for residential areas.</li> <li>• Potential loss of 20 off-street parking spaces from one industrial, one commercial and one religious land-use activity.</li> </ul>
<p>A2B NoR 4A Bus Rapid Transit – SH20/20B Interchange to Orrs Road</p> <p>A2B NoR 4B Alteration to Designation 6717 State Highway 20B – State Highway 20 to Auckland International Airport (Waka Kotahi NZ Transport Agency)</p>	<ul style="list-style-type: none"> <li>• <i>Capacity reductions and consequent increases in delay at key intersections as a result of the BRT are not expected to result in significant adverse safety and operational effects.</i></li> <li>• <i>Proposed designation has no effect on local property access</i></li> <li>• <i>No on-street parking spaces required for removal.</i></li> <li>• <i>No off-street parking spaces identified for removal.</i></li> </ul>

### 3.0 Supporting Growth Alliance assessment

3.1 SGA's ATE assesses the transportation and safety effects of the NORs utilising the following key tools:

- The Crash Analysis (CAS) database system
- The Auckland Macro Strategic Model (MSM)
- A traffic assignment model (Airport to Botany Traffic Model)
- A strategic active mode (walking / cycling) model (SAMM)
- SIDRA modelling to understand changes in intersection operation and efficiency
- A more detailed AIMSUN operational model of the BRT corridor

3.2 On the basis of the ATE's analyses, the ATE concludes that the completed BRT will result in safety benefits and positive benefits for public transport, walking and cycling. Overall, I accept this conclusion and the methodology followed to reach it.

3.3 However in terms of effects on general traffic, the ATE's assessment indicates a number of adverse effects resulting from the implementation of the BRT, such as reductions in intersection capacities through removal and curtailing of approach lanes. This is expected to result in increased intersection delays and traffic reassigning to alternative routes in some cases.

3.4 SGA refer to modal shift resulting from the completed BRT proposal as the primary means by which these effects will be mitigated. However, this will not be the case during the construction phase for the project, and at the time of writing, SGA have not undertaken a capacity assessment of the adjoining road network which account for potential traffic effects during the construction phase.

3.5 The transport conditions for the NORs include the preparation of Construction Traffic Management Plans (CTMPs) to avoid, remedy, or mitigate the adverse construction traffic effects as far as practicable. However, I remain concerned that insufficient evidence is available to understand the scope and nature of problems to be addressed during the construction phase and appropriate means for managing travel demand during this time.

3.6 As noted earlier, the proposed removal of pre-consented parking along the route could result in adverse effects. However, SGA have not assessed the effects of parking removal, citing the removal of parking minimums from the Auckland Unitary Plan through National Policy Statement for Urban Development as justification for considering the effect to be 'relatively minor'.

3.7 However, as discussed in Section 4 of this report, Unitary Plan Policies set out under E27.3 still apply and I consider that this should constitute a basis on which to undertake a full assessment of the effects of parking removal.

## 4.0 Assessment of Transportation effects and management methods

- 4.1 In reviewing SGA's ATE for the NOR corridors, I would consider that the overall scope of transportation effects assessed within the receiving environment is appropriate and that the BRT project and designation have been demonstrated to be reasonably necessary for achieving identified investment objectives.
- 4.2 Consideration of alternative proposals and means of fulfilling the strategic objectives of the proposed BRT route were the subject of predecessor work, including the Single Stage Business Case for Airport to Botany Rapid Transit and 20 Connect. In addition, the A2B AEE includes an Assessment of Alternatives, which recaps alternative options and alternative routes previously considered for fulfilling investment objectives. Overall, I am satisfied that due consideration has been given to alternative means of fulfilling the identified strategic objectives of the NORs and that the BRT proposal in its current form is appropriate.
- 4.3 However, I remain concerned in relation to adverse traffic and parking effects that have been identified, but for which appropriate management plans have not been developed at the time of writing.
- 4.4 In reviewing supporting information for the NORs following soft lodgement and formal lodgement, I identified the following information gaps, which formed the basis for requests to SGA for further information.

Information Gap		SGA Response
Consideration of alternative routes through Botany Town Centre and corresponding ease of pedestrian accessibility	Please consider, or confirm previous consideration of options to achieve better penetration of Botany Town Centre, such as by means of a loop with multiple stops.	Work previously covered as part of predecessor business case process.
Capacity constraints on wider network during Construction phase	AEE and ATE assess 'no project' and 'full build out' scenario, but not the interim construction phase, estimated to be some 4 to 6 years, which will result in capacity constraints being imposed on the network, but without the benefit of the BRT service to relieve traffic and parking pressures.	The preparation of a Construction Traffic Management Plan (CTMP) is required as part of the proposed conditions. [...] We do not consider that additional analysis is appropriate to understand the construction traffic effects at this stage. [...] Any mitigatory measures to manage adverse construction traffic effects will be appropriately addressed through the CTMPs.

<p>Consideration of further mitigatory measures to improve network performance, particularly in Manukau where significantly poorer Levels of Service are noted at key intersections</p>	<p>Particular 'hotspots' noted included:</p> <ul style="list-style-type: none"> <li>• Great South Road / Ronwood Avenue</li> <li>• Puhinui Road / Plunket Avenue</li> <li>• SH20B / Campana Road</li> </ul>	<p>Mode shift towards public transport is a key outcome of the Project. Modal priorities are expected to change over time with less priority given to general traffic flow. In this regard, the future operating environment is anticipated to tolerate increased delay and queuing for general traffic, at certain intersections, at certain times.</p> <p>Travel Demand Management measures are already in place over the SH20B / SH20A / SH20 triangle, including ramp metering, which will serve to manage flows through the SH20B Campana Road intersection.</p>
<p>Assessment of Removal of pre-consented Parking</p>	<p>While minimum parking requirements have been removed from the Auckland Unitary Plan as a result of the National Policy Statement for Urban Development, we consider it is necessary to assess the proposed NORs against the transport objectives and policies of the Unitary Plan.</p> <p>The transport objectives set out in E27.2 of the AUP include objective (3): "Parking and loading supports urban growth and the quality compact urban form" and (4): "The provision of safe and efficient parking, loading and access is commensurate with the character, scale and intensity of the zone".</p> <p>The AUP's policies set out in E27.3 include policy (3) which relates to parking, and</p>	<p><i>No specific response from SGA in relation to this NOR review.</i></p>

	<p>is to “manage the number, location and type of parking and loading spaces, including bicycle parking and associated end-of-trip facilities to support all of the following:</p> <p>(a) the safe, efficient and effective operation of the transport network;</p> <p>(b) the use of more sustainable transport options including public transport, cycling and walking;</p> <p>(c) the functional and operational requirements of activities;</p> <p>(d) the efficient use of land;</p> <p>(e) the recognition of different activities having different trip characteristics; and</p> <p>(f) the efficient use of on-street parking.”</p>	
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4.4 In response to the above feedback from SGA, I remain concerned that traffic modelling undertaken to date does not give an adequate insight into how the network will perform during the construction phase, under which the completed BRT would not be operational as a means of managing travel demand.

4.5 While I accept a prospective CTMP as an appropriate tool to implement appropriate mitigatory measures, I would consider that further evidence is required to understand the scope and nature of future network operational issues. Such evidence could provide a basis to establish minimum network performance parameters to be achieved during the construction phase and inform appropriate strategies for managing network disruptions and travel demand.

4.6 At the time of writing, further legal advice is awaited from Auckland Council on whether the parking impacts of the NORs should be considered as part of the “effects on the environment of allowing the requirement” that Council is required by clause 171(1) of the Resource Management Act 1991 to consider at the NOR stage.



## 5.0 Submissions

5.1 Following notification of the NORs on 10 March 2023, the period for submissions closed on 11 April 2023. A total of 190 submissions were received across the five NORs, summarised as follows:

NoR	No. of submissions	Submissions including Transportation comments
NoR 1: Botany Town Centre to Rongomai Park (Auckland Transport)	46	32 (70%)
NoR 2: Rongomai Park to Puhinui Station in the vicinity of Plunket Avenue (Auckland Transport)	82	57 (70%)
NoR 3: Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange (Auckland Transport)	39	18 (46%)
NoR 4a: SH20/20B Interchange to Orrs Road (Auckland Transport)	19	12 (63%)
NoR 4b: Alteration to Designation 6717 (Waka Kotahi NZ Transport Agency).	11	5 (45%)
<b>Total</b>	<b>197</b>	<b>124 (63%)</b>

5.2 The following sub-sections summarise the most common transportation related comments raised for each individual NOR in turn, along with my comments.

### NoR 1: Botany Town Centre to Rongomai Park

Transportation Issue Raised	No. Respondents	
Opposition to proposed walking & cycling provisions	10	
Limit physical scope of BRT to central median/existing road reserve	9	
Concern of adverse Parking effects	8	
Concern relating to local access	Residential	6
	Commercial	6
	Education Activity	1
Concern over Construction traffic effects	6	
Concern over traffic impact on Te Irirangi Drive	5	
Concern over safety impact on Te Irirangi Drive	4	
BRT should follow an alternative route, e.g. Cavendish Drive	3	
BRT not warranted due to currently low public transport demand	2	
Concern over impact on freight traffic movements	1	
Concern over increased 'exposure' to main road ( <i>due to proximity of live traffic lanes to private property</i> )	1	
Retain existing pedestrian over-bridge over Te Irirangi Drive	1	

### 5.3 **Transport Issue: Opposition to proposed walking & cycling provisions**

Work undertaken to develop the Airport to Botany BRT route identified a lack of safe and dedicated walking and cycling facilities within the study area, contributing to a poor uptake in travel by active modes.

The proposed walking and cycling route running parallel to the BRT route was considered appropriate in providing a safe and attractive route for such travel by active modes, which includes walking and cycling journeys with onward connections to public transport.

### 5.4 **Transport Issue: Limit physical scope of BRT to central median/ existing road reserve**

In addition to the actual BRT route following the central median of Te Irirangi Drive, other key elements of the project, such as walking and cycling facilities and key intersection improvements and alterations, are important elements of the project which contribute towards achieving key outcomes, such as catering for end-to-end journeys and effectively managing any adverse traffic effects.

### 5.5 **Transport Issue: Concern of adverse Parking effects**

The BRT is expected to reduce parking demand as a result of modal shift to public transport.

However, in instances where pre-consented parking is potentially to be removed from a site which sits within the NOR designation, proposed new parking and access layouts should be assessed against transport objectives and policies set out in the Auckland Unitary Plan under E27.2 and E27.3, to ensure that either appropriate parking stock is retained or else that appropriate alternatives are available. The Unitary Plan Transport Objectives and policies in question are as follows:

#### E27.2

(3) Parking and loading supports urban growth and the quality compact urban form

(4) The provision of safe and efficient parking, loading and access is commensurate with the character, scale and intensity of the zone.

#### E27.3

##### *Parking*

(3) Manage the number, location and type of parking and loading spaces, including bicycle parking and associated end-of-trip facilities to support all of the following:

(a) the safe, efficient and effective operation of the transport network;

(b) the use of more sustainable transport options including public transport, cycling and walking;

(c) the functional and operational requirements of activities;

(d) the efficient use of land;

(e) the recognition of different activities having different trip characteristics; and

(f) the efficient use of on-street parking.

## 5.6 **Transport Issue: Concerns relating to local access**

### *General*

In the case of designated properties fronting arterial roads, such as Te Irirangi Drive, where removal of parking and access space is proposed, new parking and access layouts should be designed to comply with appropriate requirements of the Auckland Unitary Plan Transport Chapter. These include limiting the provision of new access points and the provision of appropriate on-site space for parking / loading and manoeuvring, to negate the need to reverse onto or off an arterial road.

### *Residential*

It is noted that most concerns raised in submissions relating to residential property access along the NOR 1 route relate to dwellings which are accessed via parallel service lanes, which are to be retained as part of the BRT project.

During the construction phase, appropriate Construction Traffic Management Plan conditions should ensure retention of local property access. Where front lots are designated, access to rear lots is to be established to an adequate standard.

### *Commercial / Retail*

Commercial and retail premises along the route of NOR1 who expressed particular concerns in relation to vehicular access included the Botany Junction local retail centre and Botany South Retail Park, adjacent to the intersection of Te Irirangi Drive / Ormiston Road. Management of these premises requested the inclusion of conditions to ensure that local access routes serving these areas and parking provisions be retained both during construction and upon project completion.

As the completed project does not affect access provisions to these sites from the public road network, nor reduce parking stock, I would not consider further conditions to be warranted. CTMP conditions for all NORs include the requirement for *methods to maintain vehicle access to property and/or private roads where practicable, or to provide alternative access arrangements when it will not be*. I would deem this to be appropriate for addressing these submitter concerns.

## 5.7 **Transport Issue: Concern over Construction Traffic Effects**

As noted above, CTMP conditions for all NORs include the requirement for *methods to maintain vehicle access to property and/or private roads where practicable, or to provide alternative access arrangements when it will not be*.

Other CTMP conditions refer to the management of heavy vehicle movements and mitigation against adverse effects such as dust and noise.

## 5.8 **Transport Issue: Concern over Traffic Impact on Te Irirangi Drive**

While some submissions for NOR 1 raised concerns in relation to worsening traffic congestion, forecast congestion levels at key intersections specifically on Te Irirangi Drive are not expected to worsen significantly as a result of the BRT project.

While some parts of the BRT route and adjoining roads to the southwest through Manukau are expected to experience higher levels of congestion, this is expected to be offset over the longer term by modal shift to the BRT, thus reducing car travel

along the route and in turn, reducing congestion and improving journey time reliability.

#### **5.9 *Transport Issue: Concern over Safety Impact on Te Irirangi Drive***

Assessment of safety effects confirms that safety is expected to improve as a result of improved walking and cycling provisions, reduced vehicular travel demand due to modal shift to public transport and consequent reduced exposure of vulnerable road users to traffic safety risks.

The use of signal control at intersections and removal of some 'Give Way' access points is also expected to contribute towards a safer environment.

Improvements to pedestrian and cycling infrastructure as part of the project are also expected to improve perceptions of safety within the study area, which evidence suggest limits uptake of public transport and active modes of travel.

The outcome of the safety assessment is deemed to be acceptable.

#### **5.10 *Transport Issue: BRT should follow an alternative route, e.g. Cavendish Drive***

Alternative route options were considered during earlier phases of developing the project and found to not be as effective in fulfilling identified investment objectives, including access to jobs, learning, cultural and social activities, as well as journey time efficiency and reliability.

An alternative routing of the BRT via Cavendish Drive through Manukau, as specifically suggested by a number of submitters, would not provide effective penetration through the centre of Manukau, which includes a number of high generating retail and commercial activities, civic offices and public transport interchange opportunities. More than half of all journeys that are expected to be undertaken using the new BRT route will have an origin or destination in Manukau, therefore effective penetration of the centre of Manukau is of key importance to the project.

#### **5.12 *Transport Issue: BRT not warranted due to currently low public transport demand***

Work undertaken as part of the Business Case for the BRT identified a gap in Auckland's Rapid Transit Network (RTN), in terms of the lack of rapid, efficient and reliable public transport and poor public transport mode share in south-west, south and east Auckland. The A2B BRT is one key project which contributes towards addressing this deficit.

While existing bus services in the study area have been recognised as having relatively low patronage, future use of the new BRT is expected to primarily comprise new public transport usage either undertaking new journeys or transferring from car-based trips. Key factors to attracting new public transport users include the perceived attractiveness of BRT over regular bus transport, the ability of the BRT to offer efficient and reliable journey times and providing direct linkage to strategic and high trip generating locations and land-use activities.

**5.13 Transport Issue: Concern over impact on freight traffic movements**

The Assessment of Transport Effects (ATE) Report undertaken to support the NORs confirms that long term impacts on freight movements are expected to be minimal, with Te Irirangi Drive continuing to fulfil a strategic freight function. As noted above, the BRT is expected to contribute towards modal shift away from car travel, thus reducing congestion and improving journey time reliability along Te Irirangi Road for all vehicular traffic in the long term.

**5.14 Transport Issue: Concern over increased 'exposure' to main road (due to proximity of Te Irirangi Drive live traffic lanes to private property)**

The BRT project does not in fact result in any relocation or realignment of the existing traffic lanes. As noted above, the BRT is expected to result in modal shift from existing vehicular traffic along the route, thus reducing traffic volume and noise along Te Irirangi Drive in the longer term.

**5.15 Transport Issue: Retain existing pedestrian over-bridge over Te Irirangi Drive**

The rationale for converting all existing over-bridges on Te Irirangi Drive to at-grade pedestrian crossings is that enables more convenient access by disabled people, vulnerable road users and active modes of travel, which I support.

NoR 2: Rongomai Park to Puhinui Station (in the vicinity of Plunket Avenue)

Transportation Issue Raised		No. Respondents
Concern relating to local access	Residential	12
	Commercial	11
	Retail activity	13
	Place of Worship	1
	Emergency Services	1
	Education Facilities	1
Concern over Construction traffic effects		24
Concern of adverse Parking effects		20
BRT should follow an alternative route (e.g. Cavendish Dr)		16
Concern over Pedestrian access		11
Segregated bus route not needed / Poor patronage of existing bus services		9
Concern over Safety impact		9
Concern over Traffic impact		8
Consider alternatives, e.g. routing along alternative roads, one-way road, more traffic signals, etc. / Use of trains		8
Concern that too much land has been designated		5
Lack of consideration towards alternative sites, alternative construction methods, etc.		4
Concern over impact on freight traffic movements		3
Ensure appropriate locations for bus stop infrastructure and facilities for BRT		3

Limit physical scope of BRT to central median/existing road reserve	1
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## 5.16 **Transport Issue: Concerns relating to local access**

### *General*

See comments under para. 5.6

The ATE notes that properties affected by the NOR will be limited to having left-in / left-out access only and will be required to use alternative routes for access, with estimated increases in travel distance of no more than 2.5 km. Some of the effected properties already have existing alternative access points serving more than one site boundary and providing alternative access means onto the wider network.

### *Residential*

Residential locations encompassed by NOR 2 which were the subject of concerns raised by submitters in relation to local access included multi-storey apartments in central Manukau, residential dwellings directly fronting Te Irirangi Drive and Puhinui Road and Auckland University residences.

### *Commercial & Retail*

Commercial and retail premises along the route of NOR2 who expressed particular concerns in relation to vehicular access included the following particular clusters:

- Larger retailers along Lambie Drive, including the Manukau Supa Centa, Bunnings Warehouse, Mitre 10 Mega, Kmart
- Larger retailers on Cavendish Drive, including Harvey Norman and Pak n Save
- Food retailers at corner of Great South Road / Cavendish Drive intersection
- Retailers adjacent to corner of Te Irirangi Drive / Great South Road
- Westfield Manukau, in relation access from Ronwood Avenue adjacent to the proposed BRT Station on this frontage, including ensuring retention of emergency vehicle access
- Retail and commercial premises fronting the northern side of Ronwood Avenue

In response to concerns relating to access constraints resulting from left-in / left-out turning manoeuvres, the grid configuration of the adjoining road network within Central Manukau provides ample alternative opportunities for alternative vehicle movements in the absence of being unable to undertake right turns into and out of roads used by the BRT.

The ATE confirms that where right turn access is removed at certain properties because of the centre running BRT corridor, access via alternative routes will have an additional resultant travel time of around 3 to 4 minutes. While this may be perceived as inconvenient by existing road users, the additional journey time is considered to be comparable with car-based journeys in other city centre and metropolitan centres such as Downtown Auckland, which are characterised by one-way systems and limitations on turning movements at key intersections.

In response to concerns to maintain access during the construction phase, CTMP conditions for all NORs include the requirement for *methods to maintain*

*vehicle access to property and/or private roads where practicable, or to provide alternative access arrangements when it will not be.* I consider this condition to be acceptable.

**5.18 *Transport Issue: Concern over Construction traffic effects***

As noted above, CTMP conditions for all NORs include the requirement for *methods to maintain vehicle access to property and/or private roads where practicable, or to provide alternative access arrangements when it will not be.*

Other CTMP conditions refer to the management of heavy vehicle movements and mitigation against adverse effects such as dust and noise.

As confirmed at the end of my review, I have additionally recommended conditions in relation to network performance monitoring during the construction phase.

**5.19 *Transport Issue: Concern of adverse Parking effects***

*See comments under para 5.5.*

**5.20 *Transport Issue: BRT should follow an alternative route, e.g. Cavendish Drive***

*See comments under para 5.10.*

**5.21 *Transport Issue: Concern over Pedestrian Access to Property***

Where there are changes to access points, car park areas and manoeuvring areas within private property, provisions for pedestrian movements will also be considered on a site by site basis during the Outline Plan of Works phase.

**5.22 *Transport Issue: Segregated bus route not needed / Poor patronage of existing bus services***

*See comments under para 5.12.*

**5.23 *Transport Issue: Concern over Safety Impact***

Assessment of safety effects confirms that safety is expected to improve as a result of improved walking and cycling provisions, reduced vehicular travel demand due to modal shift to public transport and consequent reduced exposure of vulnerable road users to traffic safety risks.

The project is also expected to improve perceptions of safety within the study area, which evidence suggest limits uptake of public transport and active modes of travel.

The outcome of the safety assessment is deemed to be acceptable.

**5.24 *Transport Issue: Concern over Traffic Impact***

While some submissions for NOR 2 raised concerns in relation to worsening traffic congestion and disruption, forecast congestion levels at most key intersections along the BRT route itself are expected to worsen only slightly as a result of the BRT project. While some new congestion is expected across the wider network adjoining the BRT route, alternative arterial standard routes are available within this area which are considered to be acceptable for high volume strategic intra-urban routes.

Moreover, the BRT is expected to encourage modal shift to reduce car travel along the BRT route, thus reducing congestion and improving journey time reliability.

**5.25 *Transport Issue: Consider alternatives, e.g. routing along alternative roads, one-way road, more traffic signals, etc. / Use of trains***

Work undertaken prior to NOR lodgement undertook an assessment of alternatives, which followed a methodical approach towards assessing alternative means of fulfilling strategic objectives for a future public transport route to fulfil. This included alternative options for the route of NOR 2 through central Manukau, through which key factors influencing the choice of preferred route included effective penetration of the metropolitan centre and the cost, social and environmental impacts associated with alternative routes, such as Putney Way.

Heavy and Light rail options were also considered but discounted, due to cost, environmental and visual impacts and excessive passenger capacity which was beyond the level of growth expected within the corridor.

**5.26 *Transport Issue: Concern that too much land has been designated***

Concerns raised in submissions recognised consequent constraints on local access arrangements to sites as a result of excess land being designated through the NOR. Additional concerns included uncertainties over the future uses for the 'land buffers' created, with consequent concerns over visual and noise impacts, or else impacts of the land buffers being developed.

With respect to potential changes to site access and parking resulting from changes to designation boundaries, I refer to my previous comments under para. 5.6 in relation to compliance with Unitary Plan requirements.

**5.27 *Transport Issue: Lack of consideration towards alternative sites, alternative construction methods, etc.***

The four submitters in question raised particular concern in relation to disruption around larger retailers along Lambie Drive during the construction phase, as well as upon completion of the BRT.

Prospective CTMPs are deemed to be an appropriate tool to determine suitable alternative traffic routes within the adjoining network during the construction phase, as well as ensuring that access is maintained to retail sites during the construction phase.



As confirmed at the end of my review, I have recommended conditions in relation to network performance monitoring during the construction phase.

**5.28 Transport Issue: Concern over impact on freight traffic movements**

The ATE Report undertaken to support the NORs confirms that long term impacts on freight movements are expected to be minimal, with Te Irirangi Drive, Lambie Road and Great South Road continuing to fulfil a strategic freight function. As noted earlier, the BRT is expected to contribute towards improved journey time reliability along the arterial roads used by the BRT in the long term.

**5.29 Transport Issue: Ensure appropriate location for bus stop infrastructure and facilities for BRT on Ronwood Avenue, to the north of Westfield Manukau**

The Ronwood Avenue Station location was chosen to achieve good penetration of the business and retail areas within the centre of Manukau, whilst avoiding constraints associated with other locations. This includes the ability to maintain good pedestrian access to all stations as well as other essential vehicle access provisions.

**5.30 Transport Issue: Limit physical scope of BRT to central median/existing road reserve**

Other key elements of the project, such as the inclusion of walking and cycling facilities and key intersection improvements and alterations, are important elements of the project which contribute towards achieving key outcomes, such as catering for end-to-end journeys and effectively managing any adverse traffic effects.

NoR 3: Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange (Auckland Transport)

Transportation Issue Raised		No. Respondents
Concern over Construction traffic effects		10
Concern over safety impact		8
Concern over adverse parking effects		6
Segregated bus route not needed / Poor patronage of existing bus services		5
Concern that too much land has been designated		4
Concern relating to local access	Residential	2
	Commercial	1
	Education activity	1
BRT should follow an alternative route (e.g. Cavendish Dr)		3
Consider alternatives, e.g. routing along alternative roads, one-way road, more traffic signals, etc.		2
Recommend more mid block pedestrian crossing points		1
Concern over impact on freight traffic movements		1
Please contain all transport infrastructure provisions within existing designation		1

Proposed Station at corner of Lambie / Puhinui not needed	1
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**5.31 *Transport Issue: Concern over Construction traffic effects***

CTMP conditions for all NORs include the requirement for *methods to maintain vehicle access to property and/or private roads where practicable, or to provide alternative access arrangements when it will not be.*

Other CTMP conditions refer to the management of heavy vehicle movements and mitigation against adverse effects such as dust and noise.

I consider these conditions to be acceptable. As confirmed at the end of my review, I have additionally recommended conditions in relation to network performance monitoring during the construction phase.

**5.33 *Transport Issue: Concern over Safety Impact***

Assessment of safety effects confirms that safety is expected to improve as a result of improved walking and cycling provisions, reduced vehicular travel demand due to modal shift to public transport and consequent reduced exposure of vulnerable road users to traffic safety risks.

The project is also expected to improve perceptions of safety within the study area, which evidence suggest limits uptake of public transport and active modes of travel.

The outcome of the safety assessment is deemed to be acceptable.

**5.34 *Transport Issue: Concern of adverse Parking effects***

*See comments under para 5.5.*

**5.35 *Transport Issue: Segregated bus route not needed / Poor patronage of existing bus services***

*See comments under para 5.12.*

**5.36 *Transport Issue: Concern that too much land has been designated***

Concerns raised in submissions included uncertainties over the future uses for the 'land buffers' created, due to concerns over visual and noise impacts, or as well as their development potential.

I refer to my previous comments under para 5.6 in relation to ensuring that any new access and parking arrangements comply with Auckland Unitary Plan Transport Chapter requirements.

**5.37 *Transport Issue: Concerns relating to local access***

*General*

*See comments under para. 5.6 in relation to compliance of parking and access provisions with Auckland Unitary Plan requirements.*

With the addition of the BRT proposal along Puhinui Road, all local properties fronting the road shall be limited to left-in / left-out access (with no right-turns permitted). The ATE states that resulting estimated increases in travel distance will be no more than 2.5 km. Some of the effected properties already have existing alternative access points via adjoining side roads to Puhinui Road to mitigate against this constraint.

#### *Residential*

While submissions commenting on residential access from Puhinui Road raised concern in relation to the safety, safety of vehicle access manoeuvres is expected to improve, as a result of access being limited to left-in / left-out only. While the additional vehicular travel distance may be inconvenient, adjoining side roads to Puhinui Road assist in providing alternative access opportunities in the absence of right-turn manoeuvres being permitted within Puhinui Road.

Overall, the above arrangements are deemed to be acceptable for mitigating against the adverse effects of the BRT route along Puhinui Road upon local residential access.

#### *Commercial / Place of Worship*

Concerns raised by a commercial activity and a place of worship related to access during the construction phase and concern over longer-term access being limited to left-in / left-out only.

As noted above, this arrangement is expected to improve safety and while the additional vehicular travel distance may be inconvenient, it is expected to encourage take up of active modes of travel. Alternative arrangements for commercial vehicles to turn right into or out of Puhinui Drive are available via Noel Burnside Road / Cavendish Drive / State Highway 20.

As noted earlier, NOR conditions require property access to be maintained during the construction phase, as part of a CTMP.

#### **5.38 *Transport Issue: BRT should follow an alternative route, e.g. Cavendish Drive***

*See comments under para 5.10.*

#### **5.39 *Transport Issue: Consider alternatives, e.g. routing along alternative roads, one-way road, more traffic signals, etc.***

*See comments under para 5.25.*

#### **5.40 *Transport Issue: Recommend more mid block Pedestrian Crossing Points***

The proposals for NOR 3 already include increased pedestrian crossing facilities, in the form of dedicated crosswalks integrated with newly signalised intersections. These are considered to offer adequate provision for pedestrian crossing demand at key locations.

#### **5.41 *Transport Issue: Concern over impact on freight traffic movements***

The Assessment of Transport Effects (ATE) Report undertaken to support the NORs confirms that modal shift onto the BRT will provide improved corridor capacity along Puhinui Road, which will improve reliability for freight movements.

**5.42 Transport Issue: Please contain all transport infrastructure provisions within existing designation**

Other key elements of the project, such as the inclusion of walking and cycling facilities and key intersection improvements and alterations, are important elements of the project which contribute towards achieving key outcomes, such as catering for end-to-end journeys and effectively managing any adverse traffic effects.

**5.43 Transport Issue: Proposed Station at corner of Lambie / Puhinui not needed**

Work undertaken as part of the Business Case for the BRT identified that the Lambie Drive Station is expected to serve an increased catchment area for people and jobs by 2048, having been identified as a key location for 'Transit Oriented Development' (TOD) opportunities. Its location also ensures optimum spacing between consecutive stations along the route.

NoR 4A: NoR4A Notice of Requirement - SH20/20B Interchange to Orrs Road

<b>Transportation Issue Raised</b>	<b>No. Respondents</b>	
Concern over increased traffic noise	6	
Consider alternatives, e.g. routing along alternative roads, one-way road, more traffic signals, etc.	4	
Concern relating to local access	Residential	3
	Commercial	2
Concern over Safety impact	3	
Concern over construction traffic effects	3	
BRT should follow an alternative route (e.g. Cavendish Dr)	2	
Recommend more mid block pedestrian crossing points	1	
Segregated bus route not needed / Poor patronage of existing bus services	1	
Designation / project land-take is too excessive	1	
Designation NOR4A Scope inadequate, needs to take account of new roading to serve new development off SH20B	1	
Insufficient emphasis placed on quality Urban Design outcomes, including addressing severance, improving connectivity, levels of services, travel mode priority and amenity for pedestrians, cyclists and micro-mobility options	1	
Designation NOR 4A Scope and Provisions inadequate with respect to Auckland Airport's future interests, including effects on transport network	1	

**5.45 *Transport Issue: Consider alternatives, e.g. routing along alternative roads, one-way road, more traffic signals, etc.***

*See comments under para 5.25.*

**5.46 *Transport Issue: Concerns relating to local access***

*Residential*

Concerns raised by residential submitters over NOR 4A included increases in traffic with potential adverse safety effects, loss of residential amenity space as a result of widening into property boundaries and uncertainty over the use of any surplus land.

I refer to my previous comments under para. 5.6 in relation to ensuring compliance of parking and access provisions with Auckland Unitary Plan requirements.

*Commercial*

Concerns were raised in submissions by two commercial premises along the southern side of NOR4A, over the section where the BRT corridor deviates to the southern side. Concerns related to access and encroachment onto industrial yard space used for stationing heavy vehicles.

I refer to my previous comments under para. 5.6 in relation to ensuring compliance of parking and access provisions with Auckland Unitary Plan requirements.

**5.47 *Transport Issue: Concern over Safety Impact***

Assessment of safety effects confirms that safety is expected to improve as a result of improved walking and cycling provisions, reduced vehicular travel demand due to modal shift to public transport and consequent reduced exposure of vulnerable road users to traffic safety risks.

The project is also expected to improve perceptions of safety within the study area, which evidence suggest limits uptake of public transport and active modes of travel.

The outcome of the safety assessment is deemed to be acceptable.

**5.48 *Transport Issue: Concern over Construction traffic effects***

As noted earlier, NOR conditions require the retention of vehicle access to property during the construction phase and the provision of mitigation to manage adverse effects resulting from heavy vehicle movements, dust and noise. As confirmed at the end of my review, I have additionally recommended conditions in relation to network performance monitoring during the construction phase.

**5.49 *Transport Issue: BRT should follow an alternative route, e.g. Cavendish Drive***

*See comments under para 5.10.*

- 5.50 ***Transport Issue: Recommend more mid block pedestrian crossing points***  
The proposals for NOR 4A already include increased pedestrian crossing facilities, in the form of dedicated crosswalks integrated with newly signalised intersections. These are considered to offer adequate provision for pedestrian crossing demand at key locations.
- 5.51 ***Transport Issue: Segregated bus route not needed / Poor patronage of existing bus services***  
*See comments under para 5.12.*
- 5.52 ***Transport Issue: Designation / project land-take is too excessive (opposite Manukau Memorial Gardens)***  
The road layout opposite the Memorial Gardens is required to accommodate additional traffic lanes in between key intersections as well as a deviation of the BRT to the south side of Puhinui Road and associated landscaping works. It is considered that the land take for the proposed layout is appropriate to accommodate all of the required transport demands at this location.
- 5.53 ***Transport Issue: Designation NOR4A Scope inadequate, needs to take account of new roading to serve new development in the Puhinui Precinct off SH20B***  
While it is noted that new local roading connections are proposed to the south of Puhinui Road, as part of the future development of the Puhinui Precinct, these are considered to be outside the scope of the NOR, with the exception of intersection provisions that are already included in the NOR.
- 5.54 ***Transport Issue: Insufficient emphasis placed on quality Urban Design outcomes, including addressing severance, improving connectivity, levels of services, travel mode priority and amenity for pedestrians, cyclists and micro-mobility options***  
As noted earlier, the BRT includes provisions for other active modes, with a shared walking and cycling path along its length and signalised crossing points at key intersections. However, conditions proposed by the submitter (Kāinga Ora) in relation to site specific issues, including provisions for active mode users, are deemed to be acceptable.
- 5.55 ***Transport Issue: Designation NOR 4A Scope and Provisions inadequate with respect to Auckland Airport's future interests, including effects on transport network***  
Auckland Airport's proposed conditions, to allow for adequate provisions to cater for the Airport's interests, with regards to operations and utilities, are deemed to be acceptable from a transportation perspective, subject to acceptability of any future accessing and servicing provisions, in accordance with requirements of the Auckland Unitary Plan Transport Chapter.

<b>Transportation Issue Raised</b>	<b>No. Respondents</b>
Concern over construction traffic effects	3
BRT should follow an alternative route (e.g. Cavendish Dr)	2
Designation NOR4A Scope inadequate, needs to take account of new roading to serve new development off SH20B	1
Designation NOR 4B Scope and Provisions inadequate with respect to Auckland Airport's future interests	1

**5.56 Transport Issue: Concern over Construction traffic effects**

I would expect prospective CTMPs to address key construction related issues raised in submissions, including access to property, management of heavy vehicle movements and effects of dust and noise. As confirmed at the end of my review, I have additionally recommended conditions in relation to network performance monitoring during the construction phase.

**5.58 Transport Issue: Designation NOR4A Scope inadequate, needs to take account of new roading to serve new development off SH20B**

*See comments under para 5.53.*

**5.59 Transport Issue: Designation NOR 4B Scope and Provisions inadequate with respect to Auckland Airport's future interests**

*See comments under para 5.51.*

## 6.0 Conclusions and recommendations

6.1 Further to reviewing the NORs and supporting information for the future Airport to Botany Busway, with regards to acceptability in transportation engineering terms, I consider that overall the proposal would serve as an effective means to fulfil key transport objectives, such as modal shift to public transport and improved provisions for walking and cycling.

6.2 However, I remain concerned in relation to the potential for adverse traffic effects on the wider network as a result of the following key factors:

- The lack of assessment in relation to the proposed removal of pre-consented parking
- The lack of assessment in relation to adverse traffic effects during the construction phase, which will result in significant capacity reductions, with no identified means of effectively managing travel demand prior to the completion of the proposed BRT.

- 6.3 Subject to confirmation of legal advice from Auckland Council, I would consider that adverse effects resulting from the removal of pre-consented parking can be appropriately remedied and mitigated against through the implementation of an appropriate management plan.
- 6.4 While I acknowledge the role of prospective CTMPs to identify future mitigatory measures for construction traffic effects, insufficient evidence has been provided to understand the scope and nature of problems to be addressed during the construction phase. I would recommend conditions to establish and monitor minimum network performance parameters to be achieved during the construction phase, including maximum increases in journey time and traffic volumes along key routes. In the event of thresholds being exceeded, Travel Demand Management (TDM) measures should be implemented.
- 6.5 Appropriate performance monitoring measures for the construction phase should include, but not be limited to the following:
- Monitoring of travel times along key routes, including:
    - The route of the BRT
    - Parallel running arterial roads and state highways
    - Other roads in the adjoining network that are subject to significant traffic impact as a result of the construction works.Appropriate thresholds for excessive travel times to be determined based on average travel times surveyed over the selected routes prior to the commencement of works.
  - Monitoring of traffic volumes along the above routes
  - Levels of Modal shift or uptake of any Travel Demand Management (TDM) measures.
- 6.6 Options for TDM measures could include temporary Park and Ride bus services, such as those operated during construction of the Eastern Busway.





# REVIEW OF OPERATIONAL NOISE EFFECTS

AIRPORT TO BOTANY BUS RAPID TRANSIT PROJECT  
NOTICE OF REQUIREMENTS 1-4

PREPARED FOR  
Auckland Council

DATE  
30 May 2023

Technical review prepared by Styles Group for Auckland Council.

## REVISION HISTORY

Rev:	Date:	Comment:	Version:	Prepared by:
1	30/05/23		Final	Jon Styles, MASNZ Director and Principal Styles Group

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## 1.0 Introduction

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Auckland Council has engaged Styles Group to review the noise effects from Auckland Transport's four Notice of Requirements (NoR 1- NoR 4) to construct, operate and maintain the Airport to Botany Bus Rapid Transit (BRT) Project (the **Project**).

This review is focussed on the operational noise and vibration effects from the Project. I have prepared a review of construction noise and vibration effects under separate cover.

I have prepared this review following pre-lodgement and post-lodgement engagement with the BRT Project team. The engagement has included a site visit, meetings and feedback on draft reports and the review of the finalised Assessment of Traffic Noise Effects (the **Assessment** report lodged with the applications).

The objective of this review is to provide general commentary on the Assessment and to provide any additional commentary and analysis to ensure that the effects and mitigation measures are clear and understandable.

## 2.0 Experience and qualifications

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My full name is Jon Robert Styles. I am an acoustic consultant, director and the principal of Styles Group Acoustics and Vibration Consultants. I have approximately 22 years of experience in the industry, the first four years as the Auckland City Council's Environmental Health Specialist – Noise, and the latter 18 years as the Director and Principal of Styles Group.

I hold a Bachelor of Applied Science majoring in Environmental Health and I have completed the Ministry for the Environment's Making Good Decisions programme. I recently concluded my second term as the President of the Acoustical Society of New Zealand. I am currently a Council member and professional Member of the ASNZ.

I am on the executive team of the Association of Australasian Acoustical Consultants. My role on the executive team is to develop guidelines for the assessment of noise and vibration in New Zealand and Australia.

Throughout my career, I have been involved in the development and administration of numerous District Plan rules, plan changes and general policy development. I have assisted a large number of councils to process a significant number of resource consents and Notices of Requirement subject to noise and vibration standards. I have extensive experience advising on the management of noise and vibration effects, including the construction, maintenance and operational noise effects of major and strategic transport infrastructure (including port, road, air and rail) and the protection of strategic industry and transport infrastructure through the effective management of reverse sensitivity effects.

Specific assignments relevant to this evidence include:

- The Auckland Council's witness through the development of the High Land Transport Noise Overlay in the AUP.
- Advice on several recent District Plan reviews, including Whangarei Urban and Services Plan Change and plan reviews for Taupō, Napier and Kaipara.
- Providing advice on numerous public and private plan changes involving land exposed to road and rail noise, including recommendations for appropriate acoustic mitigation response.
- Noise and vibration measurements for a significant number of resource consent applications involving the establishment of activities sensitive to noise adjacent to various forms of transport infrastructure
- A large number of projects around New Zealand involving road traffic noise and the application of New Zealand Standard NZS6806:2010 *Acoustics – Road Traffic Noise – New and Altered Roads (NZS6806)*. A number of these projects have been Roads of National Significance (RoNS) and include the Southern Corridor Improvements, Te Atatu Road widening, Lincoln Road Corridor Improvements, Ellerslie and Takanini Noise Walls, Mill / Redoubt Road, SH1 Whangarei Improvements, SH12 Matakoho Bridges, CSM2 & MSFRL (Christchurch Southern Motorway Stage 2 & Main South Road Four Laning), Mackays to Pekapeka, Waikato Expressway (numerous sections), Southern Links Hamilton, Central Motorway Junction, AMETI, Victoria Park Tunnel, Waterview Connection, St Lukes Interchange, SH16 Causeway, Puhoi to Warkworth, the East West Link, Penlink and the Northern Corridor Improvements, Warkworth to Wellsford, Eastern Busway and many others.
- I have given evidence before several Boards of Inquiry on road traffic noise effects including being the Boards' expert.

I have read the Environment Court Code of Conduct for Expert Witnesses. My advice complies with the Code in all respects and the opinions herein are within my area of expertise.

### 3.0 The Project

---

The Project generally comprises the upgrade and widening of existing transport corridors to provide for a dedicated BRT corridor and high-quality walking and cycling facilities.

The scope of the projects, receiving environment and the nature and extent of works are described in the application material and various responses. They are not repeated here.

Each NoR is summarised below.

NoR	Description
NoR 1	Airport to Botany Bus Rapid Transit (Botany Town Centre to Rongomai Park)
NoR 2	Airport to Botany Bus Rapid Transit (Rongomai Park to Puhinui Station, in the vicinity of Plunket Avenue)
NoR 3	Airport to Botany Bus Rapid Transit (Puhinui Station, in the vicinity of Plunket Avenue to SH20/20B Interchange)
NoR 4a	Airport to Botany Bus Rapid Transit (SH20/20B Interchange to Orrs Road)
NoR 4b	Alteration to NZ Transport Agency Designation 6717 – State Highway 20B

## 4.0 Context to this Review

The Assessment is heavily focussed on assessing the effects of the Project against the provisions of NZS6806:2010 Acoustics – Road-traffic noise- New and altered roads (**NZS6806**).

It is well recognised in New Zealand that this standard has a number of limitations. These have been well-documented by various decision makers including several Boards of Inquiry<sup>1</sup>.

I consider it critical that the limitations of NZS6806:2010 are clearly understood in the decision-making process, along with the additional assessment that is necessary to ensure that the limitations are addressed for these projects.

The Assessment contains an assessment that goes beyond the simple requirements of NZS6806:2010 and addresses the change in noise level arising in each NoR and the change in the level and prevalence of a high level of annoyance due to exposure to traffic noise. These provide helpful context for the overall assessment of noise exposure and the effects on people.

### 4.1 Limitations of NZS6806

In my view, the limitations of the standard in this case are (in general terms):

- 1) The noise level thresholds that trigger the need to consider mitigation are very high. NZS6806:2010 adopts a noise level of 64dB  $L_{Aeq(24hr)}$  as a threshold for the investigation of mitigation. NZS6806:2010 does not require any mitigation effort where the noise level from an altered road is less than this level. This level is significantly above the

<sup>1</sup> For example, in the Final Report and Decision of the Board of Inquiry into the New Zealand Transport Agency Waterview Connection Proposal. Many paragraphs, but mainly at paragraph 925. Available at <https://www.epa.govt.nz/assets/FileAPI/proposal/NSP000012/Boards-decision/ec6f94077d/Waterview-Final-decision-volume-1-Report-and-decision.pdf>

World Health Organisations' (**WHO**) interim targets for managing road traffic noise. The implication is that NZS6806:2010 does not require or encourage any effort to mitigate the road traffic noise levels even where they are easily high enough to be generating considerable adverse health effects on people living in close proximity to the roads.

- 2) NZS6806:2010 does not require any assessment of the noise effects that may arise on the receiving environment. The standard sets out a process for determining what it states will be the BPO for mitigating road traffic noise. However, it is well recognised that the BPO can in fact involve the consideration of a number of factors that are not included in NZS6806:2010. The determination of the BPO by following NZS6806:2010 is further complicated because the lowest thresholds for mitigation effort are very high (see above) and the effects of the noise are not described or properly incorporated. Accordingly, the full assessment of road traffic noise effects can use many of the processes set out in NZS6806:2010, but that must be supplemented with an assessment of the actual noise effects that will be likely to arise. This can help the decision-maker to evaluate whether the BPO has in fact been adopted.
- 3) NZS6806:2010 requires assessment of the noise levels at a point 1m away from the façade of buildings and at a height of 1.2m to 1.5m above the floor level of interest. Roadside barriers designed for reducing noise levels can have a significant effect on reducing the noise levels at ground level (or 1.2m – 1.5m above it) but would be unlikely to deliver any reduction in noise level at the first or second floors of a multi-storey building. An assessment that follows NZS6806:2010 will conclude that a roadside barrier would not be a part of the BPO if it does not provide a noise level reduction at the most exposed part of the building. In my view, this is a clear limitation of the standard because roadside barriers can reduce the noise at ground level significantly and they can deliver significant improvements to the quality of ground floor living spaces and yards.
- 4) NZS6806:2010 can only look as far into the future as the physically existing environment and any granted but unimplemented building consents. NZS6806:2010 does not have any capability of looking 'forwards' to ensure that the mitigation measures are appropriate for the receiving environment that the District Plan provides for. This complicates the assessment for sites in the receiving environment that are currently vacant, or that have not been developed to the height or proximity to the roads that the District Plan provides for. This can be a major flaw in the standard in some cases, especially where a road is planned through an area that is currently vacant but zoned for intensive residential development. In this case the shortcoming of the standard is relevant to consider, but ultimately it is likely to be of little or no consequence as it is unlikely that the Requiring Authority could practicably implement any further mitigation that could do a better job of mitigating the effects for buildings that are taller and / or closer to the roads than the physically existing environment.

The limitations set out in (1) and (2) above are the most relevant and significant for these projects.

## 5.0 Adverse effects of exposure to road traffic noise

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The most important effects arising from exposure to high levels of road traffic noise are those that are chronic and not always readily apparent. Many people that are affected by exposure to high levels of road traffic noise may not be aware of the extent of the effect it is having on them.

It is well accepted and globally recognised that exposure to noise from road, rail and air transport infrastructure, industry, ports commercial activities and a variety of other sources has the potential to generate high levels of annoyance and adverse health effects if it is not managed carefully. The adverse effects can be significant where the noise exposure is high.

Minimising these effects by adopting the best practicable option to minimise noise from inside the road corridor and in the receiving environment is critical to avoid the worst of the adverse health and amenity effects that could otherwise arise.

The WHO has published many policies and studies documenting extensive investigations into the effects of noise exposure on people<sup>2</sup>, estimating the burden of disease from environmental noise and quantification of healthy life years lost as a result of exposure to environmental noise<sup>3</sup>.

In 2011, WHO published the “Burden of Disease from Environmental Noise”<sup>4</sup> that quantified the healthy years of life lost in western European countries as a result of exposure to environmental noise<sup>5</sup>. The study identified that at least 1 million healthy life years<sup>6</sup> are lost every year from exposure to transport noise in the western European countries<sup>7</sup>. The study provided sufficient evidence from large-scale epidemiological studies to link the exposure to environmental noise with adverse health effects, including annoyance<sup>8</sup>, tinnitus, sleep disturbance, cognitive impairment in children and cardiovascular disease. The 2011 study identifies road-traffic noise as the most prevalent source of environmental noise, with the largest contribution to the burden of disease due to noise.

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<sup>2</sup> WHO Regional Office for Europe (2012). Methodological guidance for estimating the burden of disease from environmental noise. Copenhagen,

<sup>3</sup> WHO Regional Office for Europe (2011). Burden of disease from environmental noise: quantification of healthy life years lost in Europe. Copenhagen,

<sup>4</sup> [https://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0008/136466/e94888.pdf](https://www.euro.who.int/__data/assets/pdf_file/0008/136466/e94888.pdf)

<sup>5</sup> WHO Regional Office for Europe (2011). Burden of disease from environmental noise: quantification of healthy life years lost in Europe. Copenhagen

<sup>6</sup> This is measured in 'DALYs'. DALYs are the sum of the potential years of life lost due to premature death and the equivalent years of “healthy” life lost by virtue of being in states of poor health or disability - WHO Burden of disease from environmental noise

<sup>7</sup> Comprised of 61 000 years for ischaemic heart disease, 45 000 years for cognitive impairment of children, 903 000 years for sleep disturbance, 22 000 years for tinnitus and 654 000 years for annoyance.

<sup>8</sup> High annoyance is not classified as a disease in the International Classification of Disease (ICD-9; ICD-10), it does affect the well-being of many people and therefore may be considered to be a health effect falling within the WHO definition of health as being a “state of complete physical, mental and social well-being”.



The 2011 study found that sleep disturbance and annoyance, mostly related to road traffic noise, constitute the bulk of the burden of disease. Available assessments place the burden of disease from environmental noise as the second highest after air pollution.

In 2018, WHO published the Environmental Noise Guidelines for the European Region (the **2018 Guidelines**)<sup>9</sup>. The purpose of the 2018 Guidelines is to provide robust public health advice to drive policy action to protect communities from the adverse effects of noise.

The 2018 WHO Guidelines discuss the importance of interventions to reduce road traffic noise exposure. They conclude that:

*“The GDG also considered the evidence for the effectiveness of interventions. The results showed that:*

- *addressing the source by improving the choice of appropriate tyres, road surface, truck restrictions or by lowering traffic flow can reduce noise exposure;*
- *path interventions such as insulation and barrier construction reduce noise exposure, annoyance and sleep disturbance;*
- *changes in infrastructure such as construction of road tunnels lower noise exposure, annoyance and sleep disturbance;*
- *other physical interventions such as the availability of a quiet side of the residence reduce noise exposure, annoyance and sleep disturbance.”*

The overall recommendation for road traffic noise from the 2018 Guidelines is:

*“For average noise exposure, the GDG strongly recommends reducing noise levels produced by road traffic below 53 dB  $L_{den}$ , as road traffic noise above this level is associated with adverse health effects.*

*For night noise exposure, the GDG strongly recommends reducing noise levels produced by road traffic during night time below 45 dB  $L_{night}$ , as road traffic noise above this level is associated with adverse effects on sleep.*

*To reduce health effects, the GDG strongly recommends that policy-makers implement suitable measures to reduce noise exposure from road traffic in the population exposed to levels above the guideline values for average and night noise exposure. For specific interventions, the GDG recommends reducing noise both at the source and on the route between the source and the affected population by changes in infrastructure.”*

The Assessment describes the existing traffic noise environment for each NoR as follows:

- NoR 1 (Te Irirangi Drive) “Traffic noise levels for houses in the first row range from mid-60 to about 70 dB  $L_{Aeq}$ , which shows that the area is impacted by high traffic noise levels.”<sup>10</sup>

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<sup>9</sup> [https://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0008/383921/noise-guidelines-eng.pdf](https://www.euro.who.int/__data/assets/pdf_file/0008/383921/noise-guidelines-eng.pdf)

<sup>10</sup> Page 29 of the Assessment

- NoR 2 “the BRT corridor will follow established major roads which also have a clear influence on the noise levels of neighbouring buildings. Measured noise levels show a range of mid-60 to low-70 dB  $L_{Aeq}$  for houses fronting the road, generally controlled by road traffic.”<sup>11</sup>
- NoR 3 “the BRT Corridor will follow an established major road which also has a significant influence on the noise levels of neighbouring buildings. Measured noise levels are in the mid-60 dB  $L_{Aeq}$  for houses fronting the road, generally controlled by road traffic.”<sup>12</sup>
- NoR 4 “Measured noise levels are in the mid-60 dB  $L_{Aeq}$  for houses fronting the road, generally controlled by road traffic. This shows that the area is clearly affected by traffic and aircraft noise.”<sup>13</sup>

The noise level predictions make it clear that the road traffic noise levels in the area are generally well above the WHO target noise levels.

This demonstrates that there is a significant incentive to ensure that the Requiring Authority is adopting the BPO to minimise the noise generated by the operational phase of the project.

## 5.1 A shared responsibility

It is often impracticable for the road controlling authority to contain the noise effects within the road corridor to the extent that the noise levels that ‘spill’ into the receiving environment are no greater than the WHO target levels. To do so would likely require quite significant measures such as high and continuous noise barriers, very low speed limits, vehicle flow reductions or similar. Many of these would defeat the purpose of the projects or at-best would severely adversely affect the efficient design, the urban amenity and access to properties and businesses.

The management of exposure to road traffic noise is a responsibility that is traditionally shared between the noise-maker (in this case the Requiring Authority) and the occupants and developers of the receiving environment. The common arrangement is that the road controlling authority would adopt the BPO to minimise the noise exposure in the receiving environment as the priority. This often includes a low-noise pavement, barriers where they are practicable, lower speed limits and designs that shift the heaviest / noisiest traffic flows away from the PPFs as far as practicable.

The receiving environment is then left to contend with the noise effects that ‘spill’ outside of the road corridor. This can be achieved in many ways, such as requiring a no-build setback, the use of spatial planning to create larger separation distances between major roads and residential areas, or most commonly to require activities sensitive to noise to be acoustically

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<sup>11</sup> Page 33 of the Assessment

<sup>12</sup> Page 40 of the Assessment

<sup>13</sup> Page 44 of the Assessment

treated so that the occupants can have a cool and quiet internal environment where good quality sleep and a moderate-to-high level of amenity is available.

Unfortunately, the AUP does not currently include any standards that would require an activity sensitive to noise / PPF near to a major road to be acoustically treated to reduce road traffic noise indoors. The AUP does not include any standards that would contribute towards the receiving environment managing the road traffic noise effects that cannot be contained inside the road corridor.

However, the NoR and resource consent processes do not have the ability to change the planning provisions in the AUP through the current process to require such treatment. Although beyond the expertise of an acoustic expert, it would be novel to expect the Requiring Authority to acoustically treat all existing activities sensitive to noise / PPFs that will remain exposed to noise levels above the WHO targets, especially when the level of exposure has likely been present for some considerable time already. The Requiring Authority are not proposing to acoustically treat any existing PPFs unless the procedures in NZS6806:2010 would require them to. I consider that this is a typical approach in a case such as this one. I consider that the lack of standards in the AUP to require acoustic treatment of existing, new or altered activities sensitive to noise near to major roads is a significant issue, and that introducing new standards in the AUP for this purpose is beyond the scope of these projects and this process.

Such standards are common in other District Plans around New Zealand<sup>14</sup>. They typically require that any new or altered activity sensitive to noise / PPF that 'comes to the noise' would have to be acoustically treated at the developers' cost.

Accordingly, I have reviewed the proposed noise mitigation measures to determine whether they represent the BPO for minimising noise inside the road corridor, and in the receiving environment to the extent that NZS6806:2010 would require it. I have completed my assessment on the basis that the scope is limited to adopting the BPO inside the road corridor and acoustically treating PPFs in accordance with the procedures set out in NZS6806:2010.

This forms the background and reasoning for the assessment of noise effects and the scope of this review.

## 6.0 Review of the Operational Noise Assessment

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This section sets out a review of the Assessment as it relates to the operational effects for NoRs 1-4.

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<sup>14</sup> Precinct I410 of the AUP

<https://unitaryplan.aucklandcouncil.govt.nz/Images/Auckland%20Unitary%20Plan%20Operative/Chapter%20I%20Precincts/4.%20South/I410%20Drury%20South%20Precinct.pdf> and the NAV Chapter of the Whangarei District Plan <https://www.wdc.govt.nz/files/assets/public/documents/services/property/planning/district-plan/operative/pt2/noise-and-vibration.pdf>

As set out earlier in this review, the Assessment is focussed primarily on the application of the procedures in NZS6806:2010 and provides a brief assessment of the effects in terms of the change in noise level and annoyance.

## 6.1 Technical aspects of the noise modelling

My comments in this section of the review are relatively brief, on the basis that I consider the technical acoustics aspects of the Assessment are generally robust.

I have worked extensively with the Requiring Authority's acoustic experts on this and other projects and I am very familiar with the noise modelling techniques, software and processes employed to measure and predict noise levels arising from traffic on roads.

I agree with the noise modelling methods and calculation procedures. I consider that the modelling process itself, including the calculation methods, input assumptions and the outputs are technically appropriate and sufficiently robust.

### 6.1.1 Modelling of the future receiving environment

The noise modelling inputs and outputs are focussed on the physically existing receiving environment. There is no noise modelling of the future built environment as it might be anticipated by planning policies aimed at intensifying development, especially around transport nodes.

Section 7.1 of the Assessment discusses the general nature of the existing and planned future environments. The assessment is very brief and there is no meaningful assessment of noise effects for the future planned environment.

The Assessment does reference some aspects of the future planned environment that are noteworthy. I have repeated some examples and provided my comments beneath each:

- 1) That there are no new dwellings permitted in the High Aircraft Noise Area (**HANA**) Section 7.5.1.

I agree with this. This means that there is unlikely to be any new development of noise sensitive activities in the parts of the alignment within the HANA.

- 2) *"Some sites south of Puhinui Road is within the HANA. This means that existing houses would already have been upgraded with improved sound insulation and ventilation to protect residents from aircraft noise."* Section 7.5.1;

The Assessment appears to be based on all dwellings in the HANA having been acoustically treated for aircraft noise. I understand that there are many dwellings that have not been acoustically treated by Auckland Airport and that remain acoustically 'untreated'. The existing dwellings in the HANA should therefore be treated as not acoustically treated unless it is demonstrated that they are.

- 3) *"New noise sensitive development is permitted in the MANA where new houses are appropriately insulated and ventilated. Therefore, we have assumed that any future*

*potentially higher density and multi storey houses would be appropriately designed to mitigate environmental noise from aircraft and road traffic.” Section 7.5.1;*

We agree that the Moderate Aircraft Noise Area (**MANA**) provisions in the AUP require new noise sensitive activities to be acoustically treated to reduce aircraft noise. However, the treatment is relatively modest, and would be unlikely to be sufficient to reduce high levels of road traffic noise and would not adequately deal with the cumulative noise effects of road and air transport noise.

I consider that the Requiring Authority’s assumption that any new development would be adequately acoustically treated to reduce air and road traffic noise to be incorrect.

I consider that new development in the MANA should be treated as potentially sensitive to the effects of road traffic noise from the alignment, and they should be treated as untreated unless demonstrated otherwise.

- 4) *“...developers of any new dwelling outside the MANA would likely take account of the existing high noise roads and design the dwellings accordingly.” Table 29.*

I disagree with this statement. There are no provisions in the AUP that would require acoustic treatment for road traffic noise in this part of Auckland. I consider that it is *possible* that some new noise sensitive activities outside the MANA may be acoustically treated to reduce road traffic noise. But I consider it more likely that they will not be.

Overall, it appears that the Assessment may be relying on the majority of future noise sensitive activities being acoustically treated to adequately reduce air and road traffic noise when it is unlikely that this will be the case.

I consider it more likely that:

- 1) There are no controls in the AUP requiring noise sensitive activities to be acoustically treated to reduce road noise in this part of Auckland.
- 2) There are provisions in D24 of the AUP that require noise sensitive activities in the HANA and MANA to be acoustically treated to reduce aircraft noise. The degree of acoustic treatment is typically very minimal, involving only a mechanical fresh air supply (e.g. DVS or HRV system) and additional batts or loose acoustic insulation in the ceiling space. This is generally insufficient to mitigate high levels of road traffic noise.
- 3) Many houses in the HANA are not acoustically treated at all;
- 4) Many houses in the MANA are not acoustically treated at all; and many of those that are treated for aircraft noise will not be capable of adequately reducing the cumulative effects of aircraft and road traffic noise;
- 5) Any future development of noise sensitive activities in the MANA facing the alignment will be unlikely to adequately reduce road traffic noise if only the AUP provisions relating to airport noise are complied with;

I consider that the existing and future planned environment is more susceptible to the effects of road traffic noise than the Assessment appears to acknowledge.

In my view, this increases the importance of a rigorous approach to determining and implementing the BPO for the minimisation of road traffic noise at the source.

## 6.2 Selection of the Preferred Mitigation Option

The Assessment sets out a short section for each NoR that outlines the possible noise mitigation options that could be adopted. I have copied an example section from section 6.4 of the Assessment for NoR 1:

*“As noted above, there is a small number of PPFs where noise levels are predicted to be within Category C. For those dwellings that are single storey (all except 30 Matarangi Road, which is a retirement village), an acoustic boundary fence would reduce noise levels to be within Category A or B. However, such fences may not be practicable if the slip lanes are repurposed into integrated active mode and stormwater infrastructure lanes as discussed in Section 5. For those areas the use of barriers should be reassessed at the time of construction, to confirm if a boundary fence represents the BPO.*

*The most appropriate (and already included) mitigation option is the use of low noise road surface, in this instance AC14.”*

The Assessment contains similar statements for the other NoRs. This demonstrates that the Requiring Authority has not followed the complete process set out in NZS6806:2010 to consider a range of possible mitigation options and to follow an evaluation process to determine the BPO.

I understand that such a process would be challenging to undertake at this time given that the lapse period sought is 15 years, and that the design and the receiving environment could change significantly in that time. I agree with the Requiring Authority that this situation lends itself well to a future assessment of the BPO to determine the BPO at that time.

I consider that the designation conditions requiring the future BPO assessment need to be clear, certain and robust, and they need to ensure that the future environment is properly recognised and provided for.

## 6.3 Assessment of road traffic noise effects

The Assessment demonstrates that a significant number of PPFs will be exposed to noise levels above the WHO targets even if the BPO to minimise noise inside the road corridor is adopted.

The project will deliver a reduction in noise level for some PPFs in some NoRs, and the majority of PPFs will experience little or no noticeable difference in noise level as a result of the project.

There are a considerable number of PPFs that will experience a moderate-to-significant increase in noise level – mostly as a result of the houses in front of them being removed to allow for the construction of the project.

Whether there is a change in noise level or not, there will be a significant number of PPFs exposed to noise levels well above the WHO target levels. With no acoustic treatment to those PPFs, I consider that there is a strong likelihood of significant adverse effects arising in the population.

I consider that this creates a strong incentive for ensuring that the BPO can and will be adopted for minimising the road traffic noise effects inside the road corridor.

## 7.0 Relevance of the current BPO assessment

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The Assessment sets out the results of the evaluation of the BPO for road noise mitigation based on the receiving environment that physically existed in 2022.

### 7.1 Current assessment is indicative only

Other than confirming that a low-noise pavement (AC-14) will continue to be used on the roads, the Assessment only makes tentative suggestions for other mitigation measures, such as barriers or acoustically treating houses.

An example of this can be found in relation to NoR 1 at page 24 of the Assessment where it states: *“Barriers are unlikely to be generally practicable, particularly in NoR 2 and 3 where access to many individual residential sites will need to be maintained. However, NoR 1 may make use of barriers if practicable, as dwellings are set back from the road.”*

This demonstrates that the Requiring Authority is not committing to any particular noise mitigation measures at this time, other than the low-noise pavement. This is reflected in the Requiring Authority’s proposed conditions, which do not mandate the implementation of any operational noise mitigation measures other than the type of pavement.

I understand that the Requiring Authority seeks a lapse period of 15 years for the designations, other than for 4B. It is clear that the current BPO assessment is intended to be revised closer to the time that the final design is confirmed, potentially (say) 12-14 years from now.

I consider that the Assessment is intended to provide an indication of the noise levels and mitigation measures based on the indicative design and the receiving environment that existed in 2022. I note that the Assessment does not make it clear that this is the case.

### 7.2 The Requiring Authority’s proposed conditions freeze the receiving environment to 2022

The Requiring Authority’s proposed conditions 30 to 32 (and others) require that a BPO assessment is repeated, prior to construction, using the final design present at that time, but referring only to the PPFs that have been evaluated in 2022. The future BPO assessment is intended to confirm whether the PPFs that exist in 2022 ‘change category’ under the final design.

It is not clear whether the Requiring Authority's proposed conditions are intended to include situations where 2022 dwellings have been demolished or removed and replaced with new dwellings, or whether the conditions are referring strictly to the PPFs that existed in 2022, ignoring any modifications or replacements, even if a replacement dwelling is on the same approximate footprint.

The proposed conditions essentially 'freeze' the receiving environment in time to 2022. The Requiring Authority's proposed conditions fail to recognise the receiving environment that might exist in the year that the final design is undertaken, potentially 15 years from now.

Understand that changes to the physical nature of the existing receiving environment are

I have summarised the Requiring Authority's proposed process below:

- 1) **2022** - Conduct an assessment of the BPO and road noise effects based on the indicative project design and the PPFs that exist in 2022. This is the Current Assessment.

The Current Assessment allocates a noise exposure 'category' (A, B or C) to each PPF in accordance with the guidance in NZS6806:2010. All PPFs that existed in 2022 are listed in a Schedule and assigned their noise exposure 'category'.

- 2) **2023** – Seek designation conditions that require a future BPO Assessment to determine whether the noise level predictions for the final design will result in a change to the 'category' at any PPF that existed in 2022.
- 3) **2024 – 2038** – Conduct the final project design. Prepare an updated noise model and BPO assessment for the final project design to predict the noise level at all PPFs that existed in 2022 (from the Current Assessment) and that still exist at the time of the final design.

Use the updated noise model to determine whether any 2022 PPFs that still exist change category. Investigate the BPO for reduction of noise at the 2022 PPFs that might still exist.

Ignore the receiving environment that exists at the time and ignore the implementation of the BPO in areas where the 2022 PPFs may no longer exist. This approach also ignores any opportunities to mitigate noise effects that might exist in the future as the design changes and the receiving environment changes in terms of development and potentially zoning and zone provisions.

### 7.3 Project objectives

Table 1 of the AEE sets out the RMA project objectives. Objective (f) is clear:

*“Enable the provision of public transport and active mode corridors in a manner that:*

- (f) *Integrates with the existing and planned future environments.”*



I agree with this objective. I consider that it is vital that the final design of the project includes noise mitigation measures that integrate with the existing and planned future environments as well as it can.

I consider that the Requiring Authority's proposed conditions that freeze the receiving environment to what existed in 2022, and ignores the future receiving environment directly contravenes this project objective.

## 7.4 Recommended approach

I consider that the Requiring Authority's proposed conditions should be revised to require a BPO assessment prior to construction in the future that recognises the receiving environment as it exists at the time.

This approach will ensure that:

- 1) The future BPO assessment recognises all 2022 PPFs that are still present when the final design is confirmed;
- 2) The future BPO assessment properly recognises the future planned environment / receiving environment as it will exist at the time of the future assessment; and
- 3) The future BPO assessment will be capable of taking advantage of any opportunities that may arise between now and the final design process. These opportunities may arise from new land development or changes to the AUP. One example could be a situation where numerous sites are developed in a way that avoids the need for vehicle access to the A2B alignment, making noise barriers practicable and worthwhile.

I consider that only minor modifications to the Requiring Authority's proposed conditions are required. There are two ways the conditions could be structured:

- 1) The conditions could simply require a fresh assessment of the BPO for the final design for all PPFs according to the receiving environment that is present prior to construction; or
- 2) The conditions could maintain reference to the schedule of PPFs and their respective categories that existed in 2022, and then add in a requirement for the future BPO assessment to determine the BPO for the environment that is present prior to construction starting.

## 7.5 Drury NoRs

I was heavily involved in the Council hearing process for the Drury NoRs in the vicinity of Jesmond and Waihoehoe Roads in 2021 and 2022.

The Requiring Authority proposed fundamentally the same approach in that case, with conditions that required future BPO assessments to be conducted only for whatever remained of the PPFs that were present in 2021. The Council hearing commissioners rejected the

Requiring Authority’s proposed conditions and recommended a set that promoted better integration with the future planned environment.

## 8.0 Submissions on operational noise

I have reviewed the submissions that relate to operational noise effects from on NoRs 1 to 4. The submitters raising concerns relating to operational noise effects from the project include:

**Table 1 Submissions on NoRs 1-4**

Submitter(s)	NoR	Concern
Submissions from a number residents	Relate to all	<p>There are a number of submissions from owners/ occupants that raise concerns relating to operational noise and vibration effects. Many of the submissions raises concerns relating to increased traffic noise levels, as a result of road widening and proposed removal of ‘buffer’ buildings that currently screen traffic noise.</p> <p>Several submitters request acoustic mitigation is applied to affected dwellings, such as noise barriers, acoustic treatment to dwellings and a speed limit of 50kph.</p>
Renaissance apartments (corner of Ronwood and Osterley Way)	NoR2	Operational noise and vibration effects on the apartment building (168 apartments on 16 levels) at 18 Ronwood Avenue
Australasia Branch Office of Jehovah’s Witnesses and Jehova’s Witness Manukau Kingdom Hall Trust	NoR 3	The submitters seek further information to understand whether there will be increased noise post construction.
Auckland University of Technology	NoR 2	AUT raise concerns relating to operational noise effects on their South Campus

I consider that many of the submissions can be responded to or clarified by inspection of the tables of predicted noise levels Appended to the Assessment.

The concerns are generally expressing an adverse reaction to any increase in noise level arising from the project. I consider that any increase in noise level is undesirable and that every effort should be made to minimise the noise levels experienced in the receiving environment.

The main challenge is for the future BPO assessment to be conducted in the most robust way possible to ensure that any noise effects that do ‘spill’ into the receiving environment are as low as possible.

The question then is to determine ‘who’ is responsible for mitigating those effects to acceptable levels by Structural Mitigation (acoustic treatment) of PPFs, and from what level of noise that responsibility starts from.

The Requiring Authority’s position is that it should only be responsible for acoustically treating PPFs that fall into Category C according to NZS6806:2010. These are the very-worst affected PPFs where noise levels are predicted to exceed 67dB  $L_{Aeq(24hr)}$ .

The submission from Kāinga Ora (addressed below) seeks that the Requiring Authority should be responsible for acoustically treating PPFs that are predicted to be exposed to noise levels greater than 55dB  $L_{Aeq(24hr)}$ . This is a much lower level of noise that would likely require the Requiring Authority to treat many hundreds of PPFs.

The determination of which level of noise should be the trigger for Requiring Authority’s funding of acoustic treatment is one that requires the input of a range of experts beyond acoustics.

## 8.1 Owners/ occupants of dwellings

There are a number of submissions (across all NoRs) from owners/ occupants that raise concerns they will be exposed to increased traffic noise levels.

The submission of H Haylock provides a detailed insight into the existing noise environment.

*The land is currently subject to strict planning conditions as a result of the HANA (High Airport Noise Environment) overlay in the District Plan. This results in two things – the land is zoned ‘Single House’, meaning only one residence is allowed per site, and the site size is 500m<sup>2</sup>. This is to limit the number of homes that are subject to high levels of aircraft noise. It also means that any new homes or additions, etc., are subject to higher than standard acoustic treatment requirements.*

*The Airport offers a noise mitigation package to existing homes in the HANA, to fit air conditioning and ventilation equipment so that homes are adequately ventilated with all doors and windows shut to keep out the aircraft noise. Note the packages do not include double-glazing. The package is offered to homeowners 100% paid for by the Airport. A covenant is placed on the homes. There has been limited uptake of the package, meaning that many homes in the area are subject to significant aircraft noise. At our house (172 Puhinui Road), we are currently in the process of having the mitigation package installed.*

*With the windows open, or when sitting outside, we regularly have to institute what we call the ‘Puhinui Pause’ as we cannot hear what each other is saying. This, along with the noise from existing traffic on Puhinui Road, led us to install double glazing at our own cost. It has made a significant difference to our quality of life.*

*While we bought our property on Puhinui road over 25 years ago, knowing there would be noise from both the airport activities and us being located right on a busy road, people owning homes to the South of us (Freyberg Ave) did not buy their houses on a*

*busy road with traffic noise. The homes on Puhinui Road currently provide a buffer to the homes on Freyberg Ave.*

*If the BRT bridge is built, the majority of homes facing Puhinui Road in this block will be demolished. This will leave people in Freyberg Ave homes experiencing significantly more noise than they expected when they bought their properties. This is acknowledged in the Assessment of Traffic Noise Effects – the ATNE (p.x, 40). In addition, they will have the impacts of shading and visual disruption of a large bridge at the bottom of their back yards, instead of the suburban residential housing that was there when they bought.*

*The ATNE (p.45) notes that along Puhinui Road, the noise levels can be up to 72dB/24hr, while at the properties that are currently shielded by those Puhinui Road houses, the noise levels are less than 50dB/24hr. The ATNE appendices note expected changes in noise level. For properties in Freyberg Ave, many properties will go from experiencing noise in the 40db/24 range up to 60db/24hr (pp 101-102). This is a significant change.*

*Table 25 of the ATNE shows the number of people potentially ‘highly annoyed’ by the noise from the activities on Puhinui Road.*

Scenario	Number of people highly annoyed
Existing	133
Do-nothing	141
Do- minimum	149

*This table suggests that there will only be an increase of highly annoyed people from 133 to 149 (an increase of just 16 people). However, the table is misleading. It neglects to note that most, if not all of the current 133 highly annoyed people will not be living there anymore as their houses will have been demolished. Most of the 149 under a ‘do minimum’ approach will be newly ‘highly annoyed’ people living in houses on Freyberg etc., that were previously buffered from the noise of Puhinui Road by a row of houses that will not be there any longer. This needs to be considered – it is not just a small increase of high annoyance.*

*The ATNE (p.x and elsewhere) notes the properties in PRCC Island should not be overly affected by noise from the proposed BRT as they should already have some acoustic protection afforded them from the HANA noise mitigation package (e.g., p. 45). As noted above, however, uptake of the package has been low in part, because people are concerned about the covenants that give the Airport some say in what people do with their buildings.*

*Also noted above, the HANA only goes so far. It does not, for example, provide extra-thick noise reducing gib-board or double glazing. P.49 notes the only mitigation method that is recommended, is to ensure the roading surface of the BRT is similarly smooth to the current surface of Puhinui Road. I would like to see this revisited, with some form*

*of compensation given to those property owners such as those on Freyberg Ave, who will experience both unanticipated acoustic and visual impacts.*

*They did not buy their homes in the knowledge that they would, one day, be left with a large bridge overlooking their properties causing visual intrusion and acoustic angst. There are some properties that will experience even great impacts. These are addresses on Puhinui Road where the properties have been subdivided in the past, and new homes built on the rear properties that have been created. The NoR maps show clearly that these homes will not be considered by AT to be acquired for the project. These homes, many of them double-storeyed, will face directly onto the new BRT bridge. These homeowners, like the other people that back onto properties to be acquired on Puhinui Road, have not been specifically notified about the proposed designation.*

*Along the small section of Puhinui Road between Clendon Ave and Plunket Ave, there are at least seven such properties. There are approximately 23 properties in this section of the street that are to be acquired. Numbers 176a, 186a, 188a, 190a, 200a and 200 Puhinui Road, and 4 Clendon Ave. This means that around 1/3 homes are not being acquired, but will experience considerable impact from the BRT as they will be sited so close to it. (Note, too, the anomaly where it seems 160 Puhinui Road only has a small road frontage taken, compared with its neighbours which have their entire property taken.)*

*I imagine that there will be many such properties along the entire length of the proposed BRT as planned in NoR 2 also, where the BRT alignment moves to the Northern side of Puhinui Road to avoid Puhinui School.*

There are many aspects of this submission that I agree with. In particular, I agree that:

- 1) The PPFs inside the HANA that are affected by this project are already subject to high levels of aircraft noise. I consider that the noise effects from this project on these PPFs should be considered cumulatively with aircraft noise. This is not a situation where it is possible to say, "it's already quite noisy, so more noise will be okay."
- 2) The airport insulation package has not had full uptake in the HANA.
- 3) The aircraft insulation package will be insufficient to adequately mitigate high levels of road traffic noise, and aircraft noise.
- 4) That the removal of houses fronting the existing road will expose the houses behind them to potentially high levels of road traffic noise from the project.
- 5) That the location of the majority of people that are highly annoyed by road traffic noise will move from the 'front' row of existing houses to the next row back once the front row is removed. This shifts the burden from one group of residents to another.
- 6) That overall, the road traffic noise effects in the existing and proposed situations are high.

I address these points throughout this review.

I consider that the proposition that the Requiring Authority compensate some PPFs where they are exposed to 'new' noise effects that they could not have anticipated is beyond my area of expertise to consider.

## 8.2 Kainga Ora

The submission of Kainga Ora raises concerns relating to the operational noise effects on the health and wellbeing of the community. The main points of the Kainga Ora submission are set out below, along with my responses under each point

### 8.2.1 Health effects

*Kāinga Ora is concerned that the Project does not fully assess the health effects associated with traffic noise of the Project. While the Project assesses the traffic noise effects in the context of NZS6806, Kāinga Ora is concerned that the standard does not fully capture the potential health effects of a proposal. This was raised within the Recommendation for the Notices of Requirement sought for the route protection of the Drury Arterial Network (which in turn took reference and guidance from the Board of Inquiry decision for the Waterview Connection) where it was noted that NZS 6806: potentially discounts the adverse cumulative effects of elevated noise on recipients;*

*Consequently, Kāinga Ora requests further information regarding the health and safety effects of the Project (i.e., an assessment of these) including the cumulative effects, prior to the hearing. This does not appear to have been provided within the application documents due to the above, and due to the AEE not identifying this as a potential adverse effect.*

*Kāinga Ora notes that Auckland Transport identifies that activities subjected to an operational noise level of 55 dB  $L_{Aeq}$  require mitigation to address potential adverse health effects. Kainga Ora requests a condition requiring operational noise levels to not exceed 55 dB  $L_{Aeq}$  beyond the boundaries of the designation or, where exceeded at a sensitive receiver, mitigation is provided.*

*This operational noise level was the baseline utilised within Auckland Transport's Acoustic Expert Evidence by Claire Drewery for Private Plan Change 51 (PPC51)11, who considered that there are adverse health effects in relation to road traffic, referencing both the World Health Organisation (WHO) Environmental Noise Guidelines for the European Region (2018) and enHealth's The Health Effects of Environmental Noise (2018).*

*Based on the above, Ms Drewery adopted 55 dB  $L_{Aeq(24\text{ hour})}$  as the noise level above which potential health effects could occur and made subsequent recommendations for PPC51. Kainga Ora considers that it is appropriate that that any health effects arising from the operation of the road environment should be addressed and that the NOR should include conditions limiting noise beyond the designation boundary to 55 dB  $L_{Aeq(24\text{ hour})}$  consistent with the levels adopted by Ms Drewery. In circumstances*

*where this can not be achieved then noise mitigation to affected receivers should be provided.*

I agree with many aspects of this part of the Kāinga Ora submission. I consider that the potential adverse effects on the health and amenity of the people has the potential to be significant in the existing and proposed Do Minimum environment.

I consider that it would be ideal if the Requiring Authority could internalise the noise effects such that the noise levels outside the road corridor were no greater than 55dB  $L_{Aeq(24hr)}$ . However, this would be likely to require continuous noise barriers along the alignment to heights of at least 3-5m or more. Kāinga Ora suggest that if this could not be achieved practicably, the Requiring Authority should be providing acoustic treatment to PPFs where the same noise level is exceeded.

In principled terms, I agree that this would be ideal. This would create a similar situation that most large ports and airports in New Zealand also face. However, the number of affected buildings that might require acoustic treatment would be significant. I understand the fact most of these PPFs would have 'come to the noise' is a factor that would complicate the determination of what party should be responsible for the mitigation effort.

Ultimately, the determination of whether it is reasonable to require the Requiring Authority to mitigate the effects of noise at all PPFs where the road traffic noise level is greater than 55dB  $L_{Aeq}$  requires the expertise of a number of disciplines.

### 8.2.2 Management of effects at source

*Kāinga Ora considers that it is appropriate that the Requiring Authority is incentivised to ensure that such measures are undertaken to reduce noise and vibration at source, while at the same time utilising the AUP to manage those effects that cannot be controlled at source, if required.*

*Kāinga Ora submits that there would be a number of advantages with minimising noise and vibration at source that should provide benefits to future residents in surrounding urban areas, namely the ability for existing and future occupants to enjoy greater amenity outside their dwellings. While acoustic attenuation could be an appropriate response to address a health or amenity issue, any reduction of noise (or vibration) at source would enable future residents to enjoy their outdoor living areas, rather than being 'locked-up' in their homes.*

I agree. My review has determined that it is critical for the BPO to be accurately identified and implemented for the future environment at the time of the final design. I have also determined that the 'residual' noise effects in the receiving environment will still be greater than what is normally desirable and above the target noise levels suggested by the WHO. My assessment is that the residual noise effects could be managed by provisions in the AUP that would require acoustic treatment of activities sensitive to noise in close proximity to major roads. I understand that the Requiring Authority is not seeking any changes to the AUP in this process that could deliver such an outcome.

*At the same time, Kāinga Ora submits that there may be circumstances whereby existing dwellings that experience increased exposure to noise and vibration require further mitigation in the form of building modifications, including but not limited to wall insulation, double glazing, forced ventilation and temperature controls. Kāinga Ora would like to discuss this aspect with the Requiring Authority.*

I agree. The Current Assessment of the BPO makes it clear that there are a number of Category C properties that would require Structural Mitigation (acoustic treatment). The need for this will remain if the Future BPO Assessment (at the time of final design) results in noise levels exceeding the Category C criteria in the receiving environment. I expect that many of these PPFs will likely require considerable modification to achieve the target indoor noise level of 40dB  $L_{Aeq(24hr)}$ . This could include improvements and upgrades to the glazing, internal wall linings, external doors and other parts of the building envelope. This is already catered for in the Requiring Authority's proposed conditions.

### 8.2.3 Structural mitigation

*Kāinga Ora supports the application of structural mitigation measures (low noise and vibration road surfaces, acoustic barriers insulation, where appropriate) to all roads within the NoR. However, it is sought that where mitigation is applicable along the alignment of the Project, that this offer for mitigation shall stay in perpetuity (i.e. not be limited to three months), until an offer has been taken up, in the interests of natural justice and mitigating adverse health effects for future occupiers.*

I consider that this aspect of the Kāinga Ora submission is beyond the expertise of an acoustics expert.

### 8.2.4 Low road noise surface

*Kāinga Ora requests that condition 28 (Low Noise Road Surface) is amended to require the use of low noise and vibration road surfaces, such as an Asphaltic mix surface, for all road surfaces within this designation, unless further information confirms that this is not warranted from a health and safety perspective.*

I agree with this submission point generally. I understand that the Requiring Authority is proposing to use AC14 for the final surfacing. This is classified as a 'low noise' surface but has only moderate noise reducing capabilities. Twin layer Open Graded Porous Asphalt (twin layer OGPA) is an example of a high performing pavement that will reduce the noise level by a further 2-3dB in the 50km/hr speed environment that I understand will be applied to the project. However, I understand that the higher-performing surfaces are expensive, wear faster, require more maintenance and have practical limitations and complications (such as for drainage and transitions) that often make their use impracticable in urban environments.

I support the Kāinga Ora submission point to require the Requiring Authority to confirm that the use of AC14 is the BPO surface for road noise minimisation in this case.



## 9.0 Conclusion

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The Assessment of Operational Noise Effects from the Project is heavily focussed on addressing the provisions of NZS6806:2010 for the current existing environment. The recommendations for noise mitigation measures have not been fully determined now and the Requiring Authority's proposed conditions rely on a future assessment of the BPO following the same procedures in NZS6806:2010, but only referring to what might be left of the PPFs that existed in 2022.

It is well recognised in New Zealand that NZS6806:2010 has a number of limitations. These have been well-documented by various decision makers including several Boards of Inquiry. I consider it critical that the limitations of NZS6806:2010 are clearly understood, along with the additional assessment that is necessary to ensure that the limitations are addressed for these projects.

It is well accepted and globally recognised that exposure to noise from road, rail and air transport infrastructure, industry, ports commercial activities and a variety of other sources has the potential to generate high levels of annoyance and adverse health effects if it is not managed carefully. The adverse effects can be significant where the noise exposure is high.

Minimising these effects by adopting the best practicable option to minimise noise from inside the road and in the receiving environment is critical to avoid the worst of the adverse health and amenity effects that could otherwise arise.

The noise level predictions make it clear that the road traffic noise levels in the area are generally well above the WHO target noise levels. This demonstrates that there is a significant incentive to ensure that the Requiring Authority is adopting the BPO to minimise the noise generated by the operational phase of the project.

The management of exposure to road traffic noise is a responsibility that is traditionally shared between the noise-maker (in this case the Requiring Authority) and the occupants and developers of the receiving environment. The common arrangement is that the road controlling authority would adopt the BPO to minimise the noise exposure in the receiving environment as the priority.

The receiving environment is then left to contend with the noise effects that 'spill' outside of the road corridor. The AUP does not include any standards that would contribute towards the receiving environment managing the road traffic noise effects that cannot be contained inside the road corridor. I have completed my assessment on the basis that the scope is limited to adopting the BPO inside the road corridor and acoustically treating PPFs in accordance with the procedures set out in NZS6806:2010. This forms the background and reasoning for the assessment of noise effects and the scope of this review.

I agree with the noise modelling methods and calculation procedures. I consider that the identification and representation of the existing receiving environment is sufficiently accurate for the purpose of the noise modelling.

There are several issues with the Assessment and the Requiring Authority's proposed conditions that I raise. These are:

- 1) Overall, it appears that the Assessment may be relying on the HANA and MANA provisions of the AUP to ensure that the majority of future noise sensitive activities are or will be acoustically treated to adequately reduce air and road traffic noise. I consider that it is unlikely that such treatment will be as widespread as the Requiring Authority is relying on. Overall, it appears that the Assessment may be relying on the majority of future noise sensitive activities being acoustically treated to adequately reduce air and road traffic noise when it is unlikely that this will be the case.
- 2) The Requiring Authority has not followed the complete process set out in NZS6806:2010 to consider a range of possible mitigation options and to follow an evaluation process to determine the BPO for the current design and receiving environment. I understand that such a process would be challenging to undertake at this time given that the lapse period sought is 15 years, and that the design and the receiving environment could change significantly in that time. I agree with the Requiring Authority that this situation lends itself well to a future assessment of the BPO to determine the BPO at that time.

I consider that the designation conditions requiring the future BPO assessment need to be clear, certain and robust, and they need to ensure that the future environment is properly recognised and provided for.

- 3) Whether there is a change in noise level or not, there will be a significant number of PPFs exposed to noise levels well above the WHO target levels. With no acoustic treatment to those PPFs, I consider that there is a strong likelihood of significant adverse effects arising in the population. I consider that this creates a strong incentive for ensuring that the BPO can and will be adopted for minimising the road traffic noise effects inside the road corridor.
- 4) The Requiring Authority's proposed conditions 30 to 32 (and others) require that a BPO assessment is repeated, prior to construction, using the final design present at that time, but referring only to the PPFs that have been evaluated in 2022. The future BPO assessment is intended to confirm whether the PPFs that exist in 2022 'change category' under the final design. The proposed conditions essentially 'freeze' the receiving environment in time to 2022. The Requiring Authority's proposed conditions fail to recognise the receiving environment that might exist in the year that the final design is undertaken, potentially 15 years from now.
- 5) I consider that the Requiring Authority's proposed conditions that freeze the receiving environment to what existed in 2022, and ignores the future receiving environment directly contravenes the Resource Management project objective (f).
- 6) I consider that the Requiring Authority's proposed conditions should be revised to require a BPO assessment prior to construction in the future that recognises the receiving environment as it exists at the time. I consider that only minor modifications

to the Requiring Authority's proposed conditions are required. There are two ways the conditions could be structured:

- a) The conditions could simply require a fresh assessment of the BPO for the final design for all PPFs according to the receiving environment that is present prior to construction; or
- b) The conditions could maintain reference to the schedule of PPFs and their respective categories that existed in 2022, and then add in a requirement for the future BPO assessment to determine the BPO for the environment that is present prior to construction starting.

I consider that the conditions can and should be revised to require a robust assessment and implementation of the BPO at the time the final design is undertaken. This should result in the BPO being identified and adopted for the minimisation of road traffic noise effects outside the road corridor, and for Structural Mitigation (acoustic treatment) to be supplied by the Requiring Authority for PPFs in Category C according to NZS6806:2010.

This is still likely to result in a significant number of PPFs where the road traffic noise level exceeds the WHO target levels and where significant adverse health and amenity effects may arise. I consider that the traditional method for addressing this is to ensure that noise sensitive activities near to busy / noisy roads are constructed or treated in a way that reduces the external noise intrusion. This would normally be controlled by the provisions in the District Plan, however no such provisions apply in the AUP at the current time in this part of Auckland. Imposing such controls on the receiving environment is outside the scope of this process.



## Appendix 1 – 3 Urban Design Memo



**Memo: Technical specialist memorandum for notices of requirement for Airport to Botany (A2B): Urban Design**

9 May 2023

To: Trevor Mackie, Consultant Planner, Plans and Places, Auckland Council

And to: David Wong, Senior Policy Planner, Planning Central/South, Plans and Places, Auckland Council

From: Lisa Mein, Senior Urban Designer, Mein Urban Design and Planning Limited

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**Subject: Notices of Requirement: – Airport to Botany Bus Rapid Transit, Urban Design Review**

### 1 Introduction

1.1 Auckland Transport and Waka Kotahi NZ Transport Agency, as requiring authorities, have lodged five NoRs for new designations and an alteration to Designation 6717 for State Highway 20B to protect the route that will enable the Airport to Botany Bus Rapid Transit project.

1.2 The NoRs are outlined below:

- a. NoR 1: Bus Rapid Transit – Botany Town Centre to Rongomai Park (Auckland Transport)
- b. NoR 2: Bus Rapid Transit – Rongomai Park to Puhinui Station in the vicinity of Plunket Avenue (Auckland Transport)
- c. NoR 3: Bus Rapid Transit – Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange (Auckland Transport)
- d. NoR 4a: Bus Rapid Transit – SH20/20B Interchange to Orrs Road (Auckland Transport)
- e. NoR 4b: Alteration to Designation 6717 SH20B-SH20 to Auckland International Airport (Waka Kotahi NZ Transport Agency)

### 2 Qualifications and Relevant Experience

- 2.1 My name is Lisa Kate Mein.
- 2.2 I hold the qualifications of Bachelor of Planning from University of Auckland (1994) and Master of Arts (Urban Design) from the University of Westminster in London (2001). I am a full member of Te Kokiringa Taumata - the New Zealand Planning Institute, a member of ICOMOS NZ and a member and current co-chair of the Urban Design Forum Aotearoa.
- 2.3 I have in excess of 27 years' experience as an urban designer and planner in New Zealand, the UK and Ireland. I am a Director and Senior Urban Designer at Mein Urban Design and Planning Limited. Prior to establishing Mein Urban Design and Planning Limited in 2019, I worked for Boffa Miskell Limited for fifteen years. In the final three years of that time, I was a Senior Principal and managed the Auckland Urban Design and Landscape Planning team.
- 2.4 Recent relevant experience includes the following:

**Auckland Council, Private Plan Change 73, 2021 – 2022**

Urban design review of Proposed Private Plan Change 73 to the AUP-OP to rezone land from Rural – Mixed Rural to Residential – Mixed Housing Urban and to introduce a new precinct, review of submissions/ further submissions as they related to urban design. This included preparation of material for s42A report and attendance at the Council hearing to give a brief statement and answer questions from the panel.

**Auckland Council, Private Plan Change 58, 2020 – 2021**

Urban design review of Proposed Private Plan Change 58 to the AUP-OP to live zone land in Drury from Future Urban zone to Residential - Mixed Housing Suburban zone and submissions/ further submissions. Included preparation of material for the s42A report.

**Auckland Council, Private Plan Change 52, 2020 – 2021**

Urban design review of Proposed Private Plan Change 52 to the AUP-OP to live zone land in Drury from Future Urban zone to Residential - Mixed Housing Urban zone and submissions/ further submissions. Included preparation of material for the s42A report.

**Auckland Council, Auckland Unitary Plan Plan Change 34 2019 –2020**

Preparation of a character statement for Howick Village (Howick Business special character area), including amendments to the planning maps to add four new sites to the special character area and identification of character buildings. Assistance with s32, preparation of material for s42A report and attendance at Council hearing.

**Auckland Council, Auckland Unitary Plan Proposed Plan Change 25 (Private) – 2019- 2021**

Urban design review of Proposed Private Plan Change 25 to the Auckland Unitary Plan and submissions/further submissions. Included preparation of material for the s42A report, attendance at the Council hearing and assistance with preparation of the Council's closing statement. Subsequent urban design witness to an Environment Court appeal by Middle Hill to PC25.

**Auckland Unitary Plan Hearings 2014-2016**

A key role for Auckland Council on the Special Character overlay provisions of the Proposed Auckland Unitary Plan throughout the Independent Hearing Panel process and at the Environment Court

### **3 Overview and Scope of Technical Memorandum**

3.1 In drafting this memo, I have reviewed the following documents:

- a. Airport to Botany Assessment of Effects on the Environment, by Te Tupu Ngātahi, dated 9 December 2022
- b. General Arrangement Plan – NoR 1, by Te Tupu Ngātahi, dated 9 December 2022
- c. General Arrangement Plan – NoR 2, by Te Tupu Ngātahi, dated 9 December 2022
- d. General Arrangement Plan – NoR 3, by Te Tupu Ngātahi, dated 9 December 2022
- e. General Arrangement Plan – NoR 4a, by Te Tupu Ngātahi, dated 9 December 2022
- f. General Arrangement Plan – NoR 4b, by Te Tupu Ngātahi, dated 9 December 2022
- g. Urban Design Evaluation Volume 4, Version 1 – Parts 1 – 6, prepared by Stuart Bowden and Elaine Chen from Beca as part of Te Tupu Ngātahi, dated 9 December 2022
- h. Landscape Effects Assessment Volume 4, Version 1 – Parts 1 – 3, prepared by Tom Lines and Chris Bentley from Boffa Miskell Limited as part of Te Tupu Ngātahi, dated 9 December 2022
- i. Response to request for further information letter dated 10 February 2023
- j. Submissions related to A2B

3.2 I participated in an applicant-led bus tour of the full length of the A2B site on 11 October 2022, which stopped at a number of locations along the route including Manukau Sports Bowl, Manukau Bus Station, Puhinui Station and Memorial Gardens. This gave me an oversight of the full extent of the NoR.

3.3 This technical memorandum assesses urban design considerations and any actual or potential effects on amenity associated these NoRs. These are addressed separately for each NoR, to assist the preparation of the Council's reporting planner's report under s42A of the RMA.

### **4 Background**

4.1 As set out in the AEE, the project is part of the Southwest Gateway Programme (SWGP), which is a programme of investments aiming to deliver transformative transport improvements to address critical transport-related issues across Auckland's south-western, southern and eastern suburbs. The programme is being jointly delivered by Auckland Transport, Waka Kotahi NZ Transport Agency, Te Ākitai Waiohū and Auckland Airport.

4.2 At present there is no direct connection between Auckland's eastern areas and the major employment hubs of Manukau metropolitan centre, East Tāmaki or Auckland Airport. The eastern and southeastern parts of the city have been intensifying, and continue to intensify, at a rapid pace placing increasing pressure on the existing transport network. The project aims to protect this route for bus rapid transit to provide an efficient, safe, and accessible travel choice for those communities.

4.3 Overall, these five NoRs relate to a 14.9km portion of the overall 18km project (see Figure 1). This primarily involves the upgrade and widening of existing transport corridors to provide for a dedicated Bus Rapid Transit (BRT) corridor and improvements for active modes including separated walking and cycling facilities running parallel alongside the entire corridor.

4.4 Nine BRT stations are proposed as part of the project. These are located at:

- Smales Road (NoR 1);
- Accent Drive (NoR 1);
- Ormiston Road – Botany Junction Shopping Centre (NoR 1);
- Dawson Road (NoR 2);
- Diorella Drive (NoR 2);
- Ronwood Avenue (Manukau Central) (NoR 2);
- Manukau Station (NoR 2);
- Corner of Puhinui Road and Lambie Drive (NoR 2); and
- Puhinui Station (NoR 3)

4.5 As part of the project a new BRT bridge crossing the North Island Main Trunkline (NIMT) and connecting to the concourse level of Puhinui Station is proposed, as is a new southbound ramp from SH20B to SH20. Upgrades are also proposed to four existing bridges at:

- Ōtara Creek (NoR 1)
- Te Irirangi Drive over SH1 at Manukau (NoR 2)
- Bridge Street over NIMT in the vicinity of Puhinui Station (NoR 3)
- Waokauri Creek (NoR 4a)



Figure 1: Overview of A2B depicting extents of NoRs



## 5 Te Tupu Ngātahi Supporting Growth - Urban Design Evaluation

- 5.1 I reviewed both the draft and lodged Urban Design Evaluation (**UDE**) and concluded that overall, I support the approach and methodology. In particular I support the opportunities and outcomes identified for the project and consider these to be necessary, as the project develops through the design stages, to ensure appropriate outcomes for safe and attractive urban environments.
- 5.2 As set out in the AEE and described in section 4.3 of this memo, the UDE specifically relates to a portion of the overall Project (approximately 14.9 km) which extends from the Botany Town Centre in the vicinity of Leixlep Lane to Orrs Road in the Puhinui peninsula, off SH20B. The Project primarily involves the upgrade and widening of existing transport corridors to provide for a dedicated BRT corridor and high-quality walking and cycling facilities. An overview of the full corridor is set out in Figure 1.
- 5.3 The UDE evaluates the urban design matters common to all the NoRs against the relevant Design Framework Principles that were established to guide all the projects within Te Tupu Ngātahi. The Design Framework Principles are articulated in Figure 2 below. The full detail of these is attached

System layers	Design Principles
<b>Environment</b>	1.1 Support and enhance ecological corridors and biodiversity
	1.2 Support water conservation and enhance water quality in a watershed
	1.3 Minimise land disturbance, conserve resources and materials
	1.4 Adapt to a changing climate and respond to the microclimatic factors of each area
<b>Social</b>	2.1 Identity and place
	2.2 Respect culturally significant sites and landscapes
	2.3 Adaptive corridors
	2.4 Social cohesion
	2.5 Safe corridors
<b>Built form</b>	3.1 Align corridors with density
	3.2 Corridor scaled to the surrounding context and urban structure
	3.3 Facilitate an appropriate interface between place and movement
<b>Movement</b>	4.1 Connect nodes
	4.2 Connect modes
	4.3 Support access to employment and industry
	4.4 Prioritise active modes and public transport
	4.5 Support inter-regional connections and strategic infrastructure
	4.6 Support legible corridor function
<b>Landuse</b>	5.1 Public transport directed and integrated into centres
	5.2 Strategic corridors as urban edges

Figure 2: Te Tupu Ngātahi Design Framework Principles

as Appendix C to the UDE and include detailed principles, outcomes and measures for Environment, Social, Built Form, Movement and Land Use.

- 5.4 Section 4.1 of the UDE sets out a table with the relevant Design Framework Principle, an explanation of that principle and its application common to all NoRs (see Figure 2). In my opinion this is a robust methodology that has appropriately described the existing context, how the proposed corridor alignment will impact on that and importantly identifies opportunities that can be further refined during the detailed design stage (where applicable). This is further distilled into each of the NoRs to provide specific opportunities, outcomes and recommendations for what needs to be included within Condition 13 to NoRs 1, 2, 3 and 4a, the Urban and Landscape Design Management Plan (**ULDMP**) to achieve these. In my view where these opportunities are identified, it is important that there is also a corresponding condition of consent.
- 5.5 At this stage, only a concept level of design has been undertaken, as the intent is focused on route protection. Overall, the full length of the route proposed is supported as the most appropriate route from an urban design perspective to safeguard for public transport and active modes.
- 5.6 There are existing issues related to connectivity and severance along the corridor, such as along Te Irirangi Drive (NoR 1 and part of NoR 2), some of which will be improved by the opportunities and outcomes the development of the BRT affords and some which may be exacerbated by it, particularly within NoR 3. These are set out in the relevant sections. As stated within the UDE, the proposed corridor alignment and function can support direct access to existing neighbourhood, local, and town centres and open spaces, but these require further development at detailed design stage to support connectivity and reduce severance.
- 5.7 As stated within the UDE the proposed corridor passes through a highly varied urban environment that is planned to change to mixed and denser residential land uses in accordance with the requirements of the NPS-UD and the MDRS. Plan Change 78 to the AUP, which gives effect to those requirements, is currently in the process of expert conferencing, with hearings scheduled to take place in the coming months. The location of the BRT stations will offer the opportunity for higher intensity of development and should support greater connectivity between the station locations and the surrounding neighbourhood.
- 5.8 It is acknowledged the project traverses areas of cultural significance. I note Mana Whenua identified a number of key features of their identify and wider cultural landscape including maunga, moana, awa, marae and papakāinga. These are included within Figure 3. There are opportunities to improve wayfinding and enhance the environment through further collaboration with Mana Whenua, which should inform the conditions for the ULDMP.
- 5.9 I concur with the UDE that the future architectural design response of the BRT stations and supporting infrastructure will need to consider the local context including cultural values and narratives of Mana Whenua, landscape character, the zoning and the opportunities that affords in terms of medium density land uses. I also consider there is an opportunity to incorporate sense of place and identity of existing cultures and communities, for example in locations where there is a large Pasifika or South Asian population these communities should also be able to see themselves in station design. This should be included within the consent conditions.
- 5.10 I note the UDE recommends a CPTED audit of each NoR be carried out and should address the current identified risks identified. I support this and note this is included within clause (e)(iv)A of the ULDMP condition.
- 5.11 It is considered that generally the detailed design matters can be addressed through proposed condition 13 that requires preparation of an ULDMP for all the NoRs to further develop the urban design outcomes and additional urban design opportunities through Outline Plans of Works for each of the NoRs.

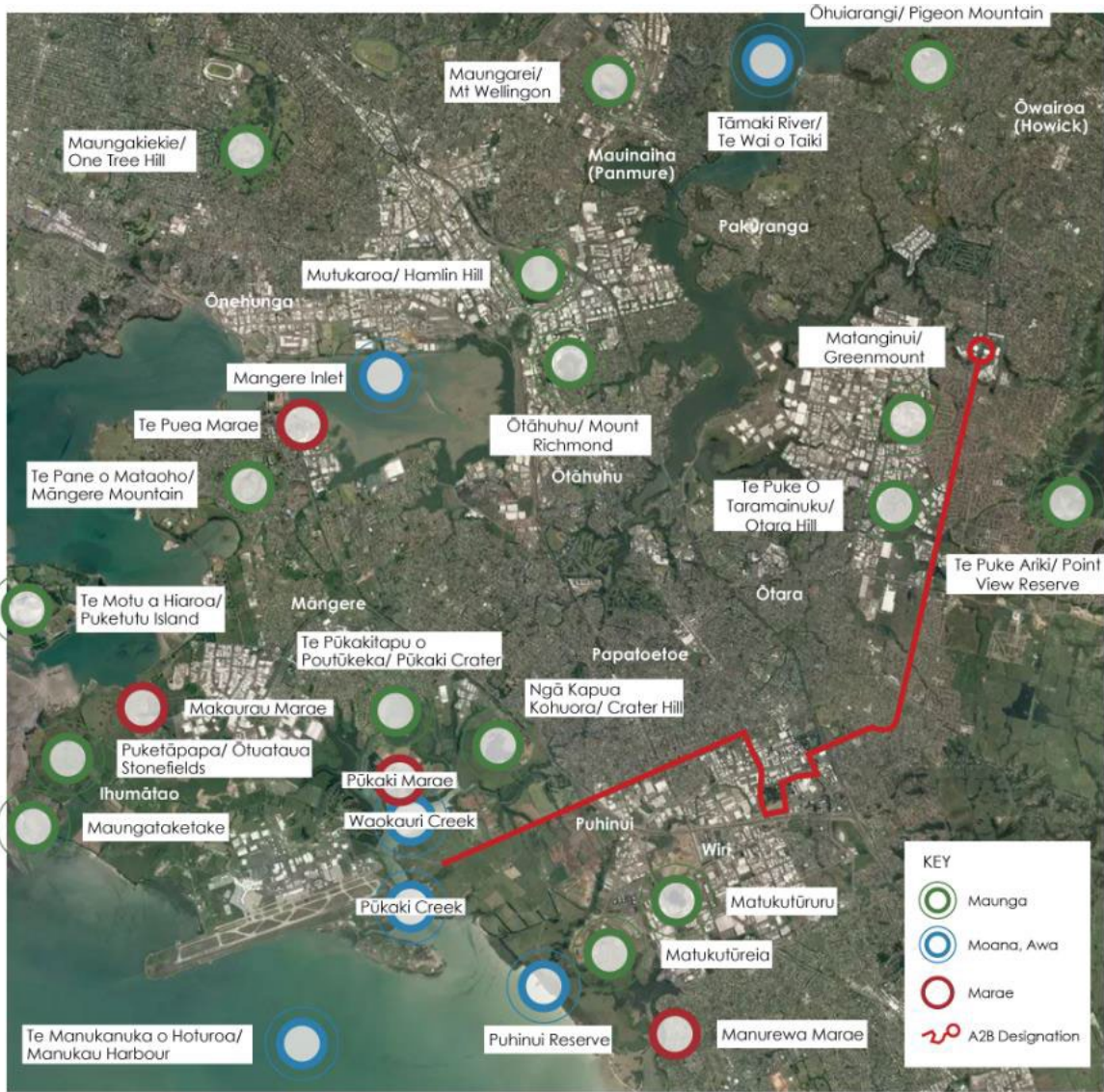


Figure 3: Cultural landscape features, identified with Mana Whenua

## 6 NoR 1 – Botany Town Centre to Rongomai Park

6.1 NoR 1 encompasses the length of Te Irirangi Drive from the southern edge of Botany Town Centre through to Rongomai Park requiring widening of the existing road to accommodate a centre-running BRT corridor, two vehicle lanes in each direction and high-quality walking and cycling facilities (see **Error! Reference source not found.**). This corridor connects Botany to Flat Bush and Botany Junction/ Ormiston centre and provides connection to the wider area via three proposed BRT stations. At present land uses along this extent of the corridor are predominantly residential, with some commercial land, educational, and recreational/open space facilities. The extent is depicted in Figure 4 below.

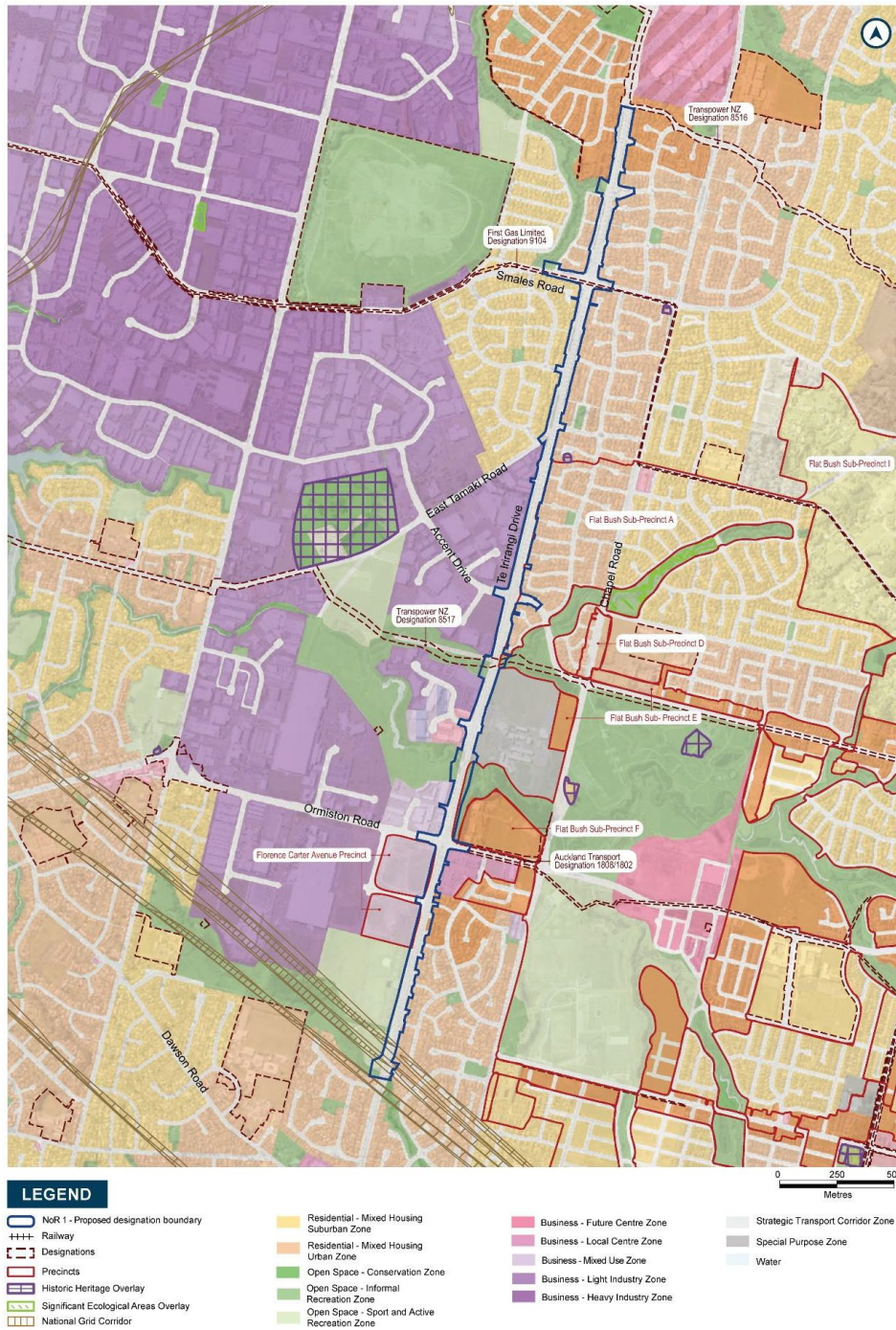


Figure 4: NoR 1 – Botany Town Centre to Rongomai Park

6.2 The locations of the three BRT stations are depicted in Figure 4 through the greater extent of the corridor at Smales Road, Accent Drive and Ormiston Road at the Botany Junction shopping centre. Initially I queried why there was not an additional station at Rongomai Park, given it is a key attractor along the route. However, I accept that it can be served by the stations at Ormiston Road/Botany Junction and Dawson Road.

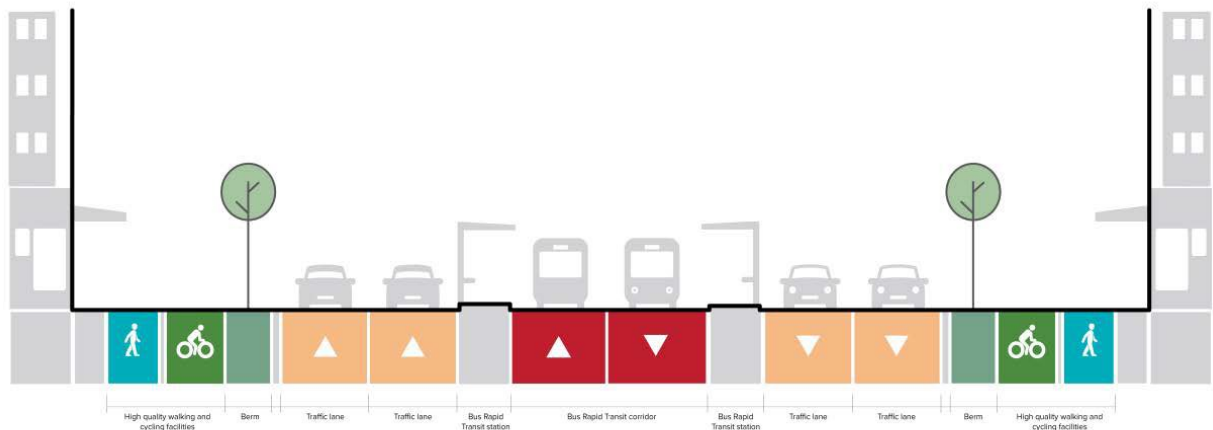


Figure 5: NoR 1 typical cross-section

- 6.3 There are four signalised intersections, three corresponding to the BRT stations and one at Bishop Dunn Place in the vicinity of Sancta Maria Catholic School. No new intersections are proposed. This seems like a lost opportunity to improve the connectivity to the existing environment across Te Irirangi Drive, particularly in the immediate vicinity of Rongomai Park which is a well-used recreation reserve.
- 6.4 The General Arrangement Plan for NoR 1 depicts that the land take to widen the corridor in this location includes the slip lanes that currently provide access to a number of dwellings along the route. It appears these are intended to be repurposed into integrated lanes for walking, cycling and stormwater infrastructure, however no detail of the re-constructed lanes is included in the information provided with the NoRs. It is not clear whether there will still be a berm and or footpath at the property front boundary as there is currently. It is noted within the AEE that existing access arrangement for properties located adjacent to the corridor will be affected. The AEE also states that there are no significant changes to property access in NoR 1, and this was reiterated in the s92 response, however there is no detail on how this will be achieved if the slip lanes that currently provide access to properties are converted into integrated walking and cycling lanes (which of themselves will provide access to all properties by foot or by bicycle). Condition 18 sets out the requirement for preparation of a Construction Traffic Management Plan (**CTMP**) prior to the start of construction. The objective of this is to avoid adverse effects of construction traffic which includes methods to maintain vehicles access to property, to the extent practicable.
- 6.5 The landform along NoR 1 is described within the Landscape Effects Assessment. It is relatively gentle contour throughout, punctuated by the Ōtara and Pakuranga Creeks. From the General Arrangement Plan it appears that where fill batter is proposed to level the landform, this is located around the creek corridors within public land. Similarly, raingardens are proposed along the edges of the route largely around the creek corridors within public land, with the exception of a raingarden within the wider Sancta Maria school site. Notwithstanding comments from ecological, stormwater and landscape specialists, from an urban design perspective these are the appropriate locations for fill batters and raingardens as they can be integrated with the existing landscape and vegetation.

- 6.6 Section 5.1 of the UDE sets out a summary of what should be included within the ULDMP to address project specific outcomes for NoR 1. This is very comprehensive and includes requiring:
- a landscape plan that incorporates recommendations from other specialist assessments including private property reinstatement and treatment of batter slopes, and integrates Ōtara Creek and its tributaries where the corridor intersects with the existing Blue Green network;
  - responses to climate change including landscape enhancement, reinforcing vegetation patterns, stormwater management and flood mitigation;
  - opportunities for input from Mana Whenua;
  - recognition of local community, identity drivers, and sense of place, particularly at key local landmarks and places of interest such as Sancta Maria Catholic Primary School and College, Ormiston Town Centre, Botany Junction shopping centre and the parks and reserves within this part of the corridor;
  - CPTED review to address underpasses and overpasses as well as bridge environments;
  - addressing the potential changes of land use and density as a result of the opportunities both the zoning and the BRT provide;
  - attention to the urban interface with the corridor to ensure this responds to the spatial character and supports a quality public realm, in particular at the three proposed BRT stations within this part of the corridor;
  - ensuring this enhances connectivity and legibility at the micro and macro scales in particular at existing and proposed crossing points and at the many intersections along the route;
  - demonstration of integration of residual land, in particular where these are immediately adjacent to the station locations.
- 6.7 I support inclusion of these recommendations to inform the ULDMP, which is required to be prepared prior to the start of construction for each stage of work. This will ensure the detailed design of the corridor responds appropriately to the principles and project specific urban design outcomes sought.

## **7 NoR 1 Submissions received:**

7.1 Forty-six submissions were received relating to NoR 1. These raise a number of issues of relevance to urban design which set out below under key themes of urban design, extent of corridor, property access and loss of privacy.

### **Urban Design**

7.2 Overall Kāinga Ora (submission NoR1-41) is supportive of the BRT project and the NoRs in part. However, Kāinga Ora considers further information or details are required which may alter some of the conditions. I note that Kāinga Ora has expressed concern with the validity of the advice note associated with Condition 13 (UDLMP) regarding front yard setbacks. This is primarily a planning issue; however, it does affect the relationship of built form to the road and therefore is of interest from an urban design perspective. Kāinga Ora has requested amendments to that condition, I concur with these amendments subject to some reference checks on the titles of documents e.g. Waka Kotahi "Aotearoa Urban Street Guide". I outline these in section 14 of this memo.

7.3 Kāinga Ora considers greater emphasis should be placed on the importance of quality urban design outcomes, including addressing issues of severance and improving connectivity, levels of service, travel mode priority and amenity for pedestrians, cyclists and micro-mobility options. Kāinga Ora is concerned that adequate mitigation for existing and likely severance effects have not been fully considered, through the use of additional mid-block crossings and potentially more stations. I am of a similar view as I consider additional crossings and / or stations would facilitate improved connectivity.

### **Extent of corridor**

7.4 A large number of submitters are concerned with the extent of widening proposed as part of the designation. This is not solely an urban design issue; however, the take of land also affects the built form and public realm outcomes at the edge of the corridor and therefore I am addressing the submissions that raise issues pertinent to urban design here.

7.5 Submitters NoR1-02 and NoR1-17 have been coded to NoR 1, however I note their sites, 53 Te Irirangi Drive and 1 Belinda Avenue respectively, are located within NoR 2. I note submission NoR2-64 is the same as NoR1-17. Notwithstanding the coding, Submission NoR1-02 questions why their property is affected. Looking at the extent of the designation, it appears only the front portion of 53 Te Irirangi is affected by the designation, and the designation also includes land within Manukau Sports Bowl on the northern side of Te Irirangi Drive. 1 Belinda Avenue is one of the properties to the south of Rongomai Park identified as a wetland. I questioned this in the request for further information. I note this still needs to go through detailed design, however it would be helpful if the project team considered whether the stormwater infrastructure in this location could be wholly located within public land in this location to minimise negative effects on individual properties owners.

7.6 Submission NoR-21 by National Mini Storage is seeking no encroachment of existing property boundaries by physical infrastructure, which they consider should be contained within the existing road corridor. Furthermore, any earthworks and battering beyond a property boundary need to be designed in consultation with the relevant property owners to minimise any impact to private land.

7.7 One of the further information requests we asked of Te Tupu Ngātahi was around the edge condition. The response was reference to clause (g) of the proposed ULDMP condition, which was considered to be sufficient. Edge conditions may include batters or low retaining walls or could include shortcrete depending on the slope, however these will need to be designed in greater detail

for the final design and outline plan of works. Importantly the project should attempt to take the least area of land possible to ensure the safe construction and operation of the BRT and associated works.

- 7.8 Similar to National Mini Storage, Kāinga Ora considers a more refined approach to the extent of the corridor is required to ensure only the minimum amount of land required is designated (for both construction and operational needs). This applies to the corridor in its entirety, noting that NoR 1 only appears to be requiring one private property, the rest of the area identified is publicly owned land. I note Condition 3 is a Designation Review condition, requiring review of the extent of the designation following completion of construction and give notice for removal of any parts of the designation no longer required. Kāinga Ora proposes an amendment to that condition requiring periodic review so that the extent of the designation boundary is reviewed every 12 months following the lodgement of the outline plan of works, to ensure this is being continually refined and that land no longer required for construction and operation is uplifted from the designation. While onerous, this seems a sensible approach to minimise disruption to property owners.

### **Property Access**

- 7.9 Submitter NoR1-04 is concerned with maintenance of access to their property as theirs is currently accessed via a slip lane on the western side of Te Irirangi Drive. Similarly Submitter NoR1-08 is concerned that the land providing shared access to 203 – 213 Te Irirangi Drive is included within the designation area and wants to ensure this will not compromise safe access to these properties. A similar concern has been expressed by submitter NoR1-20 whose access is also from a slip lane on the eastern side of Te Irirangi Drive that has been identified for an integrated lane, they are also concerned at potential loss of private yard space to enable the construction of the walkway and cycleway facilities.
- 7.10 As I noted in paragraph 6.4 above, in the AEE and in the s92 Te Tupu Ngātahi states that access for properties within the proposed 'integrated lane' will be retained throughout the project. Notwithstanding I consider that retention of safe and functional access to all properties should be a condition of consent.

### **Loss of Privacy**

- 7.11 Submitter NoR1-03 has a property adjacent to the corridor within close proximity to the Smales Road BRT station and they want to ensure that any new fence maintains their privacy. Submitters NoR1-06 and NoR1-14 share similar concerns about loss of privacy, as their respective properties are both accessed from slip roads adjacent to Te Irirangi Drive.
- 7.12 I note landscape design including fencing and planting is to be addressed within clauses (g) and (h) of the ULDM and consider that this is sufficient to address the submitters' concerns with respect to privacy.



## 8 NoR 2 – Rongomai Park to Puhinui Station in the vicinity of Plunket Avenue

- 8.1 NoR 2 continues along Te Irirangi Drive from Rongomai Park through to SH1, where it crosses into Manukau. The route then wends its way through Manukau Centre, connecting with the bus and train stations before heading northwest along Lambie Drive towards Puhinui Station, in the vicinity of Plunket Avenue. The proposed works include the widening of several existing roads to accommodate a centre-running BRT corridor for the majority of the corridor with the exception of west-running on Davies Avenue along the edge of Hayman Park, which is where the corridor narrows to only include a single lane in one direction. Proposed works also include vehicles lanes and high-quality walking and cycling facilities. A typical cross section for most of the route is depicted in Figure 6 below.

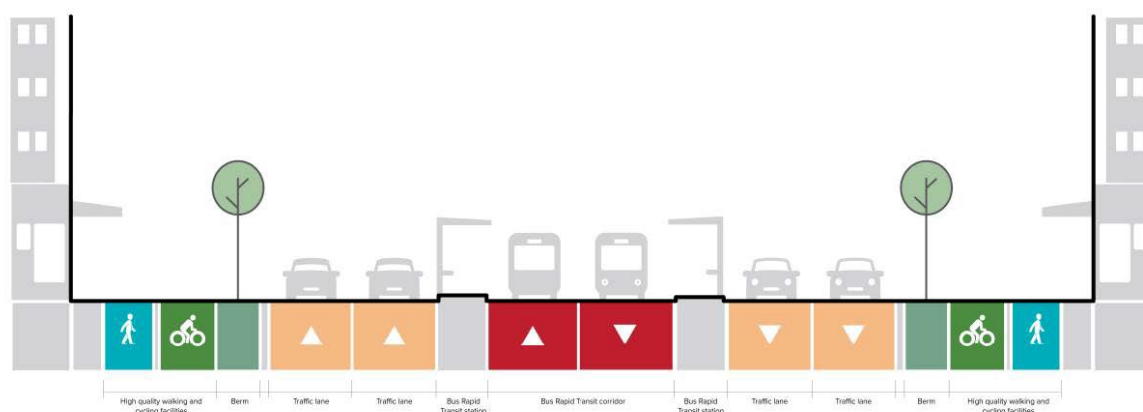
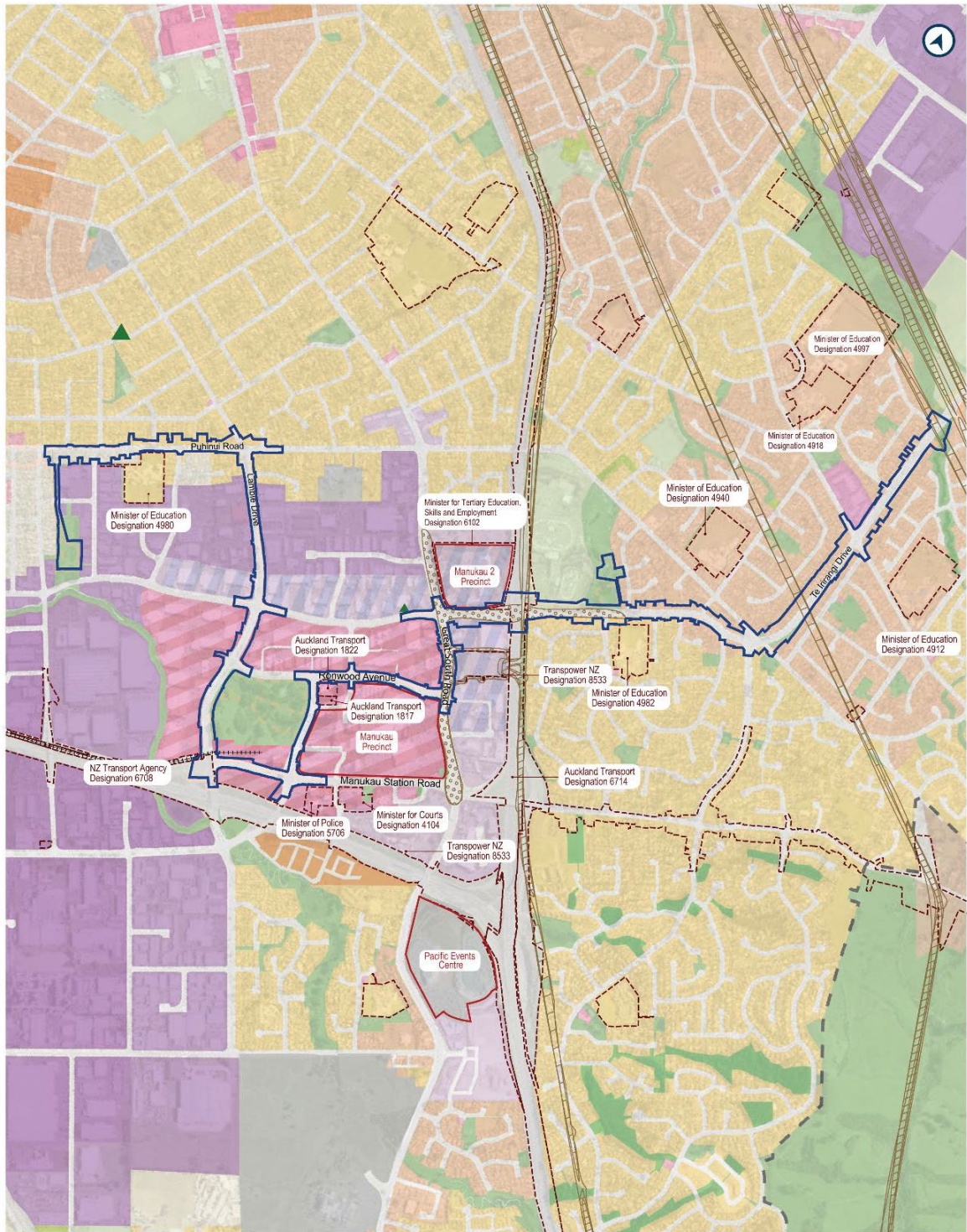


Figure 6: NoR 2 typical cross-section

- 8.2 The existing land uses on the edges of this NoR are varied across its length. The first part of NoR 2 from Rongomai Park through to SH1 is characterised by open space and a mix of residential uses. The central part extends from SH1 through to Lambie Drive and includes a mix of commercial and retail, tertiary education and high density residential supporting the centre. To the west towards Puhinui Station the corridor transitions from business uses to low density residential.
- 8.3 The extent of NoR 2 is depicted in Figure 7. The locations of the five BRT stations are also depicted in Figure 7 through the greater extent of the corridor at Dawson Road and Diorella Drive on the eastern side of SH1, Ronwood Avenue in the heart of Manukau Town Centre, a station linking in with the existing bus and train stations by MIT and a station at the corner of Lambie Drive and Puhinui Road. There are ten existing signalised intersections, some of which correspond to the BRT stations. Three new signalised intersections are proposed, relating to areas of high activity.
- 8.4 The General Arrangement Plan for NoR 2 depicts that the land taken to widen the corridor in this location includes a number of existing residential properties, particularly on the eastern side of SH1. On the southern side of Te Irirangi Drive some large sections of cut are proposed, particularly between Dawson Road and Hollyford Drive. At present very little detail is provided on the cut and fill batters. Where these are located adjoining private properties, it is expected that all solutions should be explored including whether low retaining walls could provide a solution that requires less land take. While not specifically an urban design issue, I note there are a number of rear lots on the northern side of Te Irirangi Drive within this same location. I assume access to these will be maintained when the front properties are acquired. If not, then arguably that should form a condition of consent.

- 8.5 The Landscape Effects Assessment divides NoR 2 into three sections, acknowledging that there are different characteristics not only in existing uses but also landform and hydrology. The first section includes a gentle slope down towards Whetstone and Belinda Avenue towards the stream at the southern edge of Rongomai Park, within Preston Road Reserve. The topography then steadily rises towards the Te Irirangi Drive/ Boundary Road intersection and then levels out as it crosses SH1. From the General Arrangement Plan it appears that fill batter is proposed within the stream corridor in Preston Road Reserve. However, it also appears that a number of private properties are directly affected by the location of the proposed stormwater wetlands/raingardens including 1 and 3 Belinda Avenue and 199 Te Irirangi Drive, 140, 142, 146 and 148 Te Irirangi Drive and 67, 69 and 71 Te Irirangi Drive. This is presumably because there are on the low points along the corridors. I requested further information on the intention for these properties as this will have impacts on the surrounding built environment. The response was that the proposed stormwater infrastructure will be further developed through future consenting and detailed design. Notwithstanding the social impacts of acquiring these properties, as these are only some of the properties identified as being within the NoR 2 designation corridor, it will be important that any solutions are appropriately integrated into the existing landscape and vegetation where these fall within the watercourse corridor or form part of a new feature where these are not.
- 8.6 The second section follows an at-grade gradient along the existing road corridors through central Manukau from the western side of SH1 through to Ihaka Place on Lambie Drive. The key change to landform is described as within Hayman Park. I note there is an area of cut batter proposed on the eastern side of Lambie Drive within the park. The General Arrangement Plan also depicts some areas of fill batter, presumably to level the land where the walking and cycling infrastructure is proposed. These are largely depicted within areas currently used for parking. In these locations the batters offer an opportunity for planting and vegetation enhancement.
- 8.7 The third section follows Puhinui Road between Ihaka Place and Plunket Avenue. This is relatively low lying and has a gentle gradient towards a low point between York Road and Plunket Avenue. There is nothing particularly remarkable about this section from an urban design perspective. Proposed raingardens and enhancement of Puhinui Stream is proposed within this part of the corridor.



**LEGEND**

- NoR 2 - Proposed designation boundary
- Railway
- Designations
- Precincts
- Historic Heritage Overlay
- National Grid Subdivision Corridor
- National Grid Substation Corridor
- Notable Trees Overlay
- Residential - Mixed Housing Suburban Zone
- Residential - Mixed Housing Urban Zone
- Open Space - Conservation Zone
- Open Space - Informal Recreation Zone
- Open Space - Sport and Active Recreation Zone
- Business - Future Centre Zone
- Business - Local Centre Zone
- Business - Mixed Use Zone
- Business - Light Industry Zone
- Business - Heavy Industry Zone
- Strategic Transport Corridor Zone
- Special Purpose Zone
- Water

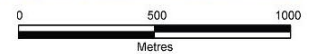


Figure 7: NoR 1 – Rongomai Park to Puhinui Station

8.8 Section 6.1 of the UDE sets out a summary of what should be included within the ULDM to address project specific outcomes for NoR 2. As with NoR 1 this is very comprehensive and includes requiring:

- a landscape plan demonstrating integration of Ōtara Creek and Puhinui Stream and their tributaries where the corridor intersects with the existing Blue-Green Network;
- responses to climate change including landscape enhancement, stormwater management and flood mitigation;
- opportunities for input from Mana Whenua;
- recognition of local community, identity drivers, and sense of place, particularly at key local landmarks and places of interest including Manukau Sports Bowl and Velodrome, AUT South Campus, MIT, Manukau Station, Manukau Centre and Hayman Park;
- CPTED review to address under and over bridge environments and public access walkways, the interface between Hayman Park and the corridor and the Orlando Park frontage;
- addressing the potential changes of land use and density as a result of the opportunities both the zoning and the BRT provide;
- attention to the urban interface with the corridor to ensure this responds to the spatial character and supports a quality public realm, in particular at the five proposed BRT stations within this part of the corridor;
- ensuring this enhances connectivity and legibility at the micro and macro scales in particular at potential mid-block crossing points and at the many intersections along the route;
- demonstration of integration of residual land, in particular where these are immediately adjacent to the station locations.

8.9 I support inclusion of these recommendations to inform the ULDM, which is required to be prepared prior to the start of construction for each stage of work. This will ensure the detailed design of the corridor responds appropriately to the principles and project specific urban design outcomes sought.

## **9 NoR 2 Submissions received:**

9.1 Eighty-one submissions were received relating to NoR 2. These raise a number of issues of relevance to urban design which set out below under key themes of extent of corridor, urban design, and maintenance of property access.

### **Extent of corridor**

9.2 As with NoR 1, a number of individual submitters are concerned with the requirement on their properties within this part of the corridor (including those incorrectly attributed to NoR 1). These include submitters NoR2-02, 04, 05, 06, 09, 47, 58 and 73. The acquisition of land within NoR is to enable widening of the road corridor in these locations for either or both construction and operation of the BRT and in some instances for stormwater infrastructure. This is not solely an urban design issue; however, the take of land also affects the built form and public realm outcomes at the edge of the corridor. It is unclear in some locations why so much land is proposed to be taken and whether this could be further refined prior to any works commencing on site. This alludes to the amendments to condition 3 proposed by Kāinga Ora (NoR2-76), which I support to create more certainty as to the extent of the corridor and how best to address edge conditions.

- 9.3 Submission NoR2-09 relates to a property on the corner of the Lambie Drive and Cavendish Drive intersection. The NoR proposes to take a sizeable area of land predominantly required for the construction of cut and fill batter slopes to integrate the future transport corridor with the site. The site has an existing resource consent that will be affected by the proposed extent of the designation.
- 9.4 Submission NoR2-17 relates to a property at 33 Lambie Drive has a resource consent for a comprehensive redevelopment of the site which includes three buildings and vehicular access that has not been considered in the notice of requirement and will in part be unachievable because of it. The consented development which includes a hotel and two multi-storey commercial buildings, with a proposal for an apartment building (not yet consented) is the type of development envisaged for the zone and that will support a BRT. The submitter is suggesting a realignment of the corridor to avoid their site and taking a small area of Hayman Park.
- 9.5 Submission NoR2-20 has been incorrectly attributed to NoR 2 as the site is actually located within NoR 1. Notwithstanding, this has similar issues to those outlined within submissions NoR2-09 and 17 regarding extent of corridor and retention of access. Where there are existing resource consents, these form part of the environment and need to be taken into account accordingly to ensure that creation of the BRT reinforces rather than stymies the levels of growth anticipated to support it.
- 9.6 Submission NoR2-40 relates to properties at 654 Great South Road and 5 Te Irirangi Drive, including a Countdown supermarket. The submitter notes that batters previously shown along this site boundary have been changed to a retaining wall in the lodged documentation, which the submitter supports, however this has not resulted in a reduction to the extent of designation. The submitter seeks consideration of whether the extent of designation area could be reduced to minimise the impact.
- 9.7 Submission NoR2-56 relates to the Mitre 10 site at 61 Lambie Drive. Mitre 10 supports the intent of the NoR, however the NoR includes a land take of approximately 1,900 m<sup>2</sup> from their site along the eastern edge fronting Lambie Drive, to provide a batter slope. The site is zoned Business – Metropolitan Centre. The submission considers a batter slope is more suited to industrial or low density residential environments that do not need to create a strong street edge. The submission seeks that extent of the NoR be reduced to only the part required to form a signalised intersection and that any additional land taken within the site be temporary for construction purposes only.
- 9.8 Submission NoR2-59 relates to the Bunnings site at 55 Lambie Drive, this submission expresses a similar concern to that raised by Mitre-10 with respect to the proposed batter slope rather than a retaining wall and also seeks consideration of the designation boundary moving further to the east of Lambie Drive.
- 9.9 As I understand it, edge conditions may include batters or retaining walls, or a combination of both depending on the topography and slope and will need to be designed in greater detail for the outline plan of works of prior to starting any construction. It does seem that in locations such as these, edge conditions should be designed to minimise the extent of land needing to be acquired. However, care needs to be taken to ensure retaining walls, in particular, do not create excessive shading or CPTED issues.

### Urban Design

- 9.10 Submissions NoR2-22 and 23 from AUT and Ministry of Education respectively relate to AUT's South Campus at 640 Great South Road, Manukau located opposite the land owned by submitter NoR2-40. There is concern that excessive land is required for batters or a 10m high retaining wall, however there is a lack of information on what the boundary treatment will be and how it will impact

on the main pedestrian access to the site at the corner of Te Irirangi Drive and Great South Road in terms of visibility, accessibility and overshadowing if there is a 10m high retaining wall. Greater detail has been requested regarding the extent of land required, maximum dimensions of the retaining wall and visual depictions including shading analysis.

- 9.11 Submission NoR2-72 is by Eke Panuku. Eke Panuku generally supports the NoR to the extent it is intended to improve the transport network across southern Auckland. However, it has concerns about the impact of NoR 2 on sites it has identified for redevelopment as part of Transform Manukau including the Manukau Sports Bowl, specific sites along Davies Avenue and the Davies Avenue edge of Hayman Park. Eke Panuku has concerns that include the effects the proposed NoR will have on the ability to implement the adopted masterplan for Manukau Sports Bowl; and adverse effects on the urban interface and streetscape design between Hayman Park and Davies Avenue and adverse effects on connectivity between the Park and surrounding streets. Eke Panuku seeks that boundaries be amended and amendment to condition 13 to identify Eke Panuku as a specific organisation required to participate in all stages of the preparation of the ULDMMP and prescribe design guidelines for the ULDMMP to achieve connectivity and integration with existing and planned development.

### **Property Access**

- 9.12 Submission NoR2-12 is concerned at loss of access to the Renaissance Apartments at 18 Ronwood Avenue, in particular loss of access to disabled and ground level parking. Submission NoR2-21 is from the Body Corporate of the Renaissance Apartments at 18 Ronwood Avenue on behalf of the 167 residents expressing similar concerns to NoR2-12. I note approximately 335 m<sup>2</sup> is to be designated along the Ronwood Avenue frontage of the building and the AEE states that affected properties on Ronwood Avenue may be restricted to left-in and left-out access. As an existing residential apartment building, it is important that access is maintained for residents. I note condition 11(vi) requires engagement with landowners whose access is directly affected and condition 18(vi) requires the Construction Traffic Management Plan to include methods to maintain vehicle access to property.

## 10 NoR 3 – Puhinui Station in the vicinity of Plunket Avenue to SH20/SH20B Interchange

10.1 NoR 3 traverses some of the most fine-grained residential part of the corridor along Puhinui Road, extending over the rail-line and connecting in with Puhinui Station. Beyond the station the route continues west to meet SH20/SH20B. The proposed works include the widening of the existing Puhinui Road to accommodate a centre-running BRT corridor, a single vehicle lane in either direction and high-quality walking and cycling facilities (see Figure 8 for a typical cross section along most of this route). As part of the proposed works, a bridge over the NIMT is proposed to connection the BRT with the existing Puhinui Station at the concourse level. This will be the only BRT station within this part of the corridor.

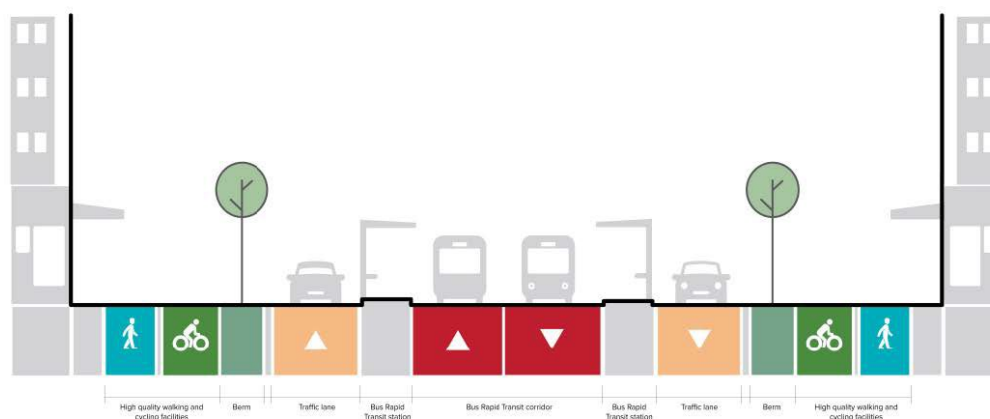
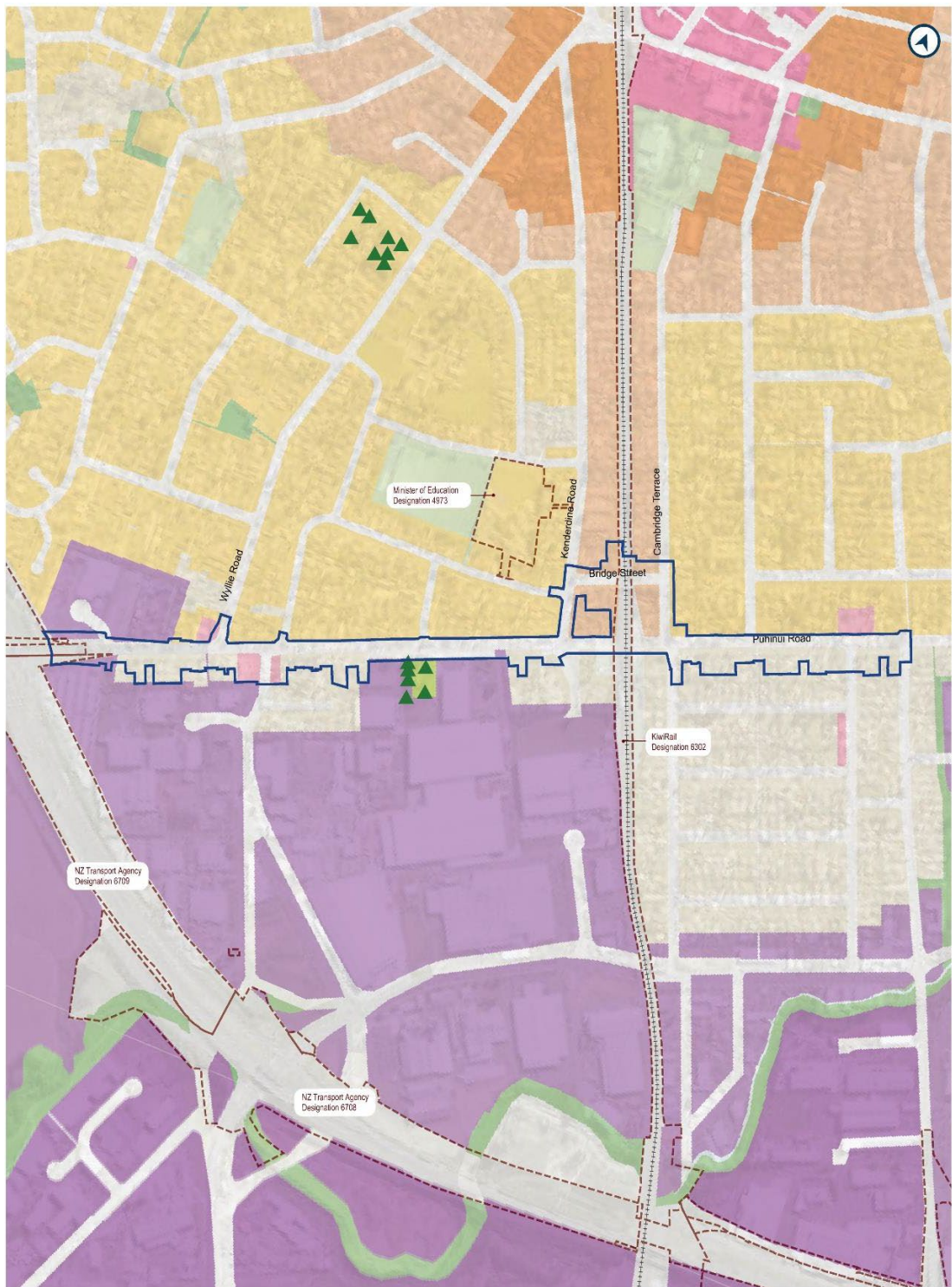


Figure 8: NoR 3 typical cross section

10.2 At present the corridor is a relatively busy arterial with four traffic lanes, few street trees and overhead power lines. There are two existing signalised intersections, no new signalised intersections are proposed. There are no natural watercourses in this part of the corridor, but there are overland flow paths.

10.3 The existing land use is predominantly low-density residential on either side of Puhinui Road with a large area of industrial activity located along the southern side of the road to the west of the main trunk rail line. This part of the route includes Cambria House, a Category B historic heritage building at 250 Puhinui Road zoned for community use. The extent of NoR 3 corridor is depicted in Figure 9.

10.4 The General Arrangement Plan for NoR 3 depicts that the land take to widen the corridor in this location includes a number of properties, particularly along the southern side of Puhinui Road within the vicinity of the proposed bridge to Puhinui Station. From an urban design perspective the bridge structure has the potential to have the greatest negative impact on the immediate residential environment. This has been picked up by the UDE as something that requires inclusion within the ULDMP as set out in paragraph 10.5 below.



**LEGEND**

- |                                       |   |                                |                                   |
|---------------------------------------|---|--------------------------------|-----------------------------------|
| NoR 3 - Proposed designation boundary | Residential - Mixed Housing Suburban Zone     | Business - Future Centre Zone  | Strategic Transport Corridor Zone |
| Railway                               | Residential - Mixed Housing Urban Zone        | Business - Local Centre Zone   | Special Purpose Zone              |
| Designations                          | Open Space - Conservation Zone                | Business - Mixed Use Zone      | Water                             |
| Precincts                             | Open Space - Informal Recreation Zone         | Business - Light Industry Zone |                                   |
| Notable Trees Overlay                 | Open Space - Sport and Active Recreation Zone | Business - Heavy Industry Zone |                                   |

Figure 9: NoR 3 Puhinui Station to SH20/SH20B



10.5 Section 7.1 of the UDE sets out a summary of what should be included within the ULDM to address project specific outcomes for NoR 3. As with NoRs 1 and 2 this is very comprehensive and includes requiring:

- a landscape plan supporting the principles of Auckland's Urban Ngāhere Strategy;
- responses to climate change including landscape enhancement, stormwater management and flood mitigation;
- opportunities for input from Mana Whenua. This has been clearly demonstrated in the recently completed Puhinui Station;
- recognition of local community, identity drivers, and sense of place, particularly at key local landmarks and places of interest including the Puhinui Station precinct, Cambria House, Neighbourhood shops at Wyllie and Noel Burnside Roads and Ranfurly Road, local schools and parks within the corridor;
- CPTED review to address CPTED risks around the station precinct in particular due to the changes in levels and the proposed bridge connecting with the station;
- addressing the potential changes of land use and density as a result of the opportunities both the zoning and the BRT provide;
- attention to the urban interface with the corridor to ensure this responds to the spatial character and supports a quality public realm, in particular at the proposed bridge connecting BRT station at Puhinui station and interchange;
- ensuring this enhances connectivity and legibility at the micro and macro scales in particular at the key intersections along the route;
- demonstration of integration of residual land, in particular where these are immediately adjacent to the station locations.

## **11 NoR 3 Submissions received:**

11.1 Thirty-nine submissions were received relating to NoR 3, including by agencies such as Kāinga Ora noting this has been addressed in section 7 of this memo. These raise a number of issues of relevance to urban design which set out below under key themes of extent of corridor, residential amenity and connectivity and severance.

### **Extent of corridor**

11.2 As with NoRs 1 and 2, a number of individual submitters are concerned with the requirement on their properties within this part of the corridor. These include submitters NoR3-01, 02, 04, 05, 08, 17, 19, 21, 22, 29, 30, 32 and 39. As previously stated, the acquisition of land is to enable widening of the road corridor in these locations for either or both construction and operation of the BRT this is not solely an urban design issue; however, the take of land also affects the built form and public realm outcomes at the edge of the corridor. It is unclear in some locations why so much land is proposed to be taken and whether this could be further refined prior to any works commencing on site. This alludes to the amendments to condition 3 proposed by Kāinga Ora (NoR3-35), which I support to create more certainty as to the extent of the corridor and how best to address edge conditions.

## Residential amenity

11.3 Submission NoR3-26 primarily relates to properties fronting Puhinui Road and those on Bridge Street. It also relates to properties behind those that are identified to be acquired as part of the designation, but that will be impacted by the BRT due to proximity. There is a concern expressed around the effect the construction the BRT bridge will have on the properties below the bridge that will be impacted by overshadowing and noise as a consequence of the new structure. As discussed elsewhere in this memo, it is important that the ULDMP ensures the project manage potential adverse landscape and visual effects. Clauses that should give some assurance include clauses (c), (e), and (g).

## Connectivity and Severance

11.4 Severance is also raised in submission Nor3-26, in particular providing more detail on proposed linkages for pedestrians across the BRT. This has been raised by a number of submitters and is both a transport and urban design issue. As per the Kāinga Ora submission (NoR3-35), I would support additional wording within the ULDMP condition to ensure integration with the existing area and high levels of connectivity and accessibility.

## 12 NoRs 4a and 4b – SH20/20B Interchange to Orrs Road

12.1 NoRs 4a and 4b follow the alignment of Puhinui Road (SH20B). NoR 4a extends from the SH20/SH20B interchange to the intersection with Orrs Road. NoR 4b is a proposed alteration to the existing designation 6717 between the SH20/20B interchange and Memorial Gardens, along the southern side of the road for improvement to the SH20B corridor and for a ramp for southbound traffic.

12.2 NoRs 4a and 4b include the widening of Puhinui Road (SH20B) to accommodate a centre-running BRT corridor through to Manukau Memorial Gardens. From this point, NoR 4a includes widening of SH20B and the BRT corridor shifts south of SH20B through to Orrs Road. Proposed works include high-quality walking and cycling facilities, eastbound lanes to Auckland Airport and a ramp from SH20B onto SH20 for southbound traffic. Typical cross sections are set out below in Figure 10 and **Error! Reference source not found.**

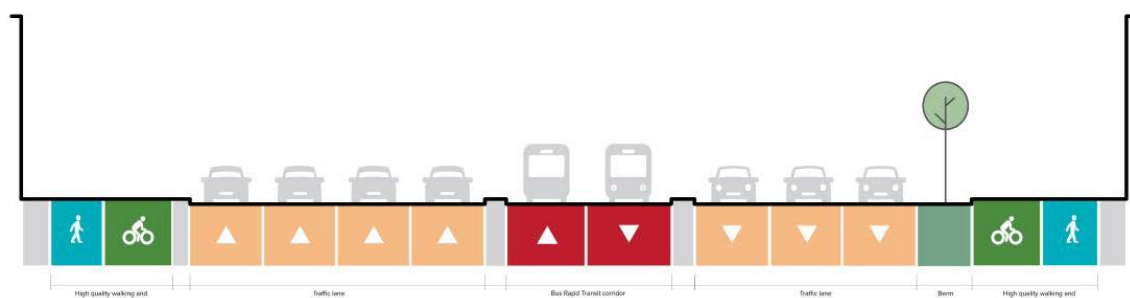


Figure 10: Typical cross section of first part of NoRs 4a and 4b from SH20/SH20B to Manukau Memorial Gardens

12.3 This section of the project corridor is located on the Puhinui peninsula, which is defined by the Otaimako, Pūkaki and Waokauri Creeks. It is of significant cultural value to Mana Whenua, in particular Te Ākitai Waiohū.

12.4 Existing land uses include Manukau Memorial Gardens, which is a significant cemetery on the northern side of Puhinui Road to the west of SH20. The rest of the land along this part of the

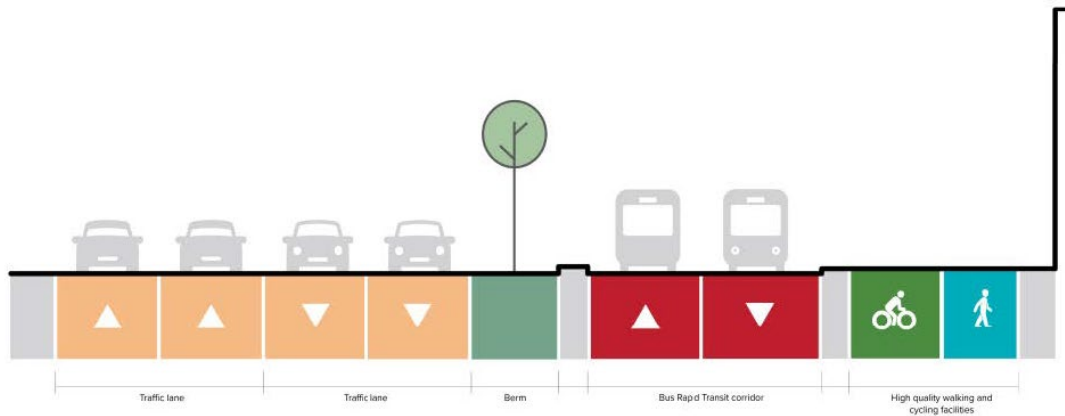


Figure 11; Typical cross section of NoR 4a from Manukau Memorial Gardens to Orrs Road

corridor is currently rural. However, the land to the south of SH20B is zoned for light industry and the land uses are slowly changing in response to the underlying zone. The extent of the corridor is shown in Figure 13 and shows a large area of privately owned land to the south as being required for the proposed works. No stations are proposed within these NoRs.

12.5 On the site visit and as part of a further information request, I queried why no station was proposed for Memorial Drive given it is clearly a key destination and this locality is undergoing development. The s92 response was that at present a local bus service would better serve the catchment, but that there is sufficient width to provide for a BRT station in this location should that be required. I accept that response as having given due consideration to the likely need and viability of a station in this location. I also note that the UDE identifies an opportunity for a future BRT station at the entrance to Manukau Memorial Gardens and I support that.

12.6 The General Arrangement Plan for NoR 4a depicts significant areas of both cut and fill batter along the southern side of SH20B. In my opinion these can be integrated into the overall landscape response.

12.7 Section 8.1 of the UDE sets out a summary of what should be included within the ULDMP to address project specific outcomes for NoRs 4a and 4b. This includes requiring:

- a landscape plan supporting the principles of Auckland's Urban Ngāhere Strategy and reinforcing wider vegetation patterns and creating connections to greenways and the wider walking and cycling network;
- integration of stormwater raingardens and wetlands and measures to demonstrate the project has adapted to climate change;
- opportunities for input from Mana Whenua, particularly given the significance of the Puhinui peninsula to Te Ākitai Waiohū.
- Identification, development and integration of local community and identity drivers including the Manukau Memorial Gardens frontage and entry and Waokauri Creek;

- CPTED review to address CPTED risks around walking and cycling facilities where there is limited passive surveillance and the environment under the overbridge at Waokauri Creek;
- addressing the known and or planned changes of land use;
- attention to the urban interface of the proposed ramp structure from SH20B to SH20;
- ensuring this enhances connectivity and legibility at the micro and macro scales in particular at the vehicular entry to Manukau Memorial Gardens and at key intersections along the route;
- modal integration addressing the potential conflict between the freight function of the corridor and placemaking aspirations.

### **13 NoR 4a and 4b submissions received:**

13.1 Nineteen submissions were received relating to NoR 4a and eleven submissions were received relating to NoR 4b. Of the eleven with respect to NoR 4b, nine of those were common to both NoRs. As this is within the state highway corridor, and relates to land that is currently under development the submissions relevant to urban design relate only to the extent of the land proposed to be taken to widen the corridor.

#### **Extent of corridor**

13.2 Submissions NoR4a-01 and NoR4a-04 generally support the purpose and intent of the NoRs for creation of BRT and walking and cycling facilities. However, like many submitters, they are concerned with the extent of their land required by the designation, more than the 40m setback for road widening they had previously been aware of, which will hamper their development potential and negatively impact on access.

13.3 Submission NoR4a-07 opposed the NoR because it applies to a significant portion of their landholding along Puhinui Road, which it is currently developing in accordance with approved resource consents.

13.4 Kāinga Ora (NoR4a-15) submission is the same for all the NoRs. It proposes amendments to condition 3 to review the extent of land take required at the time the outline plan of works lodged.

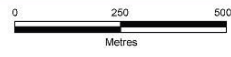
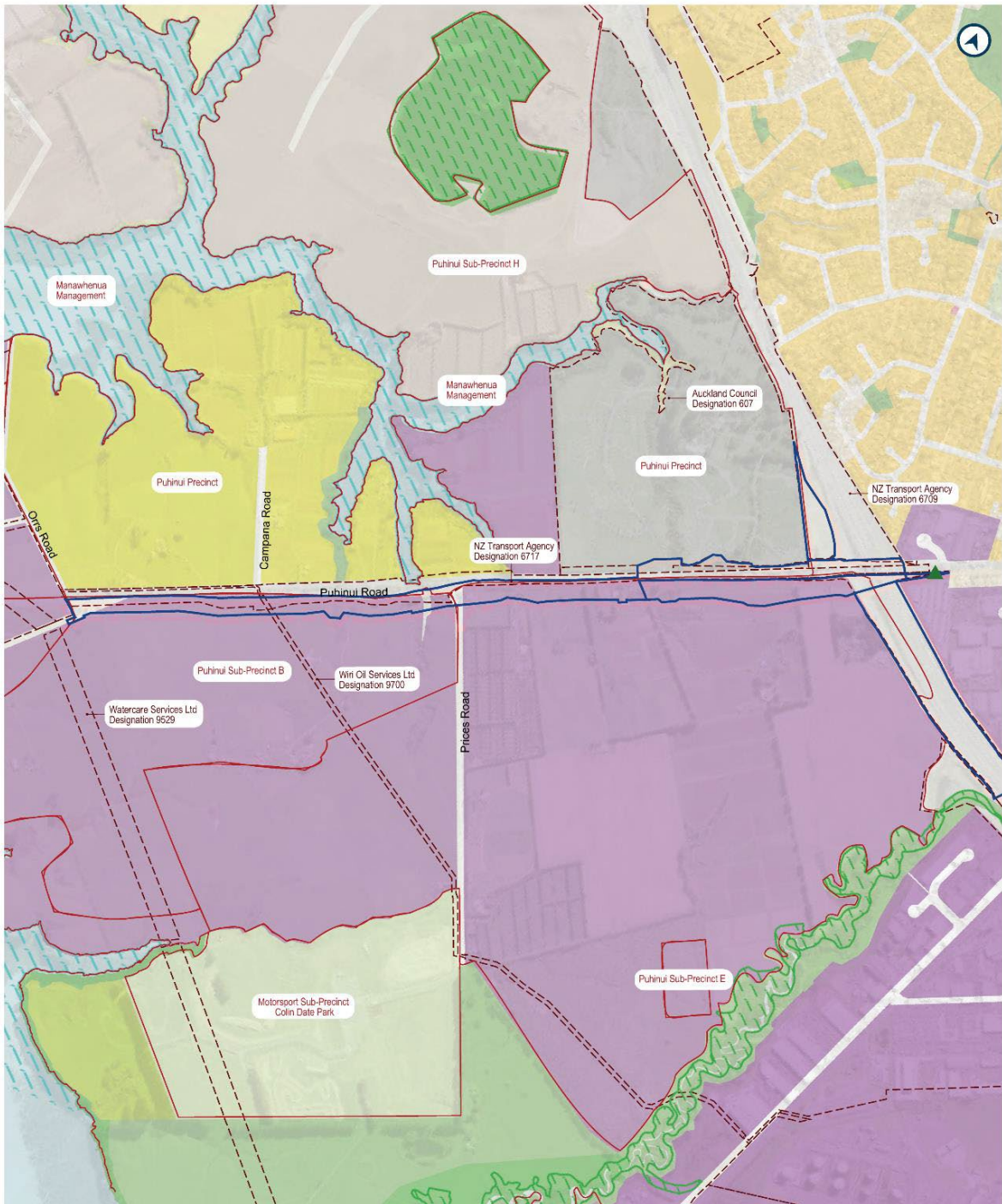


Figure 12: NoRs 4a and 4b SH20/SH20B interchange to Orrs Road

## 14 Conclusion and Recommendations

14.1 As previously stated in this memo, I support the approach and methodology undertaken in the UDE for these NoRs. While this is relatively high level and conceptual at this stage, in my opinion the UDE has appropriately identified the opportunities and outcomes for each NoR that need to be incorporated as the project develops through the design stages. This will ensure appropriate outcomes for safe and attractive urban environments along the full length of the BRT corridor.

14.2 The proposed NoRs present a unique opportunity to connect communities throughout south-eastern Auckland and to support intensification along the corridor, in particular within walkable catchments of the proposed BRT stations. Overall, the full length of the route proposed is supported as the most appropriate route from an urban design perspective to safeguard for public transport and active modes. However, I do agree with many of the submitters that further refinements are required to identify the extent of land proposed for widening and/or construction and ongoing operation, maintenance or mitigation of effects of the BRT to ensure that only the land area actually needed is taken.

14.3 Furthermore, in my opinion further detail is required to ensure:

- good connectivity to the surrounding area, particularly for people walking; and
- sense of place is identified and included within the built environment that reflects not only Mana Whenua but also the demographics of the locality to be meaningful for local communities; and
- appropriate edge conditions are provided for along the corridor, including building setbacks, batters, retaining walls and boundary treatments, that will support ongoing use and or development of sites adjoining and the corridor and a safe and attractive environment for residents, commuters, visitors and recreational users of the walking and cycling facilities.

14.4 I have reviewed the proposed conditions that will apply to the NoRs and make the following recommendations based on the above (underlined for additions and strikethrough for deletions):

### Condition 3: Designation Review

(a) The Requiring Authority shall, within 12 months of lodgement of the outline plan of works:

- in conjunction with the landowner(s), review the extent of designation required for construction purposes and identify any areas that are no longer required for construction or operation of the Project; and
- give notice to the Council in accordance with section 182 of the RMA for the removal of those parts of the designation identified above.

(b) The Requiring Authority shall within 6 months of Completion of Construction ...

### Condition 13: Urban and Landscape Design Management Plan (ULDMP)

(a) A ULDMP shall be prepared in consultation with key stakeholders prior to the Start of Construction for a Stage of Work.

(b) Mana Whenua shall be invited to participate in the development of the ULDMP at least six (6) months prior to the start of detailed design for a Stage of Work to provide input on cultural landscape and design matters. This shall include (but not be limited to) how desired outcomes for the management of potential effects on cultural sites, landscapes and values

identified and discussed in accordance with the Historic Heritage Management Plan (Condition 23) and the Ecological Management Plan (Condition 25) may be reflected in the ULDMP

- (c) The objective of the ULDMP is to:
- (i) enable integration of the Project's permanent works into the surrounding landscape, sense of place and urban context;
  - (ii) ensure that the Project integrates with the existing and proposed active mode network;
  - (iii) ensure that the Project provides for high levels of connectivity, accessibility and safety for all users;
  - (iv) ensure that the Project manages potential adverse landscape and visual effects as far as practicable and contributes to the experience of a quality urban environment for people and communities; and
  - (v) acknowledge and recognise the whakapapa Mana Whenua have to the Project area.
- (d) The ULDMP shall be prepared in general accordance with:
- (i) Auckland Transport's Urban Roads and Streets Design Guide;
  - (ii) Waka Kotahi Urban Design Guidelines: Bridging the Gap (2013) or any subsequent updated version;
  - (iii) Waka Kotahi Landscape Guidelines (2013) or any subsequent updated version;
  - (iv) Waka Kotahi P39 Standard Specification for Highway Landscape Treatments (2013) or any subsequent updated version; ~~and~~
  - (v) Waka Kotahi Aotearoa Urban Street Guide (2023);
  - (vi) Waka Kotahi Integrated Public Transport and Urban Form Guide (tbc);
  - (vii) Auckland's Urban Ngāhere (Forest) Strategy or any subsequent updated version;
  - (viii) Auckland Council's Auckland Design Manual; and
  - (ix) Auckland Council's Transport Emissions Reduction Pathway.
- (e) To achieve the objective, the ULDMP shall provide details of how the project:
- (i) is designed to integrate with the adjacent urban (or proposed urban) and landscape context, including the surrounding existing or proposed topography, urban environment (i.e. centres and density of built form), community infrastructure, natural environment, landscape character, and open space zones and any adopted master plans for the locality;
  - (ii) provides ~~appropriate~~ high quality and safe walking and cycling and micro-mobility connectivity to, and interfaces with, existing or proposed adjacent land uses, public transport infrastructure and walking and cycling connections to the immediate neighbourhoods and wider community;
  - (iii) promotes inclusive access (~~where appropriate~~); and
  - (iv) promotes a sense of personal and public safety by aligning with best practice guidelines, such as:
    - A. Crime Prevention Through Environmental Design (CPTED) principles;
    - B. Safety in Design (SID) requirements; and

- C. Maintenance in Design (MID) requirements and anti-vandalism/anti-graffiti measures.
- (v) provides opportunities to incorporate Mana Whenua values and cultural narrative through the design. This shall include but not be limited to:
  - A. how to protect and enhance connections to the Māori cultural landscape
  - B. how and where accurate historical signage can be provided along the corridor;
  - C. how historical portage routes will be recognised;
  - D. how opportunities for cultural expression through, for example mahi toi, art, sculptures or other public amenity features will be provided;
  - E. how opportunities to utilise flora and fauna with a specific connection to the area are realised where possible by:
    - a. preserving them in the design and maintenance of the Project;
    - b. restoring them in a manner that recognises their historical and cultural significance. For example by clustering planting to represent a lost ngāhere; and
  - F. how the historic and cultural significance of the Puhinui Historic Gateway is recognised; and
  - G. how, public access to coastal areas, waterways and open space is enhanced, where appropriate.
- (vi) provides for an integrated stormwater management approach which prioritises in the following order:
  - A. opportunities for ki uta ki tai (a catchment scale approach);
  - B. opportunities for net catchment benefit;
  - C. green infrastructure and nature-based solutions; and
  - D. opportunities for low maintenance design.
- (f) At the discretion of Mana Whenua, the matters listed in (e)(v) – (vi) shall either be incorporated into the ULDMP or prepared as a separate plan.
- (g) The ULDMP(s) shall include:
  - (i) a concept plan – which depicts the overall landscape and urban design concept, and explain the rationale for the landscape and urban design proposals;
  - (ii) developed design concepts, including principles for walking and cycling and micromobility facilities and public transport; and
  - (iii) landscape and urban design details – that cover the following:
    - A. road design – elements such as intersection form, carriageway gradient and associated earthworks contouring including cut and fill batters and the interface with adjacent land uses, benching, spoil disposal sites, median width and treatment, roadside width and treatment;
    - B. roadside elements – such as lighting, fencing, wayfinding and signage;
    - C. architectural and landscape treatment of all major structures, including bridges and retaining walls;
    - D. architectural and landscape treatment of noise barriers;



- E. landscape treatment of permanent stormwater control wetlands and swales;
  - F. integration of passenger transport;
  - G. pedestrian and cycle and micro-mobility, facilities including paths, road crossings and dedicated pedestrian/ cycle bridges or underpasses;
  - H. property access - including how access to the site and adjacent sites is affected, what changes are proposed and what provision has been made to retain existing levels of amenity and functionality;
  - I. interfaces – how the interface and edge treatment with adjoining properties has been treated, including the treatment / interface with existing slip roads;
  - J. historic heritage places with reference to the HHMP (Condition 23); and
  - K. re-instatement of construction and site compound areas, driveways, accessways and fences.
- (h) The ULDMP shall also include the following planting details and maintenance requirements:
- (i) planting design details including:
    - A. identification of existing trees and vegetation that will be retained with reference to the Tree Management Plan (Condition 26). Where practicable, mature trees and native vegetation should be retained;
    - B. street trees, shrubs and ground cover suitable for berms;
    - C. treatment of fill slopes to integrate with adjacent land use, streams, riparian margins and open space zones;
    - D. planting of stormwater wetlands;
    - E. identification of vegetation to be retained and any planting requirements under the Ecological Management Plan (Condition 25) and Tree Management Plan (Condition 26);
    - F. integration of any planting requirements required by conditions of any resource consents for the project; and
    - G. re-instatement planting of construction and site compound areas as appropriate.
  - (ii) a planting programme including the staging of planting in relation to the construction programme which shall, as far as practicable, include provision for planting within each planting season following completion of works in each Stage of Work; and
  - (iii) detailed specifications relating to the following:
    - A. weed control and clearance;
    - B. pest animal management (to support plant establishment);
    - C. ground preparation (top soiling and decompaction);
    - D. mulching; and
    - E. plant sourcing and planting, including hydroseeding and grassing, and use of eco-sourced species.

**Lisa Mein**

MA (Urban Design), BPlan, MNZPI



## Appendix 1 – 4 Landscape and Visual Memo

### Technical memorandum for a Notices of Requirement (NoRs) Airport to Botany Bus Rapid Transit Project

To: Trevor Mackie, Consultant Planner  
To: David Wong, Senior Policy Planner, Planning Central/South  
From: Rob Pryor, Consultant Landscape Architect, LA4 Landscape Architects

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#### 1. APPLICATION DETAILS

**Applicant's name:** Waka Kotahi NZ Transport Agency (**Waka Kotahi**) and Auckland Transport (**AT**)  
(Applicants)

**Site address:** Te Irirangi Drive (between Rongomai Park and SH1)  
Great South Road (between SH1 and Ronwood Avenue intersection)  
Ronwood Avenue (between Great South Road intersection and Davies Avenue)  
Davies Avenue (between Ronwood Avenue and Manukau Station Road)  
Manukau Station Road (between Davies Avenue and Lambie Drive)  
Lambie Drive (between Manukau Station Road and Puhinui Road)  
Puhinui Road (between Lambie Drive and east of SH20/SH20B)  
Puhinui Road (between the SH20/SH20B interchange and Orrs Road)

#### 2. INTRODUCTION

##### QUALIFICATIONS AND RELEVANT EXPERIENCE

- 2.1. My full name is Robert James Pryor. I am a registered landscape architect and a Director of LA4 Landscape Architects (**LA4**), a position I have held since 1996. I hold a Bachelor of Science degree in Psychology from Otago University (1980) and a post-graduate Diploma of Landscape Architecture from Lincoln University (1984). I am a registered member of Tuia Pita Ora, New Zealand Institute of Landscape Architects, a member of the Resource Management Law Association and member of the Urban Design Forum.
- 2.2. I have over 36 years' experience undertaking landscape assessments for clients in both the public and private sectors on a wide variety of major projects within a range of landscape settings. I specialise in the preparation of landscape and visual effects assessments and have undertaken numerous assessments.
- 2.3. I have been involved in an extensive range of local authority, public and private sector work. As landscape architect for the Wellington City Council, I was responsible for coordinating, designing, and overseeing the implementation of the city's landscape and urban development projects. Since becoming a Director of LA4, I have specialised in visual assessment and landscape evaluation.

- 2.4. Prior to becoming a director of LA4, I worked for the firm for three years as a Landscape Architect (1993-1996). Prior to that I was a Director of Bannatyne Pryor Associates in Wellington (1989-1993) and Landscape Architect for Wellington City Council (1984-1989).

### 3. EXECUTIVE SUMMARY RECOMMENDATIONS

- 3.1. Having considered the NoRs for their natural character, landscape and visual amenity effects considerations, and the associated set of conditions, I consider that the NoRs should be recommended confirmed subject to the recommendations outlined in Section 12, in relation to the use of retaining walls rather than batter slopes to minimise the extent of land uptake required on the adjacent sites.

### 4. NOTICES OF REQUIREMENT

- 4.1. I have reviewed the Applicant's NoRs and the relevant supporting information with reference to the requirements of the relevant provisions in the Auckland Unitary Plan (Operative in Part) (**AUP-OP**) and overarching policy set out the National Policy Statement: Urban Development 2020 (**NPS:UD**), to assist the preparation of the Council's reporting planners' reports under s42A of the RMA.
- 4.2. More specifically, my technical memorandum assesses natural character, landscape and visual considerations and the associated effects on amenity associated with the NoRs and will cover the following matters:
- a. Summary of the NoR Project (Section 5)
  - b. Landscape Effects Assessment (Section 6)
  - c. Cultural landscape values (Section 7)
  - d. Mitigation measures (Section 8)
  - e. Puhinui Station BRT bridge and SH20B-SH20 ramp structure landscape effects (Section 9)
  - f. Submissions relevant to landscape and visual amenity considerations (Section 10)
  - g. Recommendations (Section 11)
- 4.3. In preparing this technical memorandum, I have reviewed the following documents relevant to the NoR applications:
- a. Airport to Botany Assessment of Effects on the Environment, December 2022 (**AEE**)
  - b. Airport to Botany Landscape Effects Assessment, December 2022 (**LEA**)
  - c. Assessment Methodology (Appendix A)
  - d. NoR 1 Figures (Appendix B)
  - e. NoR 2 Figures (Appendix C)
  - f. NoR 3 Figures (Appendix D)
  - g. NoR's 4a and 4b Figures (Appendix E)
  - h. Airport to Botany Assessment of Arboricultural Effects, December 2022 (**AAE**)
  - i. Airport to Botany Assessment of Ecological Effects, December 2022 (**AEcE**)
  - j. Draft Programme Wide Conditions Set, 14 October 2022

k. Submissions received on the NoR applications.

## 5. SUMMARY OF THE PROJECT

5.1. The overall Airport to Botany Bus Rapid Transit (**BRT**) Project will provide an 18 kilometre, dedicated, high capacity, reliable, and frequent BRT corridor and walking and cycling facilities. It is part of Auckland's wider Rapid Transit Network (**RTN**) improving connections between the major centres of Botany, Manukau, Auckland Airport and their employment areas to existing and intensifying residential areas in southern and eastern Auckland.

5.2. Auckland Transport and Waka Kotahi are seeking to authorise a 14.9 kilometre portion of the overall Project which extends from the south of Botany Town Centre to Orrs Road (the **Project**). The remainder of the overall Project will be delivered separately by:

- **Auckland Airport** – BRT corridor and walking and cycling facilities between Orrs Road and the Airport including a bridge across Pūkaki Creek; and
- The **Eastern Busway Alliance** – Botany Station.

5.3. The Project primarily involves the upgrade and widening of existing transport corridors to provide for a dedicated BRT corridor and high-quality walking and cycling facilities. Nine BRT stations are proposed as part of the Project. These stations are generally located at signalised intersections and will be staggered on either side of the intersection.

5.4. These stations are situated in the following locations:

- Smales Road
- Accent Drive
- Ormiston Road – Botany Junction Shopping Centre
- Dawson Road
- Diorella Drive
- Ronwood Avenue (Manukau Central)
- Manukau Station
- Puhinui Road/Lambie Drive; and
- Puhinui Station

5.5. As part of the Project, two new structures are proposed

- A BRT bridge crossing the North Island Main Trunk (NIMT) and connecting to the concourse level of the Puhinui Station; and
- A southbound ramp from SH20B to SH20

5.6. Upgrades to existing structures are proposed at the:

- Bridge over Otara Creek (NoR 1)
- Bridge over SH1 (NoR 2)
- Bridge over NIMT (NoR 3); and
- Bridge over Waokauri Creek.

5.7. Once implemented, the Project will provide:

- A regular and even service pattern so that people can arrive at stations and use the service without the need to refer to a timetable; and
- Evenly spaced BRT stations with bicycle parking and off-board ticketing to reduce dwell times of these services.

5.8. The NoRs are as follows:

- **NoR 1:** Bus Rapid Transit – Botany Town Centre to Rongomai Park (Auckland Transport)
- **NoR 2:** Bus Rapid Transit – Rongomai Park to Puhinui Station in the vicinity of Plunket Avenue (Auckland Transport)
- **NoR 3:** Bus Rapid Transit – Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange (Auckland Transport))
- **NoR 4a:** Bus Rapid Transit – SH20/20B Interchange to Orrs Road (Auckland Transport)
- **NoR 4b:** Alteration to Designation 6717 (Waka Kotahi NZ Transport Agency)



**Figure 1:** Overview of the NoRs for the Airport to Botany Project

## 6. ASSESSMENT OF LANDSCAPE EFFECTS

### Applicant Assessment of Landscape Effects: NoR 1

6.1. NoR 1 follows the alignment of Te Irirangi Drive, extending from the Botany Town Centre, being the northernmost point of the wider Project and the termination of the Airport to Botany corridor, before passing Botany Junction to Rongomai Park. The environment is characterised by the road corridor, open space, residential housing, schools and commercial land.

6.2. The applicant's assessment states in relation to effects during **construction**:

*The Project will be along established road corridors and supports a variety of land uses, including residential, commercial and recreational open space. Construction activities will impact on some of these established zones however it is considered that works within these areas can be readily absorbed and remain associated with the existing transport infrastructure upgrades. This change will be limited to the existing edges of these land uses, and the removal of residential properties will reveal a new 'edge' of development during construction. These revealed properties are similar in their character, visual composition, bulk, scale and land use, as those that will be removed. With the above in mind, it is considered that the level of effect during construction will be low adverse.*

*In terms of **vegetation** effects it is considered during construction and prior to mitigation / replacement tree planting there will be moderate-high temporary adverse effects.*

*The effects on **open space** are considered to be very low adverse due to limited earthworks being largely aligned to the road corridor footprint.*

*The effects on **urban development and land use** are considered to be low adverse due to the Project being along established road corridors supporting a variety of land uses, including residential, commercial and recreational open space.*

*The effects on **natural character** are considered to be low as the route is part of a modified and managed catchment system due to the urbanisation of the area.*

*In terms of **visual amenity** effects the residential viewing audiences are considered to have a higher sensitivity to change than those passing through the area. For this audience the effects are considered to be low-moderate adverse but in keeping with upgrade works occurring within an established major arterial road corridor. The effects are considered to be low for travelling viewers, occupational viewing audiences and visitors to business premises and Sancta Maria School. The effects are considered to be low-moderate adverse for recreational viewing audiences in Kellaway Drive Reserve and low adverse for those in Rongomai Park.*

6.3. The applicant's assessment states in relation to **operational effects**:

*The potential effects on the landscape arise from the permanent physical changes to the receiving environment which may change its characteristics and values. When considering the permanent physical change, changes to the landform, hydrology, vegetation, open space, urban development, land uses in addition to aesthetic qualities and natural character are understood. The change in these attributes, in addition to the presence of permanent elements and structures will also alter the character of an area.*

*In terms of **vegetation** effects, a substantial number of trees are to be removed and it is considered that following construction there will be low adverse effects and when the vegetation is established there will be low beneficial effects..*

*The effects on **open space** are considered to be very low adverse due to limited earthworks.*

*The effects on **urban development and land use** are considered to be very low adverse due to the Project being along established road corridors supporting a variety of land uses, including residential, commercial and recreational open space.*

*In terms of **visual amenity** effects the residential viewing audiences are considered to have a higher sensitivity to change than those passing through the area. For this audience the effects are considered to be very low adverse where the view will continue to be that of a road corridor as currently observed. The effects are considered to be very low beneficial for travelling viewers due to an improved amenity as a result of streetscape enhancement works. For occupational viewing audiences and visitors to business premises and Sancta Maria School the effects are considered to be very low adverse due to the current situation. The effects are considered to be very low adverse for recreational viewers due to the limited physical impact the completed Project will have on the open space.*

*The effects on **natural character** are considered to be very low due to the developed context of the area.*

#### **LA4 Assessment of Landscape Effects – NoR 1**

- 6.4. The NoR 1 works are largely contained within a highly modified urban environment influenced by Te Irirangi Drive. The works are largely contained within the road corridor which reduces the sensitivity of the environment to change as proposed by the Project.
- 6.5. In terms of **landscape effects**, the removal of 683 trees within the road reserve and private land will result in a moderate-high adverse effect initially. The Assessment of Arboricultural Effects recommends replacement planting at a minimum of 2:1 and the replacement of at least 27,084m<sup>2</sup> of mass planted indigenous planting for this section. Proposed condition 9 outlines the requirement for the preparation of an Urban and Landscape Design Management Plan (**ULDMP**) prior to the start of construction to enable the integration of the Project's permanent works into the surrounding landscape and urban context. The ULDMP is to include planting design details including trees to be retained, and proposed street trees, shrubs and ground covers. I consider that the replacement planting proposed in the Assessment of Arboricultural Effects will be appropriate mitigation for the tree removal and should be adhered to. Large grade specimen trees should be used (including grades of 45L, 80L and 160L).
- 6.6. The Project works will have minimal impact on a number of **open space** areas in the vicinity including Kellaway Drive Reserve and Rongomai Park. I consider the effects on **open space** will be very low adverse due to the limited earthworks being largely aligned to the road corridor footprint and I concur that following construction, landscape values on the open space will be similar to those currently experienced.
- 6.7. In terms of **landscape character** it is considered that there will be a high degree of change to the character of the area particularly during construction activities. This will be resultant from earthworks, construction equipment and machinery, realignment and alteration of roads and berms. This will result in low-moderate adverse landscape character effects for the duration of the works. The works are largely in the vicinity of the road corridor which will reduce their



impact. Following construction and implementation of the ULDMP mitigation measures I consider there will be low adverse landscape character effects.

- 6.8. Effects on **natural character** will be restricted to earthworks within a highly modified urban environment. I consider that any adverse effects during construction will be low, and very low following construction.
- 6.9. Temporary **visual effects** will result from construction activities, elements and structures during the course of the Project. Permanent visual effects will result following the construction of the Project and include the completed elements and structures including the widened road corridor, lighting poles, signage and proposed landscape mitigation planting and street trees.
- 6.10. In terms of recreational viewing audiences in Kellaway Drive Reserve and Rongomai Park, I consider there will be low adverse visual effects due to the limited extent of works and degree of visibility. For commercial viewing audiences, their sensitivity to change will be low due to commercial activities being an established part of the area and as such there will be low adverse visual effects. Travelling viewing audiences are transient in nature and views will be experienced for a short duration. Views will also be experienced along the general alignment of an existing road corridor and the visual effects will not be too dissimilar to those currently experienced (apart from the widened corridor and new structures including the BRT stations). I consider for this audience the adverse visual effects will be low and not incongruous in such an environment.
- 6.11. Residential viewing audiences will be the most sensitive to change, living locally and occupying a large area along the edges of Ti Rakau Drive. These residents are also located within the environs of the existing road corridor. The residential properties along Ti Rakau Drive and the newly exposed 'front row' properties will be exposed to close views. During construction activities there will be moderate to high adverse visual effects due to the proximity of the works and the disruption it will bring. Following construction and implementation of the proposed mitigation measures required through the ULDMP, the adverse visual effects will be low and not too dissimilar to currently experienced. Views from more distant residential areas will be filtered by intervening vegetation and buildings within the line of sight. Views from these areas will be within the context of the existing built form and road corridor and the adverse visual effects will be low.

#### **Applicant Assessment of Landscape Effects: NoR 2**

- 6.12. NoR 2 has been broken into three sections for the purpose of the assessment. Section A of NoR 2 extends from Rongomai Park which adjoins the western end of Te Irirangi Drive to State Highway 1 (SH1). Key features of this section include a tributary of the Ōtara Creek, the open space nature of Rongomai Park, a tributary of the Ōtara Creek and the Manukau Sports Bowl which has a heavily vegetated / tree lined frontage. Section A contains a range of residential zones from Single House zone to Mixed Housing Urban and Terrace Housing and Apartment Buildings zones.
- 6.13. Section B of NoR 2 extends from the east of the SH1 to Ihaka Place on Lambie Drive, through the Manukau Central. The existing environment consists of a mix of commercial, high density residential and retail land uses.

6.14. Section C of NoR 2 is between Lambie Drive / Ihaka Place and Puhinui Station and consists of a variety of residential properties including single dwellings to more intensive mixed housing. Ihaka Place is the interface between residential and business zoning.

6.15. The applicant's assessment states in relation to effects during construction:

*In terms of **landform and hydrology** effects, being within an urbanised landscape the topographical and hydrological patterns have been largely modified. Localised earthworks will be required for the widened road corridor. As such the adverse effects are considered to be very low to low.*

*In terms of **vegetation** effects it is considered that the removal of 433 protected trees during construction and prior to mitigation / replacement tree planting there will be moderate temporary adverse effects. The effects of vegetation removal within the Manukau Sports Bowl will result in a moderate-high adverse effect. Removal of vegetation along the road corridor will result in moderate adverse effects.*

*The effects on **open space** are considered to be very low adverse due to limited earthworks being largely aligned to the road corridor footprint. The effects on Puhinui Domain are considered to be very low adverse due to limited access and amenity.*

*The effects on **urban development and land use** are considered to be low to very low adverse due to the Project being along established road corridors supporting a variety of land uses, including residential, commercial (Manukau Central) and recreational open space.*

*The effects on **natural character** are considered to be low as the route is part of a modified and managed catchment system due to the urbanisation of the area. Minor works are proposed within the stream tributaries.*

*In terms of effects on **aesthetic qualities**, the effects primarily relate to vegetation removal within the Manukau Sports Bowl resulting in a moderate-high adverse effect. Removal of vegetation along the road corridor will result in moderate adverse effects.*

*In terms of **visual amenity** effects, the residential viewing audiences are considered to have a higher sensitivity to change than those passing through the area. For this audience the effects are considered to be low to moderate adverse but in keeping with upgrade works occurring within an established major arterial road corridor. The proposed Puhinui Bridge will result in high adverse effects for residential viewing audiences in close proximity. The effects are considered to be low to low-moderate adverse for travelling viewers, and low adverse for occupational viewing audiences and visitors to business premises, Redoubt North School and Puhinui School. The effects are considered to be low adverse for recreational viewing audiences in Rongomai Park, Orlando Reserve and Hayman Park.*

6.16. The applicant's assessment states in relation to **operational effects**:

*In terms of **landform and hydrology** effects, being within an urbanised landscape the topographical and hydrological patterns have been largely modified. Localised earthworks will be required for the widened road corridor, stormwater ponds and modified tributary to the Puhinui Stream. As such the adverse effects are considered to be very low to low.*

*In terms of **vegetation** effects it is considered that the proposed mitigation / replacement tree planting once established will provide a greater contribution to the area and provide greater*

*presence through urban ngahere and the establishment of placemaking identity, resulting in very low beneficial effects.*

*The effects on **urban development and land use** are considered to be low to very low adverse due to the Project being focussed along established road corridors supporting a variety of land uses, including residential, commercial (Manukau Central) and recreational open space. It is acknowledged that future development realised through the NPS:UD, notably occurring around the proposed BRT stations along Te Irirangi Drive will contribute to urban intensification within the area.*

*In terms of effects on **aesthetic qualities**, the removal of the distinctive Washingtonia Palms along Te Irirangi Drive will remain an adverse effect during operation of the Project. Landscape planting along the corridor will result in low adverse to very low beneficial effects.*

No mention is made on the adverse effects on the Manukau Sports Bowl.

*The effects on **natural character** are considered to be very low beneficial through opportunities to enhance the park and associated tributary and stormwater pond.*

*In terms of **visual amenity** effects, the residential viewing audiences are considered to have a higher sensitivity to change than those passing through the area. For this audience the effects are considered to be very low to moderate adverse but in keeping within an established major arterial road corridor. The proposed Puhinui Station BRT Bridge will result in moderate adverse effects for residential viewing audiences in close proximity, particularly on the northern side of Puhinui Road. The effects are considered to be very low adverse to very low beneficial for travelling viewers, and very low adverse for occupational viewing audiences and visitors to business premises, Redoubt North School and Puhinui School. The effects are considered to be low adverse for recreational viewing audiences in Rongomai Park, Orlando Reserve and Hayman Park. There will be low beneficial effects on Puhinui Domain due to the upgraded stormwater pond.*

#### **LA4 Assessment of Landscape Effects – NoR 2**

- 6.17. The NoR 2 works are similarly contained within a highly modified urban environment influenced by Te Irirangi Drive, the commercial characteristics of Manukau Central and Lambie Drive, and the residential activities between Ihaka Place and Plunket Avenue. Again, the works are largely contained within the road corridor which reduces the sensitivity of the environment to change as proposed by the Project.
- 6.18. In terms of **landscape effects**, the removal of 404 protected trees within the road reserve and open space zoned areas will result in a moderate-high adverse effect initially. The Assessment of Arboricultural Effects recommends replacement planting at a minimum of 2:1 and the replacement of mass planted indigenous planting for this section. Proposed condition 9 outlines the requirement for the preparation of an Urban and Landscape Design Management Plan (**ULDMP**) prior to the start of construction to enable integration of the Project's permanent works into the surrounding landscape and urban context. The ULDMP is to include planting design details including trees to be retained, and proposed street trees, shrubs and ground covers. I consider that the replacement planting proposed in the Assessment of Arboricultural Effects will be appropriate mitigation for the tree removal and should be adhered to. Large grade specimen trees should be used (including grades of 45L, 80L and 160L).

- 6.19. The Project works will have minimal impact on the open space areas in Orlando Reserve, Hayman Park and Puhinui Domain. The removal of vegetation along the road frontage to the Manukau Sports Bowl will have temporary adverse effects on the open space qualities of the open space due to its existing aesthetic qualities visually screening the road corridor and providing visual relief to the more sparsely vegetated urban environment which surrounds it. The ULDMP needs to address this area in providing suitable mitigation for the vegetation removal.
- 6.20. In terms of effects on **landscape character** it is considered that there will be a high degree of change to the character of the area particularly during construction activities. This will be resultant from earthworks, construction equipment and machinery, realignment and alteration of roads and berms and the construction of the Puhinui Station BRT bridge. This will result in low-moderate to moderate adverse landscape character effects for the duration of the works. The works are largely in the vicinity of the road corridor which will reduce their impact. Following construction and implementation of the ULDMP mitigation measures I consider there will be low adverse landscape character effects. The Puhinui Station BRT bridge will have adverse effects on the landscape character values in the vicinity of the structure. The UDLMP conditions (9(e)(iii)c.) require the architectural and landscape treatment of all major structures, including bridges and retaining walls to be addressed to integrate the Project's permanent works into the surrounding landscape and urban context. I consider this is an appropriate condition to minimise the adverse effects on landscape character of the Puhinui Bridge on the surrounding area.
- 6.21. Effects on **natural character** will be restricted to earthworks and vegetation removal within several tributaries and the stormwater pond in Puhinui Domain. Any adverse effects during construction are considered to be low, and very low following construction. There will be positive effects to Puhinui Domain through the enhanced tributary and stormwater pond.
- 6.22. Temporary **visual effects** will result from construction activities, elements and structures during the course of the Project. Permanent visual effects will result following the construction of the Project and include the completed elements and structures including the widened road corridor, Puhinui Station BRT bridge, lighting poles, signage and proposed landscape mitigation planting and street trees. The residential viewing audiences will have a higher sensitivity to change than those passing through the area. For this audience the effects are considered to be low to moderate adverse but in keeping within an established major arterial road corridor. The proposed Puhinui Station BRT bridge will result in moderate adverse effects for residential viewing audiences in close proximity, particularly on the northern side of Puhinui Road. The UDLMP condition (9(e)(iii)c.) requires the architectural and landscape treatment of all major structures, including bridges and retaining walls to be addressed to integrate the Project's permanent works into the surrounding landscape and urban context. I consider this is an appropriate condition to minimise the adverse visual amenity effects of the Puhinui Station BRT bridge on the surrounding area.
- 6.23. I consider the visual amenity effects to be low to very low adverse for travelling viewers, and very low adverse for occupational viewing audiences and visitors to business premises, Redoubt North School and Puhinui School. The effects are considered to be low adverse for recreational viewing audiences in Rongomai Park, Orlando Reserve and Hayman Park. There will be low beneficial effects on Puhinui Domain due to the upgraded stormwater pond. Recreational viewers within the Manukau Sports Bowl will be exposed to views of the Project due to the removal of the stand of mature vegetation along the road frontage. The ULDMP needs to address this area in providing suitable mitigation for the vegetation removal.

### **Applicant Assessment of Landscape Effects: NoR 3**

6.24. NoR 3 includes Puhinui Road from the Puhinui Station to the SH20/SH20B interchange. The existing environment along Puhinui Road consists of a mix of business – commercial, light industrial and residential uses, with residential being the most influential land use in the eastern part of this section. Light industrial development is predominately located to the south of Puhinui Road, occupying just under half of the interface with the road corridor. The corridor is a busy arterial road with four traffic lanes, few street trees and overhead power lines. As set out in the AEE it is anticipated that additional intensification is likely to occur at all residential zoned land, existing centres and around the proposed BRT stations as envisioned by the NPS:UD.

6.25. The applicant’s assessment states in relation to effects during **construction**:

*In terms of **landform and hydrology** effects, being within a highly modified landscape the topographical and hydrological patterns have been largely modified. Localised earthworks will be required for the widened road corridor. As such the adverse effects are considered to be very low.*

*In terms of **vegetation** effects it is considered that the removal of 30 protected trees, including the notable tree within Puhinui Road during construction and prior to mitigation / replacement tree planting there will be moderate to high adverse effects.*

*The effects on **urban development and land use** are considered to be low adverse due to the Project being along an established road corridor supporting a variety of land uses, including residential, commercial and industrial.*

*In terms of effects on **aesthetic qualities**, the adverse effects primarily relate to the removal of the notable Flowering Gum resulting in moderate adverse effects. Construction machinery in the context of the proposed Puhinui Station BRT bridge will have moderate adverse effects on the aesthetic qualities and legibility of Cambria House.*

*There are considered to be no adverse effects on **natural character** or **open space**.*

*In terms of **visual amenity** effects, for the residential viewing audience west of the Puhinui Station BRT bridge, the effects are considered to be low moderate adverse but in keeping with the existing road environment. For the residential viewing audience in the vicinity of the Puhinui Station BRT bridge the adverse effects during construction will be high. For residential viewing audiences beyond the immediate road interface the adverse effects are considered to be moderate.*

*The adverse effects are considered to be low-moderate for travelling viewers within the context of the existing road corridor and very low to low-moderate adverse for occupational viewing audiences and visitors to business premises, Te Kohanga Reo ki Puhinui and the Kingdom Hall of Jehovah’s Witnesses. There are no recreational viewing audiences in the NoR 3 corridor.*

6.26. The applicant’s assessment states in relation to NoR 3’s **operational effects**:

*In terms of **landform and hydrology** effects, localised earthworks will be required for the widened road corridor and Puhinui Station BRT Bridge. As such the adverse effects are considered to be very low.*

*In terms of **vegetation** effects it is considered that the while the landmark values of the flowering gum will be in part mitigated by the overall density of proposed trees within the road corridor the adverse effects will be low.*

*The effects on **urban development and land use** are considered to be very low adverse in the context of the existing urbanised land use and future intensification enabled by the NPS:UD.*

*In terms of effects on **aesthetic qualities**, due to the proposed tree plantings along the road corridor the adverse effects are considered to be very low. The Cambria House site will remain as a landmark historic feature along the road corridor.*

*There are considered to be no adverse effects on **natural character** or **open space**.*

*In terms of **visual amenity** effects, for the residential viewing audience west of the Puhinui Station BRT bridge, the effects are considered to be very low adverse. For the residential viewing audience in the vicinity of the Puhinui Station BRT bridge the adverse effects will remain to be high. For residential viewing audiences beyond the immediate road interface the adverse effects are considered to be low-moderate.*

*The adverse effects are considered to be very low for travelling viewers within the context of the existing road corridor and very low to low adverse for occupational viewing audiences and visitors to business premises, Te Kohanga Reo ki Puhinui and the Kingdom Hall of Jehovah's Witnesses. There are no recreational viewing audiences in the NoR 3 corridor.*

#### **LA4 Assessment of Landscape Effects – NoR 3**

- 6.27. The existing environment along Puhinui Road consists of a mix of business – commercial, light industrial and residential uses. The Project works are similarly contained within the road corridor which reduces the sensitivity of the environment to change as proposed by the Project.
- 6.28. In terms of **landscape effects**, the removal of 30 protected trees within the road reserve including the scheduled Flowering Gum will result in a moderate-high adverse effect initially. The Project works will have no adverse effects on **natural character** or **open space** values due to the highly modified road corridor environs and lack of public reserves.
- 6.29. In terms of **landscape character** I consider that there will be a high degree of change to the character of the area particularly during construction activities. This will be resultant from earthworks, construction equipment and machinery, realignment and alteration of roads, construction of the Puhinui Station BRT bridge, and berms. This will result in low-moderate adverse landscape character effects for the duration of the works. The works are largely in the vicinity of the road corridor which will reduce their impact. Following construction and implementation of the ULDMP mitigation measures I consider there will be low adverse landscape character effects.
- 6.30. Temporary **visual effects** will result from construction activities, elements and structures during the course of the Project. Permanent visual effects will result following the construction of the Project and include the completed elements and structures including the widened road corridor, Puhinui Station BRT bridge, lighting poles, signage and proposed landscape mitigation planting and street trees.
- 6.31. Views will be experienced for the travelling audience along the general alignment of an existing road corridor and the visual effects will not be too dissimilar to those currently experienced

(apart from the widened corridor and new structures including the Puhinui Station BRT bridge). I consider for this audience the adverse visual effects will be low and not incongruous in such an environment.

- 6.32. Residential viewing audiences will be the most sensitive to change, living locally and occupying a large area along the edges of Puhinui Road. These residents are also located within the environs of the existing road corridor. The residential properties along Puhinui Road will be exposed to close views. During construction activities there will be moderate to high adverse visual effects due to the proximity of the works and the disruption it will bring. Following construction and implementation of the proposed mitigation measures required through the ULDMP, the adverse visual effects for most of the viewing audience will be low and not too dissimilar to currently experienced. For the residential viewing audience on the northern side of Puhinui Road in the vicinity of the Puhinui Station BRT bridge the adverse visual amenity effects will remain to be high. The UDLMP condition (9(e)(iii)c.) requires the architectural and landscape treatment of all major structures, including bridges and retaining walls to be addressed to integrate the Project's permanent works into the surrounding landscape and urban context. I consider this is an appropriate condition to minimise the adverse visual amenity effects of the Puhinui Station BRT bridge on the surrounding area.
- 6.33. Views from more distant residential areas will be filtered by intervening vegetation and buildings within the line of sight. Views from these areas will be within the context of the existing built form and road corridor and the adverse visual effects will be low.

**Applicant Assessment of Landscape Effects: NoR 4a and 4b**

- 6.34. NoRs 4a and 4b follow the alignment of Puhinui Road (SH20B). The existing designation is characterised by the road corridor which features a double lane carriageway, flush central median and Shared Use Path on the northern side, east of SH20 and shifting to the southern side of the road at Manukau Memorial Gardens. Beyond the road extent is a mix of landscape characteristics including the Manukau Memorial Gardens, commercial premises, agricultural and horticultural land, some of which is being earthworked for future commercial development.
- 6.35. The applicant's assessment states in relation to effects during **construction**:

*In terms of **landform and hydrology** effects, being within an area characterised by past arable farming to the south of SH20B, the effects on natural hydrological values will be high adverse and low adverse for landform.*

*In terms of **vegetation** effects the works will not require the removal of any protected trees and only require the removal of a small are of riparian vegetation to enable piling works. As such, the adverse effects will be low.*

*The effects on **urban development and land use** are considered to be low adverse due to the Project being along an established road corridor flanked by Light Industrial zoning which will significantly change the current land use.*

*In terms of effects on **aesthetic qualities**, views and visual coherence of the established land to the north will remain largely as present, with views to the south impacted on future light industrial uses. The adverse effects are assessed as low.*

Effects on **natural character** will be in relation to the removal of a 48.5m length of intermittent tributary associated with the Waokauri Creek and two natural wetlands. The adverse effects are assessed as moderate until mitigation measures take effect following construction.

In terms of **visual amenity** effects, residential viewing audiences are limited and largely associated with the current agricultural land uses. Activities enabled by the industrial zoning in the future are likely to replace this viewing audience. The residential viewing audience on the northeaster side of SH20 in the vicinity of Hillside Road will be exposed to construction activities related to the proposed ramp structure, however these will be seen with the context of the existing motorway outlook.

The adverse effects are considered to be very low for travelling viewers within the context of the existing road corridor. Viewers within the Manukau Memorial Gardens will be exposed to views towards the ramp structure and works along SH20B however these are considered to be low adverse.

6.36. The applicant's assessment states in relation to **operational effects**:

In terms of **landform and hydrology** effects, localised earthworks will be required for the widened road corridor and excavations to enable waterway crossings. As such the adverse effects are considered to be low-moderate adverse.

In terms of **vegetation and open space** effects it is considered that resultant from the proposed riparian planting around the affected tributary and wetland margins and proposed tree planting the adverse effects will be low-moderate initially reducing to low adverse on establishment.

The effects on **urban development and land use** are considered to be very low adverse in the context of future intensification enabled by the AUP:OP.

In terms of effects on **aesthetic qualities**, including views and visual coherence, these will remain similar on the northern side of SH20B with the expanse of the Manukau Memorial Gardens. The aesthetic qualities on the southern side of SH20B will change significantly through the industrial zoning of the land. In light of these factors, any residual effects are considered to be very low.

Adverse effects on **natural character**, particularly in relation to streams and wetlands, are considered to be very low, being addressed by mitigation measures as part of future consenting processes.

In terms of **visual amenity** effects, for the residential viewing audiences along the corridor route, any residual effects are considered to be very low adverse due to the ramp structure been viewed as part of the SH20 and SH20B road corridor infrastructure.

The adverse effects are considered to be very low for travelling viewers given the established nature of the existing road corridor along SH20B. Viewers within the Manukau Memorial Gardens will be exposed to views towards the ramp structure and works along SH20B however the at-grade works are unlikely to be discernible due to existing vegetation along the southern edge of the gardens and these are considered to be very low adverse. View towards the ramp structure will be seen within the context of the existing road corridor and will be low adverse.



#### **LA4 Assessment of Landscape Effects – NoR 4A and 4b**

- 6.37. The existing environment along SH20B is characterised by the road corridor, the Manukau Memorial Gardens and agricultural activities on the northern side, and agricultural, horticultural and commercial activities on the southern side zoned for light industrial activities (earthworks and road already commenced for a large development).
- 6.38. In terms of **landscape character** effects I consider that there will be a low degree of change to the character of the area during construction due to the existing infrastructure associated with both SH20 and SH20B. This will result in low adverse landscape character effects for the duration of the works. The works are in the vicinity of the existing road corridor, extending into the land on the southern side of SH20B, zoned for light industrial activities, which will reduce their impact. Following construction and implementation of the ULDMP mitigation measures I consider there will be very low adverse landscape character effects.
- 6.39. Effects on **natural character** will relate to the removal of the intermittent tributary associated with the Waokauri Creek and two natural wetlands. I consider that the adverse effects will be moderate until mitigation measures are implemented following construction. Following the establishment of riparian planting around the tributary and wetlands, I consider that there will be very low adverse effects.
- 6.40. Temporary **visual effects** will result from construction activities, elements and structures during the course of the Project. Permanent visual effects will result following the construction of the Project and include the completed elements and structures including the widened road corridor, ramp structure, lighting poles, signage and proposed landscape mitigation planting and street trees.
- 6.41. Views will be experienced for the travelling audience along the general alignment of an existing road corridor and the visual effects will not be too dissimilar to those currently experienced (apart from the widened corridor and the new ramp structure). I consider for this audience the adverse visual effects will be very low and not incongruous in such an environment.
- 6.42. Residential viewing audiences will be very limited along the alignment, due to the existing commercial, agricultural and horticultural activities and light industrial zoning of the surrounding land to the south and part north of SH20B. Residential audiences to the northeast, accessed off Hillside Road, will be exposed to views towards the ramp structure, albeit viewed within the context of the existing SH20 and SH20B road corridor environs. During construction activities there will be low-moderate adverse visual effects due to the proximity of the works.
- 6.43. Following construction and implementation of the proposed mitigation measures required through the ULDMP, the adverse visual effects for most of the viewing audience will be very low and not too dissimilar to currently experienced (other than the proposed ramp structure which will be mitigated under proposed UDLMP condition (9(e)(iii)c.). Views from more distant residential areas will be filtered by intervening vegetation and buildings within the line of sight. Views from these areas will be within the context of the existing built form and road corridor and the adverse visual effects will be very low.

#### **7. CULTURAL LANDSCAPE VALUES**

- 7.1. The LEA acknowledges that the Project traverses areas of cultural significance. As set out in the AEE, Manawhenua have been involved as partners through the NoR phase of the Project. The

LEA recommends the following measures to appropriately recognise the cultural landscape in the future phases of the Project:

- Manawhenua are involved as partners in the future design of the Project;
- Opportunities to provide appropriate wayfinding and signage are explored in partnership with Manawhenua;
- Opportunities are identified to enhance water quality and restore streams within the Project area;
- Provision is made for tree planting within and adjacent to the Project corridor to represent an urban ngahere;
- Opportunities are identified to acknowledge cultural narratives in the design of Project elements, in particular the proposed BRT bridge connecting to Puhinui Station and bridge structure from SH20B to SH20; and
- Opportunities are identified to acknowledge cultural narratives in the design of Project elements.

7.2. I consider that engagement with Manawhenua is a key component to the Project by providing opportunities to enhance cultural values and sites by incorporating cultural recognition and that these are appropriate measures to recognise the cultural landscapes in the vicinity of the Project.

## **8. MITIGATION**

- 8.1. The LEA notes in considering the nature of the Project and the anticipated change to the receiving environment, there are a number of measures which will help to mitigate the natural character, landscape and visual effects associated with the Project. Recommended mitigation measures for construction and operation are considered in a Project wide context, i.e. across all NoRs. The primary means of mitigating the effects is noted as being through design responses to be illustrated in an Urban and Landscape Design Management Plan (**ULDMP**).
- 8.2. The mitigation of operational effects includes (in addition to Project wide recommendations) specific recommendations relating to works associated with the Puhinui Station BRT Bridge and the SH20B to SH20 Ramp Structure.
- 8.3. The following mitigation measures are proposed as part of the Project.

### **MANAWHENUA PARTNERSHIP**

- 8.4. Engagement with Manawhenua is a key component of the Project including input into the ULDMP. This includes but is not limited to:
- Appropriate use of Te Aranga principles;
  - Treatment of residual open spaces;
  - The selection and supply of plant species and planting designs;
  - The potential for enhancement of habitat associated with the kawau (black shag) and other identified areas of customary importance such as the Tāmaki River; and
  - Opportunities to enhance cultural values and sites by incorporating cultural recognition elements into features of the project. Cultural recognition elements may include Māori carvings and/or art, pou and/or other cultural features and/or markers to recognise and provide for the cultural relationship of mana whenua with the land directly affected by the Project.

- 8.5. I consider that engagement with Manawhenua is a key component to the Project by providing opportunities to enhance cultural values and sites by incorporating cultural recognition.

#### **URBAN AND LANDSCAPE DESIGN MANAGEMENT PLAN**

- 8.6. A comprehensive ULDMP is to be prepared. The objective of the ULDMP is to enable integration of the Project's permanent works into the surrounding landscape and urban context and ensure that the Project manages potential adverse landscape and visual effects as far as practicable and contributes to a quality urban environment.

- 8.7. The ULDMP includes but is not limited to:

- Urban design details for the works including the form and detaining of structures;
- Landscape design details for the works;
- Architectural and landscape treatment of all major structures, including BRT stations, Puhinui Road bridge, embankments, bridges and retaining walls;
- Landscape mitigation measures for Hayman Park;
- Landscape treatment of all permanent stormwater control wetlands and swales;
- Lighting, signage and street furniture details;
- Integration with adjacent properties;
- All large specimen trees to be a minimum planter bag size of 160 litre, small trees to be 45 litre, shrubs 2 litre and groundcovers 1 litre;
- Pedestrian and cycle facilities including paths, road crossings and dedicated pedestrian/cycle bridges or underpasses;
- Design features and methods for cultural expression and in order to reflect outcomes agreed through manawhenua engagement;
- Design features associated with the management of stormwater, including both hard and soft landscaping; and
- A maintenance plan and establishment requirements over a three-year period for landscaping and five years for specimen trees following planting.

#### **CONSTRUCTION SPECIFIC MITIGATION MEASURES**

- 8.8. Mitigation measures to be implemented during construction are outlined under Section 9 including limiting works areas, minimising earthworks, minimising vegetation removal, installing construction hoardings with interpretive material regarding the project and minimising construction lighting.

#### **OPERATIONAL MITIGATION MEASURES**

- 8.9. Operational Mitigation Measures are outlined under Section 10 to address potential adverse effects on landscape character and values, natural character and visual amenity covering:
- Transport corridor
  - BRT Stations
  - Vegetation/planting
  - Integration with adjacent properties

- Stormwater infrastructure
- Hayman Park
- Puhinui Station BRT Bridge
- SH20B-SH20 ramp structure

8.10. In terms of the Transport Corridor the LEA recommends:

- *Design the road to be the minimum width and have the minimum number of lanes practicable, particularly at intersections, to reduce the visual and physical severance impacts of the corridor.*
- *Provide trees and planting along the transport corridor to reinforce the existing planted character, soften the interface with adjoining uses, reduce the apparent width of the corridor, define views towards landmarks and highlight key nodes*

8.11. I consider the BRT Station mitigation measures are appropriate and include high quality design outcomes and incorporation of tree planting to signalise the stations along the corridor. Manawhenua input will provide local contextual naming of the BRT stations that will support placemaking and wayfinding.

8.12. In terms of vegetation mitigation the LEA recommends:

- *Consider initiatives from local Iwi to incorporate culturally significant planting or landscaping elements*
- *Provide for predominantly native planting palette*
- *Use street tree planting for shade as well as to soften the edges of the transport corridor, creating a pleasant walking and waiting environment*
- *Use planting to screen off the Project from adjacent private properties where adverse effects will require mitigation and frame orientation views, while increasing the amenity of the Project.*

8.13. I consider these are appropriate measures to assist integrate the Project into the surrounding landscape.

## **9. PUHINUI STATION BRT BRIDGE AND SH20B-SH20 RAMP STRUCTURE LANDSCAPE AND VISUAL EFFECTS**

9.1. The LEA has not specifically undertaken a detailed assessment of the Puhinui Station BRT Bridge and SH20B-SH20 Ramp Structure due to the unknown details of the structures (at this NoR stage). Mention is made throughout the report as follows:

*For those directly opposite the proposed Puhinui BRT bridge, permeant change will be more apparent and depending on the location of the viewing audience in relation to the bridge, views will be of the ramp abutments or columns with the underside of the bridge visible near the crossing of Cambridge Terrace where it will require a 5.8m clearance. For these viewing audiences, properties located on the northern side of Puhinui Road, the change will be particularly adverse. Although there are obvious aspects of the activity that relate to the road environment, the size and scale of the bridge will be contrary to the established character of outlooks for these viewing audiences. As such it is considered that up to moderate adverse effects will occur following mitigation.*

*For residential viewing audiences positioned directly opposite the proposed Puhinui Station BRT bridge, it is anticipated that change will not be in keeping with the low rise residential nature which currently exists. It is considered that adverse effects during construction will be high for residents.*

*As set out in detail in the AEE, it is anticipated that additional intensification is likely to occur at all residential zoned land, existing centres and around the proposed BRT stations as envisioned by the NPS:UD. Therefore, there is likely to be an increase in the residential viewing audience on the northern side of Puhinui Road adjacent to the BRT bridge. As such it is considered that if the future developed environment is established after the BRT bridge effects will be up to high adverse.*

9.2. Section 10.3 and 10.4 of the LEA states:

*In addition to the matters outlined above, it is recommended that the following measures are considered to mitigate landscape and visual effects associated with the Puhinui Road BRT bridge:*

- *Consideration given around the form, function and exterior appearance of bridge including embankments, walls, abutments, depth, columns and underside;*
- *Planting on the southern side of Puhinui Road within the HANA; and*
- *Street tree and shrub planting in the northern berm of Puhinui Road, in particular adjacent to the Puhinui BRT bridge.*

*In addition to the matters outlined above, it is recommended that the following measures are considered to mitigate landscape and visual effects associated with the proposed ramp structure from SH20B to SH20 for southbound traffic:*

- *Consideration given around the form, function and exterior appearance of the ramps and bridge including embankments, walls, abutments, depth, columns and underside; and*
- *Incorporation of any cultural narratives developed with Manawhenua.*

9.3. I concur that the Puhinui Station BRT Bridge and SH20B-SH20 Ramp Structure works are largely in the vicinity of the road corridor and within the context of an established transport orientated environment which reduces their impact. I consider that the above mentioned ULDMP and Operational Mitigation Measures will assist to more fully integrate the structures into the landscape.

## **10. SUBMISSIONS RELEVANT TO LANDSCAPE AND VISUAL AMENITY CONSIDERATIONS**

10.1. I have reviewed the submissions in relation to the NoRs. There were a number of submissions in relation to landscape and visual matters as follows:

### **NoR 1**

- Earthworks and batters to be designed in consultation with property owners to minimise impacts.
- Consider a retaining wall rather than a batter slope.
- Visual impacts due to the establishment of hoarding and changed wayfinding during construction.
- Enormous reduction in trees and the urban ngahere canopy coverage across this area.
- Decreased visual amenity.
- Residential amenity effects.

- Loss of trees.
- Oppose the removal of trees lining both sides of the corridor along Te Irirangi Drive.

#### **NoR 2**

- The NoR2 as it affects the site does not appear to be required for widening of the existing carriageway, but is to be used to provide a fill batter slope and residual land.
- As submitted, the NoR2 is disenabling of this outcome, in providing for and protecting a batter slope supporting the road and residual land beyond, thus preventing the streetscape outcome promoted by the BMC zoning of the site.
- Adverse visual and amenity effects, including as a result of effects from construction activities (e.g., noise and dust, traffic) surrounding Countdown Manukau.
- Loss of mature trees along Te Irirangi Drive frontage.
- Batter slopes are more suited to industrial and low-density residential environments and are inappropriate in metropolitan centres.
- Adverse visual and amenity effects, including as a result of the proposed BRT station, encroachment on Hayman Park and a hard western alignment of the BRT which reduces permeability and legibility.
- Line of Norfolk Pine trees down centre of Lambie Drive will be lost, including their ecological purposes and attractive visual backdrop. Loss of trees and grassed median will mean less soakage for rainwater and a significant ecological loss. Loss of the trees will also mean a loss of outlook from our unit.
- AT has not adequately considered alternative methods for undertaking the A2B Project works in the vicinity of the Property, including a retaining wall instead of the batter slopes.
- Concern at widening of Lambie Drive including batters rather than retaining wall, and maintenance of two existing two-way site accesses.
- The batters previously shown along the northern site boundary have been changed to a retaining wall in the lodged documentation. This is supported as it results in less permanent impact on the site.

#### **NoR 3**

- Any earthworks and battering extents beyond the existing property boundary are to be designed in consultation with the relevant property owners to minimise any impact to private land and maintain the same utility of the said land.
- Further assessment needs to be undertaken of how existing historic features, such as the Gardener's Cottage and garden planting could be accommodated into the design of the proposed designation corridor to enable adaptation, interpretation, and landscaping to avoid removal and replacement with new landscaping and where possible interpretation.
- Residential amenity - project will severely negative impact all of the residents' quality of life.
- Oppose the removal of trees lining both sides of the corridor along Te Irirangi Drive.

#### **NoR 4a**

- The extent of NoR4A is greater than the 40m set-back, including 10m landscaping yard for accommodation of the Puhinui Heritage Gateway, that already applies to NZSHL's land to provide for future possible transport requirements in accordance with the Puhinui Precinct provisions. the NoR4A additionally does not appear to recognise or make provision for this 10m landscape yard.
- Need to make provision for a 10m landscape yard and the Puhinui Heritage Gateway.
- Removal of trees and increase in hard surfaces.
- Earthworks and batters to be designed in consultation with property owners to minimise impacts.

- Consider a retaining wall rather than a batter slope.

10.2. As outlined in the submissions a number of submitters are concerned at the extent of land required for the sloped batters. I consider that earthworks and batters should be designed in consultation with property owners to minimise the land required for the works and that the utilisation of retaining walls should be investigated to minimise impacts on the adjacent land, particularly for properties within NoRs 1-3. Retaining walls should be considered rather than a batter slope in areas where space is limited.

10.3. In relation to the other submissions, I consider that the proposed mitigation measures outlined and in particular the implementation of measures outlined in the ULDMP will appropriately integrate the Project's permanent works into the surrounding landscape and urban context and ensure that the Project manages potential adverse landscape and visual effects as far as practicable.

## **11. ADEQUACY OF INFORMATION**

11.1. The above assessment is based on the information submitted by the Applicant as part of the applications for the NoRs. I consider that the information submitted is sufficiently comprehensive to enable the consideration of natural character, landscape and visual effects considerations and the associated effects on amenity:

- a. I consider that the level of information provides a reasonable understanding of the nature and scope of the proposed activity as it relates to the AUP-OP.
- b. The extent and scale of any adverse effects on the environment in terms of natural character, landscape and visual effects are able to be assessed.

## **12. NoR RECOMMENDATIONS**

12.1. Having considered the NoR applications and their natural character, landscape and visual amenity effects considerations, and the associated set of conditions, I consider that the NoRs should be recommended confirmed.

12.2. I consider that earthworks and batters should be designed in consultation with property owners to minimise the land required for the works and that the utilisation of retaining walls should be investigated to minimise impacts on the adjacent land, particularly for properties within NoRs 1-3. Retaining walls should be considered rather than a batter slope in areas where space is limited.



**Rob J Pryor**

Registered NZILA Landscape Architect

28 April 2023







## Appendix 1 – 5 Flooding Memo

### Technical memorandum for Notices of Requirement for Airport to Botany Bus Rapid Transit Project: Flooding

To: Trevor Mackie – Consultant Reporting Planner on behalf of Auckland Council Plans and Places

And to: David Wong – Senior Policy Planner, Auckland Council Plans and Places  
Susan Andrews – Principal Planner, Auckland Council Healthy Waters

From: Amber Tsang – Consultant Planner on behalf of Auckland Council Healthy Waters  
Zheng Qian – Senior Healthy Waters Specialist, Auckland Council Healthy Waters

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#### 1. Introduction

My name is Amber Tsang. I am a Senior Associate Planner at Jacobs. I have prepared this technical memorandum at the request of Auckland Council Healthy Waters (**Healthy Waters**).

I have worked as a consultant planner for Healthy Waters since 2016 and have over 15 years of experience in planning and resource management. I have a Bachelor of Planning (Hons) degree from the University of Auckland and have been a full member of the New Zealand Planning Institute since 2012.

This memo has been written between myself and Zheng Qian, Senior Healthy Waters Specialist at Auckland Council Healthy Waters.

Zheng Qian has an overseas Bachelor of Science degree and a Master of Engineering Studies (Hons) degree from the University of Auckland. Zheng has worked as senior Healthy Waters Specialist in the catchment planning team of Healthy Waters since 2010 and has 20 years of experience in infrastructure and catchment planning, mainly in the field of stormwater management.

#### 2. Overview and scope of technical memorandum

Auckland Transport and Waka Kotahi NZ Transport Agency (**Applicant**), as requiring authorities, have served the Council with Notices of Requirement (**NoRs**) for the Airport to Botany (**A2B**) Bus Rapid Transit Project (**the Project**). The five NoRs are as follows:

- **A2B NoR 1:** Bus Rapid Transit – Botany to Rongomai Park (Auckland Transport).
- **A2B NoR 2:** Bus Rapid Transit – Rongomai Park to Puhinui Station, in the vicinity of Plunket Avenue (Auckland Transport).
- **A2B NoR 3:** Bus Rapid Transit – Puhinui Station, in the vicinity of Plunket Avenue to SH20/20B Interchange (Auckland Transport).
- **A2B NoR 4a:** Bus Rapid Transit – SH20/20B Interchange to Orrs Road (Auckland Transport).
- **A2B NoR 4b:** Alteration to Designation 6717 State Highway 20B – State Highway 20 to Auckland International Airport (Waka Kotahi NZ Transport Agency).

The NoRs were publicly notified (at the request of the Applicant) on 10 March 2023. The submission period ended on 11 April 2023.

This technical memorandum is prepared to assist the preparation of the Council's reporting planner's report for the NoRs under s 171 of the RMA and focusses on the assessment of flood hazard effects only. Assessment of other stormwater effects will be addressed as part of a future regional consenting process.

In preparing this memorandum, we have reviewed the following documents relevant to the NoRs:

- a. Airport to Botany Assessment of Flooding Effects, Version 1, dated December 2022;
- b. Airport to Botany Assessment of Effects on the Environment (**AEE**), Version 1, dated December 2022;
- c. NoR 1, 2, 3 and 4a Form 18 Attachment C, Proposed Conditions for the Designation, dated 9 December 2022;
- d. NoR 4b Form 18 Attachment C, Proposed Designation Condition, dated 8 December 2022; and
- e. Submissions received raising flood related matters.

### 3. Summary of Applicant's flood assessment

The Project traverses four major stormwater catchments: Pakuranga Creek, Ōtara Creek/Flat Bush, Puhinui Creek and Pūkaki Waokauri Creek. Apart from the Pūkaki Waokauri Creek catchment, the other three catchments are fully urbanised along the proposed designation. Sections of the Project route will be located within or will intersect existing flood plains, particularly on Puhinui Road and Te Irirangi Road, and there are residential and commercial properties outside of the proposed designation boundary that are already at risk of flooding.

Healthy Waters have existing catchment models available for all four stormwater catchments and have provided the models to the Applicant at their request. All the models are catchment scale and were produced based on Auckland Council Stormwater Flood Modelling Specifications (November 2011 version). The models are 1D and 2D dynamically coupled hydraulic models and consist of 1D stormwater reticulation, stream channels, 2D flood plains and overland flow paths. All manholes, inlets and outlets lying within the catchment boundary associated with pipes greater than 300 mm diameter that are located downstream of a hydrological loading node are included in the model. Pipes smaller than 300 mm are included in some cases where required to ensure connectivity.

The Applicant has subsequently modified the four models provided to identify flooding risks along the Project route. The details of adjustments made by the Applicant to the models were not provided in their Assessment of Flooding Effects (**Assessment**) that was submitted as part of the NoRs. The Assessment stated that existing roads and culverts where the culverts are 600 mm or greater were included in the models and assumed to be operational. Existing culverts smaller than 600 mm diameter were assumed to be fully blocked. We have concerns over this methodology and have addressed it in Section 4 of this memo.

To date, the Applicant has only modelled the pre project scenario as the base case with the purpose being to identify areas which could potentially be subject to increased flood risks. **The post project flood models for the Project have not been developed or assessed.** The base case scenario modelled consists of the pre project terrain with Maximum Probable Development (**MPD**) and 100-year Average Recurrence Interval (**ARI**) plus climate change rainfall (2.1 and 3.8 degree increase).

The Applicant has proposed that the post project models will be developed during detailed design when a final Project alignment is developed, and future modelling will be used to ensure and confirm that flood effects associated with the Project will be adequately mitigated<sup>1</sup>. This is

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<sup>1</sup> Refer to Section 3.5.3 of the Applicant's Assessment of Flooding Effects.

considered acceptable as details of the Project alignment are not available at this stage. The use of MPD land use for the wider catchment with climate change rainfall as per the pre project scenario is also considered acceptable.

The Applicant has compared the flood depth derived from the model outputs to the proposed road levels and existing ground levels in the terrain model to identify potential flood risks. The Applicant has assessed sections of the Project route and rated the respective flood risks from negligible to high based on the modelled flood depth and recommended stormwater mitigation strategies. In general, we agree with the flood risk rating and the proposed stormwater strategies for flood attenuation and network improvement. The requirements for flood attenuation have been assessed based on the location of the roads in their respective catchments. It is proposed that some of the roads within the Puhinui Stream catchment and the Otara Creek sub-catchment will be used for flood attenuation to mitigate the potential flood risks.

It is stated in the Assessment that there is sufficient space within the proposed designation boundary to fit the stormwater devices for both water quality treatment and flood mitigation purposes. Storage areas adjacent to the future road corridor, such as Hayman Park, have also been proposed for flood attenuation. In general, this is considered acceptable.

As stated in the Assessment, the Project will lead to a 5% to 15% increase of impervious area within the future corridor in the urban areas and a 15% to 20% increase along SH20B which is predominantly rural. As a result, the Project is expected to give rise to limited flooding effects in relation to catchment wide flooding problems.

While we agree with the Applicant that the Project will not cause widespread flooding, all developments have the potential to cause adverse flood hazard effects on adjacent properties. These effects must be assessed and managed carefully, especially in areas where properties are already at risk of flooding.

The Applicant has proposed an outcomes-based approach and a flood hazard condition<sup>2</sup> to manage and mitigate the actual and potential flood hazard effects of the Project. This includes performance standards to control any increase of flood levels and potential flood hazard on adjacent properties. The outcomes-based approach is considered appropriate for the NoRs. However, amendments to the proposed flood hazard condition are required to ensure that the flood effects associated with the NoRs will be appropriately mitigated and will be less than minor. The recommended amendments to the condition are discussed in Sections 4 and 5 below.

#### **4. Technical assessment of flood hazard effects**

The outcomes-based approach proposed by the Applicant to manage potential flood effects is considered to be appropriate for the NoRs. However, we have concerns over the assessment methodology used by the Applicant which had assumed that all culverts under 600mm dia are blocked in assessing the pre and post project flood scenarios. The applicant has stated that this assumption was based on the requirement of Auckland Council's Stormwater Code of Practice (SWCoP). It is not clear if their assessment had also assumed that pipes under 600mm dia are blocked.

Assuming culverts or pipes under 600mm dia to be blocked is a requirement in the SWCoP for designing overland flow paths. This is to make sure that a conservative approach is applied for the design of any secondary overland flow path to ensure that properties are protected in case of primary pipe network blockage in extreme storm events.

However, if the Applicant uses this method to assess the pre and post project flood scenarios it is likely that the potential flood impacts of the Project will not be accurately identified. This is because by assuming culverts or pipes are blocked in the pre project flood scenario could falsely assume that some properties are already subject to flooding. These properties would not have been identified as being affected by the Project in the post project flood scenario. This is of

<sup>2</sup> Condition 14 for NoRs 1, 2, 3 & 4a and Condition 12 for NoR 4b.

particular relevance to properties that would not be flooded when the pipe network is operational but could be at risk of flooding when the local network is blocked.

This method is also likely to result in parts of the stormwater pipe network that are under 600mm dia not being identified for required capacity upgrade as part of the Project. As these smaller pipes are proposed to be excluded from the model, their performance and capacity requirements will not be assessed as part of the pre and post project flood hazard modelling assessment.

We have reviewed the modelled flood levels and depths at key locations provided in the Applicant's Assessment and compared them with the Healthy Waters models. It is noted that the results are different between the two. While it is normal to have discrepancies between flood hazard modelling assessments, we are concerned that the differences in the modelling results were caused by the Applicant's assumption of culverts or pipes under 600mm dia being blocked. As mentioned above, the Applicant's Assessment was based on the existing catchment models provided by Healthy Waters.

On this basis, we consider that a more detailed flood modelling assessment should be undertaken at the detailed design stage to cover actual earthwork levels and existing and proposed stormwater infrastructure. The extent of the stormwater pipe network to be included in the flood modelling assessment shall be refined to enable a more accurate assessment of flood effects of the Project. For areas where properties are likely to be significantly affected by the Project, sufficient details including small size pipes will need to be included in the model, and any loss of storage due to earthworks will also need to be identified. Both pre and post project models are required to be submitted in an Outline Plan of Works (**OPW**) to Healthy Waters for review and comment. It is also recommended that the model extents and modelling methodologies shall be agreed with Healthy Waters prior to the detailed assessment being undertaken.

The Applicant's proposed flood hazard condition and modelling assessment only cover the effects from the 1% Annual Exceedance Probability (**AEP**) event. The 1% AEP is equivalent to a 1 in 100-year Average Recurrence Interval (**ARI**), meaning that it has a likelihood of occurring at least once every 100 years or a 1% chance of occurring in any given year. Considering that some properties along the proposed designation are at risk of flooding in storm events of 20% AEP and above, it is important to assess the more frequent events, in particular the 10% AEP flood levels. Including the 10% AEP rainfall event within the condition will also provide more certainty to the submitters that a comprehensive assessment will be undertaken.

Overall, it is considered that the proposed flood hazard condition, subject to the recommended amendments as outlined in Section 5 below, will ensure that the flood effects of the Project will be appropriately mitigated and will be less than minor.

## 5. Flood hazard condition

Based on the above, the following amendments are recommended to the proposed flood hazard condition, with added text underlined and deleted text in ~~strikethrough~~.

(a) The Project shall be designed to achieve the following flood risk outcomes:

- (i) no increase in 1% AEP flood levels for existing authorised habitable floors that are already subject to flooding or have a freeboard of less than 150mm;
- (ii) no more than a 10% reduction in freeboard in a 1% AEP event for existing authorised habitable floors with a freeboard of over 150mm;
- (iii) no increase in 1% AEP flood levels for existing authorised community, commercial and industrial building floors that are already subject to flooding;
- (iv) no more than a 10% reduction in freeboard in a 1% AEP event for existing authorised community, commercial and industrial building floors;
- (v) no increase of more than 50mm in the 1% AEP flood level on land zoned for urban or future urban development ~~where there is no existing dwelling~~;
- (vi) No increase in 10% AEP flood levels for existing authorised habitable floors that are at risk of flooding;

- (vii) no new flood prone areas;
- (viii) no increase in flood hazard (defined as flow depth times velocity) for the main access to existing authorised habitable dwellings that are already classified as a significant hazard. Significant flood hazard means flow depth  $\geq 0.3\text{m}$ , or flow depth  $\geq 0.1\text{m}$  and velocity  $\geq 2\text{ms}^{-1}$  as per Auckland Council Stormwater Flood Modelling Specifications (November 2011 version); and
- (ix) for areas with other flood hazard classifications, no more than a 10% average increase of flood hazard (defined as flow depth times velocity) for main access to authorised habitable dwellings existing at time the Outline Plan is submitted.

(b) Compliance with this condition shall be demonstrated in the Outline Plan, which shall include flood modelling of the pre-Project and post- Project **10% & 1% AEP 400-year-ARI** flood levels (for Maximum Probable Development land use and including climate change). The updated model shall be submitted to Auckland Council Healthy Waters for review and comment. The model extents and modelling methodologies shall be agreed with Auckland Council Healthy Waters prior to detailed assessment being undertaken.

(c) Where the above outcomes can be achieved through alternative measures outside of the designation such as flood stop banks, flood walls, raising existing authorised habitable floor level and new overland flow paths or varied through agreement with the relevant landowner, the Outline Plan shall include confirmation that any necessary landowner and statutory approvals have been obtained for that work or alternative outcome.

## 6. Statutory considerations

Appendix B of the Applicant's AEE set out the natural hazard (including flood hazard and climate change) objectives and policies of the National Policy Statement on Urban Development (**NPS:UD**) and Auckland Unitary Plan Operative in Part (**AUP:OP**) that are relevant to the project. It is considered that the relevant objective and policies have been appropriately identified.

The relevant flood hazard objective and policies of the AUP:OP<sup>3</sup> acknowledge the functional and operational need for infrastructure to locate in a natural hazard area, including flood plains, while requiring that the risks to people, property and the environment are avoided or mitigated to the extent practicable.

Although in some areas the corridor passes through existing flood plains, the proposed developments have an operational and functional need to locate at the proposed location. This is demonstrated in the Applicant's AEE and Assessment of Alternatives<sup>4</sup>. It is considered that the proposed flood hazard condition, subject to the recommended amendments as outlined above, will ensure that the flood effects of the project will be avoided or mitigated to the extent practicable.

Overall, the project is considered to be consistent with the relevant objectives and policies contained in Chapters B10 and E36 of the AUP:OP.

## 7. Response to flood matters raised in submissions

The submissions received on the NoRs which raised flood related issues are summarised in the table below.

<sup>3</sup> The relevant flood hazard objective and policies of the AUP:OP are B10.2.1(2-6), B10.2.2(8) & (12), E36.2(2) & (4-6) and E36.3(3-4), (17-30) & (35).

<sup>4</sup> Appendix A of the Applicant's AEE.

NoR	Sub. No. and Name of Submitter	Relevant flood issues raised by the Submitter(s)
NoR1	13 – Vanessa Phillips 30 – Paul Reyneke 31 – Matthew Cheeseman 32 – Maureen Irwin 33 – Laura Unasa 34 – Emerson Cheeseman	Increased flood risk.
All	NoR1-26, NoR2-53, NoR3-26, NoR4a-9, NoR4b-4 – Heather Haylock	<p>That AT and AC reconsider the use of the '100 year flood' calculation and the no more than 10% increased flood hazard risk, and whether this level of risk is acceptable to the community given recent rainfall events and the potential for increased severity and frequency of extreme weather events in the future.</p> <p>That AT consider, at the design stage of the project, ways in which it can further reduce the flood hazard in areas surrounding the BRT route e.g., stormwater soaked up in a 'ribbon park' created on unused acquired land.</p>
All	NoR1-41, NoR2-76, NoR3-35, NoR4a-15 – Kāinga Ora	<p>It is Kāinga Ora's opinion that the Project should be required to manage the flooding effects within its own boundary.</p> <p>Kāinga Ora requests that a flood hazard condition is added so that, simply put, the Requiring Authority does not worsen any flooding effects onto neighbouring properties and appropriately avoids, remediates and/or mitigates the effects of their construction activities.</p>
NoR2	13 – Duncan and Sandra Loudon	Flooding at Puhinui Domain, along Grayson Ave and the property at 43 Grayson Ave.
NoR2, NoR3 & NoR4a	NoR2-36, NoR3-22, NoR4a-6 – Minakshi Mohanlal NoR2-37, NoR3-21, NoR4a-5 – Avisha Mohanlal NoR2-68, NoR3-30, NoR4a-12 – Abhisekh Mohanlal NoR2-69 – Avisha Mohanlal	Increase of flooding.
NoR2	59 – Centuria Capital (NZ) Limited	<p>The Property at 1/55 Lambie Drive (Bunnings as tenant) is identified on Auckland Council's GIS as being subject to the 1% AEP flood plain and an overland flow path. It is unclear from the Assessment of Flooding Effects submitted with NoR2 as to whether the proposed works would result in an increase in flooding effects on the Property. Further assessment and clarification is required as to the actual and potential flooding effects, and if, following such assessment, the Council is minded to recommend confirmation of NoR 2, Centuria submits appropriate conditions must be identified as necessary.</p>
NoR2	71 – Andrea Mead & Dr Stephanie Mead	<p>Re 2/2 Ihaka Place</p> <p>The middle of Lambie Drive provides a large grassed island with a row of Norfolk Pine Trees. This will be</p>

NoR	Sub. No. and Name of Submitter	Relevant flood issues raised by the Submitter(s)
		<p>replaced by concrete as the whole area would be concreted over for Rapid Bus Transit lane and bus stop. The concreted area will also be significantly wider, due to the front of residential properties being taken for concreted cycle ways and walkways.</p> <p>This increase in concrete and changes to the level of the land will mean a significant increase in flood risk for our property. All the rainwater accumulated on the increased concrete will need to be drained (with the loss of soakage from the current grassed area). Any overflow of rainwater will put Our Property at a direct and significant flood risk. Currently Our Property has never flooded as the grassed areas provide sufficient soakage.</p> <p>Any raise in land height placing the road height above Our Property will also increase our flood risk with surface water flowing off the concrete and onto Our Property.</p>
NoR2 & NoR3	NoR2-73, NoR3-32 – Quadrant Properties Ltd	<p>As proposed, the NOR's would enable the Requiring Authority to increase in the level of flooding toward adjoining properties. The submitter considers that flooding effects should be managed within the NOR boundary, and not worsened as it relates to neighbouring properties.</p> <p>The submitter requests that a condition is included to require the Requiring Authority to ensure that the Project does not worsen any flooding effects onto neighbouring properties.</p>

A number of submitters have raised site specific flood related concerns. Our comments are provided as follows:

- The site at 43 Grayson Ave is subject to existing flooding risks due to its low-lying location. Without appropriate mitigation, works within the Puhinui Domain can potentially have significant flooding effects on the site.
- Part of the site at 1/55 Lambie Drive is subject to existing flooding risks, caused by flooding of the Puhinui Stream channel and overland flow paths. Works within the proposed future road corridor might result in flooding effects on the site.
- The site at 2/2 Ihaka Place is on a major overland flow path and is subject to existing flooding risks. Without appropriate mitigation, works within the proposed future road corridor can potentially have significant flooding effects on the site.

A number of other submitters have raised general flood related concerns. Overall, it is considered that the proposed flood hazard condition, subject to the recommended amendments as outlined in Section 5 above, will ensure that the flood effects of the Project will be mitigated to the extent practicable and will be less than minor.

## 8. Recommendations and conclusions

Overall, the outcomes-based approach proposed by the Applicant to manage and mitigate the actual and potential flood hazard effects of the Project is considered appropriate. It is considered that the flood effects of the Project will be appropriately mitigated and will be less than minor, subject to the recommended amendments to the proposed flood hazard condition. In particular, the inclusion of a flood hazard assessment for the 10% AEP rainfall event as well as the 1% AEP

rainfall event will enable a more detailed assessment and provide more certainty to the submitters.



# Appendix 1 – 6 Ecology Memo

Memo (technical specialist report to contribute towards Council's section 42A report)

08 May 2023

To: David Wong – Senior Policy Planner, Planning Central/South, Auckland Council

From: Alicia Wong – Ecologist, Natural Environment Specialist Services, Auckland Council

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**Subject: Notice of Requirement – Airport to Botany – Ecological Assessment**

## 1.0 Introduction

1.1 I have undertaken a review of the notice of requirement, on behalf of Auckland Council in relation to ecological effects.

1.2 I hold the qualifications of Bachelor of Science in Biology, Bachelor of Arts in Geography, a Post Graduate Diploma in Environmental Science, and a Master of Environmental Science from The University of Auckland. I have 7 years' experience working as an ecologist in private and public sectors.

1.3 In writing this memo, I have reviewed the application material in full. The following documents specifically address ecological matters:

Application material (as notified):

- '*Airport to Botany Assessment of Effects on the Environment*' by Te Tupu Ngātahi Supporting Growth, version.1, dated 09.12.2022.
- '*Airport to Botany Assessment of Ecological Effects*' by Te Tupu Ngātahi Supporting Growth, version.1, dated 09.12.2022. (hereafter referred to as ecological report)
- '*Airport to Botany - Assessment of Arboricultural Effects*' by Te Tupu Ngātahi Supporting Growth, version.1, dated 09.12.2022.
- Form 18: '*NOR 1*', by Auckland Transport, dated 09.12.2022.
- Form 18: '*NOR 2*', by Auckland Transport, dated 09.12.2022.
- Form 18: '*NOR 3*', by Auckland Transport, dated 09.12.2022.
- Form 18: '*NOR 4a*', by Auckland Transport, dated 09.12.2022.
- Form 18: '*NOR 4b*', by Waka Kotahi, dated 08.12.2022.
- Conditions as notified for NoR 1, NoR 2, NoR 3, NoR 4a, NoR 4b.

Clause 23 response:

- '*Response to Section 92 Further Information Request for the Airport to Botany Rapid Transit Project*', by Te Tupu Ngātahi Supporting Growth, dated 10.02.2023.

## 2.0 Key ecological Issues

This section provides an overview of the key terrestrial and freshwater ecological concerns that arise from the review of the application material. While there are impacts proposed on terrestrial and freshwater ecology, many of these matters are regional and therefore their inclusion in this application has been to help inform project design. Appendix B of the Ecology Report provides a summary of the distinction between District and Regional matters.

The EIANZ Ecological Impact Assessment Guidelines<sup>1</sup> have been used to inform the assessment of effects in the Ecology Report to provide nationally consistent direction on the approach to be

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<sup>1</sup> Roper-Lindsay, J., Fuller S.A., Hooson, S., Sanders, M.D., Ussher, G.T. 2018. Ecological impact

adopted when assessing ecological impacts. It provides a standardised approach to determining ecological values and magnitudes of effects, which combined provides an overall level of ecological effect.

## **Wetlands**

2.1 The Ecology Report only provided for two wetland losses, Waokauri B.1 and Waokauri E.1, whereas the drawings in the Ecology Report and plans suggest additional wetland loss are expected to be incurred within the following designation:

2.2 NoR 1

This new designation traversing from Botany Town Centre to Rongomai Park. Wetlands are identified as named in the Assessment of Ecological Effects. Plans refer to SGA-DRG-STH-007GE-1000.

(i) Taraire A W.2 – design drawings indicate earthworks / fill batter at the most upslope extent, which may alter hydrology.

(ii) Otara W.1 – design drawings indicate earthworks / fill batter at the most upslope extent, which may alter hydrology.

2.3 NoR 4a

This new designation traversing from SH20/20B Interchange to Orrs Road. Wetlands are identified as named in the Assessment of Ecological Effects. Plans refer to SGA-DRG-STH-007-GE-4000.

(i) Waokauri C W.2 – design drawings indicate earthworks / fill batter at the toe of the wetland extent, which may alter hydrology.

2.4 Section 10.5.5 of the Ecology Report does however note that additional to the direct loss in wetland area identified, and that additional wetlands can be impacted by indirect activities, and so details regarding the offset and/or compensation requirements will be addressed during the future regional resource consent application.

2.5 I agree with the general assessment and findings in relocation to wetland ecological matters, asides from matters raised above however will be dealt with in the regional consenting stage.

## **Aquatic Ecology (streams and wetlands)**

2.6 A high-level assessment of effects associated with streams; culverting, reclamation and diversions has been provided. The ecological report identifies mitigation will be required as a result of stream and wetland loss/impacts. 24 m of stream length available for restoration within the designation boundary have been identified. Similarly, 248 m<sup>2</sup> of wetland area available for restoration with the designation boundary have been identified. However, the amount of stream loss and wetland loss is expected to be greater than the area identified as available for mitigation and offsetting. Therefore, these restoration areas and stream length alone shall not be relied on. Instead, a full comprehensive offsetting model must be adopted during regional consent to calculate an ecologically robust and appropriate quantum for mitigation and offsetting that may be required for both stream and wetland impacts.

2.7 I agree with the assessment and findings in relation to freshwater ecological matters.

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assessment. EIANZ guidelines for use in New Zealand: terrestrial and freshwater ecosystems. 2nd edition.

## Terrestrial Ecology

2.8 Effects associated with terrestrial ecological matters; vegetation removal outside of roads and public species, riparian vegetation removal, and wetland buffer vegetation removal area are all regional plan considerations. Potential adverse effects within the proposed alignment have been identified, highlighting the need for these to be further addressed at the regional consenting stage.

2.9 I agree with the assessment and findings in relation to terrestrial ecological matters.

### 3.0 Assessment of ecological effects and management methods

3.1 Fauna values and effects associated with the loss of habitat (vegetation to be cleared) and construction activities have already been identified in their assessment of terrestrial ecology effects report (i.e. vehicle strike, light disturbance, injury or death from vegetation removal of nesting, roosting habitat etc) as District Plan matters (as highlighted in Appendix B). I agree with the assessment of values and actual/potential adverse effects resulting from the construction and operation.

3.2 The proposed, pre-construction ecological surveys under Condition 24 for NoR1,2,3,4a (and Condition 22 for NoR4b) in relation to reassessment of values and effects is inappropriate as the values and effects have already been identified. There is no need to revisit this assessment during the Outline Plan of Works pre-construction. I would however support the Pre-Construction Ecological Surveys being undertaken and used to prepare an Ecological Management Plan that is more focussed on areas of high probability of requiring management of bats, birds, lizards, and revegetation planting. I have therefore recommended changes to Condition 24 for NoR1,2,3,4a (and Condition 22 for NoR4b) to remove reassessment of values and effects (identified), rather the pre-construction surveys are to narrow down management based on results from actual and potential presence. A more simplified condition for an Ecological Management Plan, is all that is required and has been recommended for Condition 25 for NoR1,2,3,4a (and Condition 23 for NoR4b), see section 5.0.

3.3 If wetland loss is unavoidable, mitigation is unlikely to be possible, so offset or compensation measures will need to be considered.

3.4 The NPS:FM 2020 requires consideration of current and potential values of wetlands (section 3.21 and 3.22(3)(a)). While an ecological value of 'moderate' has been assigned to the wetlands directly impacted by the proposed designations, it is not clear if this ecological value is the current state of the wetlands or the potential value. In relation to wetlands, 'loss of value' includes the loss of potential value (NPS:FM 2020, Section 3.21).

3.5 The magnitude of effects associated with terrestrial habitat loss has been applied whereas effects associated with wetland habitat loss have not. If the loss of wetlands cannot be avoided by the future project works, the magnitude of effect would likely be 'Very High' (through direct reclamation), and the overall level of effect would be 'High' (given a moderate ecological value). This typically requires that further measures to offset or compensate are undertaken.

3.6 I agree that the quantum of mitigation, offset, or compensation required must be calculated once a full understanding of the quality and extent of wetlands, streams, and terrestrial vegetation is known, this shall be at the regional plan consenting phase. A best practice robust and transparent biodiversity accounting framework would need to be applied to determine the quantum of offset required for each ecotone (wetland, streams, and terrestrial vegetation).

3.7 Auckland Unitary Plan: Operative in Part Regional Policy Statement B7.2 (Indigenous Biodiversity) and 7.3 (Freshwater Systems) are applicable to this assessment.

- 3.8 The proposal is largely consistent with B7.2. In general, high ecological value areas have been avoided where practicable and any residual adverse effects will be offset or compensated.

## **4.0 Submissions**

- 4.1 Submissions on the proposed plan change were reviewed for each proposed designation. Only one submission in designation NoR 2 expressed concerns in ecology. Submission 71 (Andrea Mead and Dr Stephanie Mead). The submission is summarised in the table below.

Submission Number	Submitter's Name	Issues Raised	Relief Sought (From Submitter)	Technical Assessment
71	<b>Andrea Mead &amp; Dr Stephanie Mead</b>	A Mead and Dr S Mead opposes the removal of Norfolk pine street trees outside 1/1 Ihaka Place. A Mead and Dr S Mead considers that the trees provide ecological value. Additionally, they consider the grass area beneath the trees as providing rainwater soakage. It is considered that the removal of pines "will be a significant ecological loss".	Norfolk pines stay <i>in-situ</i> / no designation alteration and development to be undertaken.	No justification was provided to support that the Norfolk pine provide ecological value nor the removal will result in significant loss. From an ecological perspective, Norfolk pine street tree have low ecological value. Revegetation planting at a ratio of 2:1 is proposed and considered ecologically appropriate for replacing exotic street trees.

## 5.0 Conclusions and recommendations

### 5.1 Additions to Condition 11(h)(iii) of NORs 1 – 4a.

- (iii). Detailed specifications relating to the following:
- A. weed control and clearance;
  - B. pest animal management (to support plant establishment);
  - C. ground preparation (topsoiling and decompaction);
  - D. mulching; ~~and~~
  - E. plant sourcing and planting, including hydroseeding and grassing, and use of eco-sourced species for restoration purposes; and
  - F. restoration planting which remedies the loss of ecosystem services provided by vegetation identified for removal, including the replacement of planting which fails to establish.

### 5.2 I recommend Condition 24 Pre-Construction Ecological Survey of NORs 1 – 4a and Condition 22 Pre-Construction Ecological Survey of NoR 4b be changed to the following:

- (a) At the start of detailed design for a Stage of Work, an updated ecological survey shall be undertaken by a Suitably Qualified and Experienced Person. The purpose of the survey is to inform the detailed design of ecological management by:
- (i) confirming whether the ~~species of value~~ indigenous flora and fauna (including Regionally or Nationally At-Risk or Threatened species) within the Identified Biodiversity Areas recorded in Schedule 3 are still present; ~~and~~
  - (ii) ~~confirming whether the project will or may have a moderate or greater level of ecological effect on ecological species of value, prior to implementation of impact management measures, as determined in accordance with the EIANZ guidelines (or any subsequent updated version).~~
- (b) Mana Whenua shall be invited as partners to observe how the ecological survey in (a) will be undertaken.
- (c) If the ecological survey in (a) above confirms the presence of ~~ecological species of value~~ indigenous flora and fauna (including Regionally or Nationally At-Risk or Threatened species) in accordance with Condition 24(a)(i) and that effects are likely in accordance with Condition 24(a)(ii), then an Ecological Management Plan (or Plans) shall be prepared in accordance with Condition 25 for these areas (Confirmed Biodiversity Areas).

### 5.3 I recommend Condition 25 of NORs 1 – 4a and Condition 23 of NOR 4b be changed to the following:

#### Ecological Management Plan (EMP)

An Ecological Management Plan shall be prepared for any Confirmed Biodiversity Areas (confirmed through Condition 24) prior to the Start of Construction for a Stage of Work, prepared by a suitably qualified ecologist, to manage effects on bats, birds, lizards, and the removal of vegetation (e.g. vegetation removal in roads, public spaces, ONFs, ONLs, HNCs, and ONCs) within NOR1 – 4b, must be submitted for certification by the Council, prior to any works commencing within the designation (NOR 1 – 4b). The ecological management plan shall include, but not limited to the following:

- Bat Management
- Bird Management (all bird species)

- Lizard Management
- Revegetation Planting

The certified Ecological Management Plan (EMP) for any Confirmed Biodiversity Areas (confirmed through Condition 24) shall be implemented in all respects, unless the Council, in consultation with Council's ecologist, agrees in writing to any alteration.

The EMP shall be consistent with best practices methodologies and complicit with ecological management measures to be undertaken in compliance with conditions of any regional resource consents for the Project.



## Technical memorandum for Airport to Botany

### Notices of requirement for works A2B 1 to 4A Bus Rapid Transit, 4B Alteration to Designation 6717: Built Heritage

To: Trevor Mackie, Consultant Planner to Auckland Council  
David Wong, Senior Policy Planner, Auckland Council

From: Dan Windwood, Senior Built Heritage Specialist, Built Heritage Implementation, Heritage Unit, Auckland Council

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#### 1. Application details

**Applicant's name:** Auckland Transport (AT) (Applicant)  
**Application number:** NoRs A2B1-4B  
**Activity type:** Various  
**Site address:** Botany, Rongomai Park, Puhinui Station, SH20/B Interchange, Orrs Road. Designation 6717 covers SH20B from Puhinui Road intersection to Auckland International Airport

#### 2. Introduction

##### Qualifications and relevant experience

- 2.1. My name is Daniel Spencer Windwood, and I am a Senior Built Heritage Specialist at Auckland Council.
- 2.2. I am a Senior Built Heritage Specialist in the Built Heritage Implementation Team in the Heritage Unit at Auckland Council. I have held this post since August 2018. In this role I provide professional specialist advice on development affecting scheduled historic heritage places relating to built heritage and special character.
- 2.3. I hold a Bachelor of Arts (Honours) degree in Archaeology (International) from the University of Leicester in the United Kingdom, graduating in 2004. I specialised in landscape archaeology and studies of historic buildings, including historical industrial sites and landscapes, with a focus on the last two hundred years. As part of my degree, I spent a year studying historical archaeology and cultural heritage management at Flinders University of South Australia, Adelaide. In 2005 I graduated with a Master of Arts degree in Landscape Studies from the University of Leicester. My Master's degree focused on the analysis and management of historic landscapes.
- 2.4. I have over fourteen years professional experience as an urban planner and heritage specialist. This includes over seven years in New Zealand, including periods working as a heritage specialist for Wellington City Council and Dunedin City Council. I have also

worked for the Historic Sites team for the Yukon Territory Government of Canada as the Historic Sites Registrar.

- 2.5. My UK experience comprises over six years, predominantly working in local government as a heritage specialist within the urban planning process. This included stints as a building conservation officer and as a county archaeologist, advising on development directly and indirectly affecting the historic environment including buildings, townscapes, archaeological sites and larger cultural landscapes. I have also worked as a heritage consultant in the private sector, where among other projects I authored the heritage assessment for the successful 2014 scheme for Battersea Power Station, London.
- 2.6. I am fully accredited as a Member of the Institute of Historic Building Conservation ([www.ihbc.org.uk](http://www.ihbc.org.uk)). The IHBC is the professional body for building conservation practitioners and historic environment experts working in the United Kingdom, with connections to the Republic of Ireland. The Institute exists to establish, develop and maintain the highest standards of conservation practice, to support the effective protection and enhancement of the historic environment, and to promote heritage-led regeneration and access to the historic environment for all. Full Members have demonstrated their skills, knowledge and experience in built and historic environment conservation as a multidisciplinary and interdisciplinary practice, in line with the Institute's membership standards and criteria and the international models on which they are based.
- 2.7. I have visited the application site on numerous occasions, and I am generally familiar with the area.

### **Expert Witness Code of Conduct**

- 2.8. I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023 and have complied with it in preparing this evidence. Other than where I state that I am relying on the advice of another person, this evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express. I have qualified my evidence where I consider that any part of it may be incomplete or inaccurate, and identified any information or knowledge gaps, or uncertainties in any scientific information or mathematical models and analyses that I am aware of, and their potential implications. I have stated in my evidence where my opinion is not firm or concluded because of insufficient research or data or for any other reason and have provided an assessment of my level of confidence, and the likelihood of any outcomes specified, in my conclusion.

### **3. Overview and scope of technical memorandum**

- 3.1. The Applicant, in its capacity as a requiring authority, has given notice to the Council of its requirement for designations to develop, construct, operate and maintain the necessary structures and facilities for:
  - A2B NoR 1 Bus Rapid Transit – Botany to Rongomai Park (NoR 1);
  - A2B NoR 2 Bus Rapid Transit – Rongomai Park to Puhinui Station (in the vicinity of Plunket Avenue) (NoR 2);
  - A2B NoR 3 Bus Rapid Transit – Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange (NoR 3);
  - A2B NoR 4A Bus Rapid Transit – SH20/20B Interchange to Orrs Road (NoR 4a); and

- The widening of the interchange from SH20B to Manukau Memorial Gardens (NoR 4b), an alteration to the Waka Kotahi Designation 6717.
- 3.2. The NoRs were publicly notified on 10 March 2023, and submissions closed on 11 April 2023.
  - 3.3. I have reviewed the documentation provided for this application, specifically the assessment of built heritage effects prepared by John Brown at Plan.Heritage Ltd.
  - 3.4. The NoR where built heritage issues occur is NoR3, between Puhinui Station and the SH20/20B interchange.
  - 3.5. I generally agree with the methodology used by the applicant's built heritage specialist, but I note that a boundary strip approximately 2m deep at the front of the property and within the scheduled extent of place is mapped within the Notice of Requirements which has not been identified in the provided specialist report. Otherwise, I concur with the assessment provided of the heritage value of the memorial stone, and the management of any adverse effects to it.
  - 3.6. The loss of the former gardener's cottage and original nineteenth century dwelling on the site is deeply unfortunate. I agree that the condition of the building means that it cannot be relocated and restored elsewhere on the property and as a consequence preservation by record through detailed building recording will be necessary to partially mitigate its loss.
  - 3.7. The loss of mature planting on the original boundary of Cambria House (UID#01469), a Category A\* Scheduled Historic Heritage Place, although outside of its scheduled extent of place has been assessed as having a low permanent adverse effect on context and aesthetic values.



*Figure 1: Image taken in 1965 of Cambria House. Source: Auckland Libraries Kura Footprints Collection 02336.*

- 3.8. On its own, I would agree with the applicant's specialist assessment that this level of harm would be appropriate. However, taken into consideration with the loss of the wider historic landscape surrounding the house that has occurred over time as demonstrated in Figure 1 combined with the loss of the 2m wide boundary strip, I consider that the level of harm to the setting of the scheduled historic heritage place would have a moderate permanent adverse effect on context and aesthetic values. While I agree with the recommendation that replanting and new landscaping can at least partially mitigate this harm, heritage input should be sought when designing this element.
- 3.9. Finally, I also support that interpretation opportunities are undertaken throughout the Project and recommend that a suitable programme of works is achieved by condition.

#### **4. Statutory considerations**

##### **Auckland Unitary Plan (Operative in Part)**

- 4.1. I have examined the Project against the following relevant provisions of the AUP(OIP):
- a. Chapter D17 Historic Heritage Overlay and Schedule 14.1 Historic Heritage
  - b. Chapter E11 Regional Land Disturbance
  - c. B5 Regional Policy Statement for Historic Heritage, and
  - d. Chapter E26 Infrastructure.
- 4.2. Overall, I consider the Project to be consistent with historic heritage provisions of the AUP(OIP).

#### **5. Submissions Received**

##### **Heritage New Zealand Pouhere Taonga**

- 5.1. I have reviewed the submissions from Heritage New Zealand Pouhere Taonga (HNZPT). I disagree with their request for a more detailed historic heritage impact assessment before design work commences on built heritage grounds, as I consider that the proposed use of a Historic Heritage Management Plan agreed by way of a condition is appropriate for the level of change proposed by the NoR, where much of the built heritage within the scope of the Project has already been identified and there is a low likelihood of further buildings being considered significant.
- 5.2. While I agree with HNZPT's submission that the Gardener's Cottage may well be of some significance to the historic heritage values of the adjacent scheduled historic heritage place, I consider that the proposed later agreement of a HHMP by condition is an appropriate method for the management of the Gardener's Cottage and the landscaped treatment of the front boundary of Cambria House
- 5.3. I consider Heritage New Zealand Pouhere Taonga, the Papatoetoe Historical Society and the Cambria Park Homestead Steering Committee (or similar/subsequent committee) affected persons/parties in regard to 250/252 and 250A Puhinui Road.
- 5.4. I consider the Papatoetoe Historical Society an affected person/party in regard to the memorial stone.

**6. Conclusion**

- 6.1. I agree with the assessment of effects set out in paragraph 9.12 of the Applicant's Assessment of Environmental Effects and the Assessment of Built Heritage Effect in Volume 4.
- 6.2. I consider that the Project will result in limited risk from a built heritage perspective, and the conditions proposed are appropriate.

Yours sincerely,



Dan Windwood BA (Hons) MA IHBC

Senior Built Heritage Specialist



## Technical memorandum for Airport to Botany

### Notices of Requirement for works A2B 1 to 4A Bus Rapid Transit, 4B Alteration to Designation 6717: Archaeology

To: Trevor Mackie, Consultant Planner to Auckland Council

And to: David Wong, Senior Policy Planner, Auckland Council.

From: Myfanwy Eaves, Senior Specialist: Archaeology, Cultural Heritage Implementation, Heritage Unit, Auckland Council.

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#### 1. Application details

**Applicant's name:** Auckland Transport (AT) (Applicant) or is it Te Tupu Ngātahi Supporting Growth  
**Application number:** NoRs A2B1-4B  
**Activity type:** Various  
**Site address:** Botany, Rongomai Park, Puhinui Station, SH20/B Interchange, Orrs Road. Designation 6717 covers SH20B from Puhinui Road intersection to Auckland International Airport

#### 2. Introduction

##### Qualifications and relevant experience

- 2.1. My name is Myfanwy May Eaves, and I am a Senior Specialist Archaeology at Auckland Council (**Council**).
- 2.2. I have a Bachelor of Arts (BA) and Master of Arts (MA) (Hons) from Auckland University in Anthropology and Chinese. I also have a Master of Social Sciences (MSocSci) (IA) from the University of Birmingham, United Kingdom in Industrial Archaeology.
- 2.3. In my current role, which I have been in for nine (9) years, I am required to undertake technical reviews of resource consent applications and Notices of Requirement. I also provide advice and subject matter expertise assessments to Council officers on matters relating to archaeology and historic heritage.
- 2.4. Prior to my time at the Council, I studied and worked in archaeology in New Zealand and overseas in several locations: Australia, mainland China, England and Wales. In addition, I have worked as a museum collections manager in Auckland (Auckland Museum) and Australia (Sydney, PHM/MAAS), and therefore understand the care and documentary progression of objects (and sites) from discovery to storage and display extremely well.
- 2.5. I am a member of the New Zealand Archaeological Association (**NZAA**), the International Council on Monuments and Sites NZ/ Te Mana o Nga Pouwhenua o Te Ao (**ICOMOS NZ**) and the Australasia Society for Historic Archaeology (**ASHA**).

- 2.6. I attended the Project site visit on 11 October 2023, provided by Te Tupu Ngātahi Supporting Growth. In addition, I have visited the application site on numerous occasions, during the development of the Puhinui station and the relocation of the memorial stone (with plaque). I am generally familiar with the area.

### **Expert Witness Code of Conduct**

- 2.7. I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023 and have complied with it in preparing this evidence. Other than where I state that I am relying on the advice of another person, this evidence is within my area(s) of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express. I have qualified my evidence where I consider that any part of it may be incomplete or inaccurate, and identified any information or knowledge gaps, or uncertainties in any scientific information or mathematical models and analyses that I am aware of, and their potential implications. I have stated in my evidence where my opinion is not firm or concluded because of insufficient research or data or for any other reason and have provided an assessment of my level of confidence, and the likelihood of any outcomes specified, in my conclusion.

### **3. Overview and scope of technical memorandum**

- 3.1. The Applicant, in its capacity as a requiring authority, has given notice to the Council of its requirement for designations to develop, construct, operate and maintain the necessary structures and facilities for:
- A2B NoR 1 Bus Rapid Transit – Botany to Rongomai Park (NoR 1)
  - A2B NoR 2 Bus Rapid Transit – Rongomai Park to Puhinui Station (in the vicinity of Plunket Avenue) (NoR 2)
  - A2B NoR 3 Bus Rapid Transit – Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange (NoR 3)
  - A2B NoR 4A Bus Rapid Transit – SH20/20B Interchange to Orrs Road (NoR 4a) and The widening of the interchange from SH20B to Manukau Memorial Gardens (NoR 4b), an alteration to the Waka Kotahi Designation 6717.

**(the NoRs).**

- 3.2. The NoRs were publicly notified on 10 March 2023, and submissions closed on 11 April 2023.
- 3.3. I initially reviewed the draft NoRs in October and December 2022. I confirmed (to the council planner) at that time that there were recorded historic heritage sites within the Project area that are identified in Schedule 14 Historic Heritage Schedule to the Auckland Unitary Plan – Operative in Part (**AUP OP**).
- 3.4. I made a specific Section 92 request for further information any historic information on the notable trees proposed for felling as part of this application. These trees are within the NoR 3 application boundary and discussed further below.



- 3.5. I requested information because the RMA interpretation of Historic Heritage<sup>1</sup> includes matters *archaeological, architectural, cultural, historic, scientific and technological and archaeological sites (b(ii)) and surroundings associated with the natural and physical resources (b (iv))* amongst other matters.
- 3.6. Council files for the Cambria property show it was an extensive farm that used a natural feature for one boundary (Puhinui Stream) and Puhinui Road for another. I confirm I am not a SME on arboreal matters, but I do understand historic heritage and cultural landscapes involving ornamental gardens and plantings.
- 3.7. I have reviewed the documentation provided for this application, specifically Appendix J, the assessment of archaeological effects prepared by Cruickshank.<sup>2</sup>
- 3.8. In general, I concur with statements made by the applicant's archaeologist.<sup>3</sup>
- 3.9. I do not concur with all statements made regarding the historic heritage resource within the boundary of **NoR 3**. To provide brief summaries of the resource, the significance of some items has been downplayed / omitted and therefore a true appreciation of the significance of some elements has not been conveyed. Relevant information is therefore provided below, indicating that these three locations are historically connected and the proposed effects on them are collectively, more than minor.
- 3.10. The omission of detail ensures public perceptions of a project, and the project team's consideration of the local area and community assets, is low. The information provided below is to address this and enable consideration of specific conditions to mitigate the potential for negative effects on the landscape and heritage of this area.
- 3.11. Cambria Park – Military Camp, CHI17015<sup>4</sup>

Cruikshank's summary provides useful information<sup>5</sup> particularly when combined with that of a local historian, Jenny Clark.<sup>6</sup> Clark's essay details how in 1943 a 128-acre block in the middle of the Cambria estate (Cruikshank's Figure 3) was taken under the Public Works Act to establish a military camp. It housed up to 6000 troops then closed in 1944. Eventually the Government sold the land and in 1962 the Nestlé company opened a large factory, and the company is still located on the site. In the early 1990s the Manukau City Council and the US Embassy placed eight memorial plaques on rocks around the city, to commemorate 50 years since the US troops had been stationed at various sites.

The irregular shape of the land (Cruikshank Figure 3) reflects what is visible in early aerials; the compulsory purchase accessed both the main road (Puhinui) and Puhinui Station, on one side. The 1944 oblique aerial (Cruikshank Figure 2, lower right corner)

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<sup>1</sup> RMA Part 1 s2 interpretation, lists Historic heritage. Under the Heritage NZ Pouhere Taonga Act 2014, archaeological sites are places of human activity and date to before 1900, unless gazetted. Therefore, adherence to only archaeological matters would limit any understanding of the values and significance of this landscape.

<sup>2</sup> Volume 4 Appendix J: *Airport to Botany Assessment of Archaeological Effects*, Arden Cruickshank, December 2022.

<sup>3</sup> Cruickshank pp15-16.

<sup>4</sup> The incorrect location of the CHI point is a data correction to be made by the Heritage Unit when the new database becomes operational, late 2023 resource permitting. The closure of the CHI in 2020 effectively froze all information before the database itself collapsed and all information lost.

<sup>5</sup> Appendix J Cruickshank 2022 pp 17-18 and Figures 2 and 3 and section 4.2.3.1.

<sup>6</sup> Details from Local History Essay (LHE-009) *Cambria Park* by Jenny Clark of the Papatoetoe Historical Society for Auckland Council Libraries, 2009 and revised 2018. Accessed on 20 April 2023 at <https://kura.aucklandlibraries.govt.nz/digital/collection/localhistory/id/4330/rec/1>

shows a road from the station down to the camp, with two ninety degree turns. In 1992 the commemorative plaque (CHI15944) was unveiled by the then US Ambassador and Manukau City Council mayor.<sup>7</sup> Wisely, the plaque is mounted on a large rock and this rock (with plaque) were relocated slightly west to facilitate the development of Puhinui bus and train station complex in 2021.<sup>8</sup>

The Council Heritage Unit was involved in the relocation of this rock and plaque. After public response for the centenary of WWI we considered that as the centenary of WWII is approaching, this public marker will assist any party in relocating the soldiers' entrance to the camp.

The rock and plaque have a non-statutory identifier, a Cultural Heritage Inventory number (CHI) of 15944. CHI numbers reflect a database created and operated by the former Auckland Regional Council, designed to provide the public with an easily accessible public information data set on the heritage of greater Auckland. This database has been closed pending the launching of the new database when funding allows it.

### 3.12. Cambria House (UID#01499)<sup>9</sup> with trees (UID#1514)



*Figure 1: 1965 image of Cambria house. Puhinui Road is to the lower right, on the north side of the house. The near side Phoenix palms were removed by developments in the 1990s and NoR3 proposes the removal of the last of the vegetation visible on the western side of the Cambria driveway. Source: Auckland Libraries Kura Footprints Collection 02336.*

Cruikshank has not provided information on this pre-1900 property. A separate subject matter report<sup>10</sup> examines this place and considers the removal of mature trees to have a “low permanent adverse effect on context and aesthetic values”.<sup>11</sup> I leave these built

<sup>7</sup> <https://www.aucklandcouncil.govt.nz/arts-culture-heritage/heritage/heritagesurveys/papatoetoe-heritage-survey.pdf> see page 156

<sup>8</sup> <https://www.cityraillink.co.nz/newsletter-july-2021/puhinui-station-opens>

<sup>9</sup> LHE-009, *Cambria Park* by J Clark, Papatoetoe Historical Society for Auckland Council Libraries, 2009 & 2018. Accessed on 20 April 2023 at <https://kura.aucklandlibraries.govt.nz/digital/collection/localhistory/id/4330/rec/1>

<sup>10</sup> *Airport to Botany Assessment of Built Heritage Effects*, for Waka Kotahi by John Brown, December 2022. This appendix is included with the application documents and is part of an assessment for a different SME.

<sup>11</sup> Brown, *ibid*, page 26.

heritage matters for my built heritage and arborist colleagues to address; I will concentrate on the archaeological (historic heritage) landscape.

The original survey outline for Puhinui (Papahinaiu)<sup>12</sup> Road would have been the standard width - a surveyor's chain (22 yards, or 20m). The road remained unformed (a dirt track) and of that width until after WWII. As Puhinui Road became more formalised, and sealed, more of the plantings on the north boundary of the property were removed (see Figure 1).

European land ownership of the farm is detailed by Cruikshank (ibid). In 1884 Norman McDonald purchased 176 acres bounded by Puhinui Stream, the then unformed Puhinui and Roscommon Roads, and the railway line. The homestead was built (Puhi-Nui), the orchard planted and probably some of the exotic vegetation as well.

In 1892 E Arthur Price purchased and re-named the property after his Welsh homeland. Price was an Auckland businessman living in town, so employed a manager to run stock, plant crops and manage his horse stud. The manager lived in the cottage at 252 Puhinui Road, more recently fire damaged.

In 1912 the Price family moved to live permanently at Cambria. Over the next few years, the property and house were enlarged and in 1925 electricity was connected, coincidentally when the Clendon Park estate on the east side of the rail line was subdivided and a rail stop opened (initially called Cambria). Price donated land for the station, then more land bordering the rail line was taken for railway purposes in 1927 and 1930. He also worked with his neighbours on Papatoetoe community projects, such as the small recreation reserve in Papatoetoe itself, for which he donated the trees.<sup>13</sup>

During WWII, land was taken by the government for the military camp<sup>14</sup> and Price transferred two large lots to each of his sons. From 1955-1962, more land was taken for railway and motorway purposes. The property was eventually sold to Manukau City Council in 1997.

### 3.13. Flowering gum *Corymbia ficifolia*, AUP UID#1526.

The third and final feature affected by the NOR 3 proposal is this tree, now on the corner of Puhinui Road and Vision Place, just on the eastern side of SH20. It has recently survived all climatic events without issue, suggesting it is a more robust specimen than some might propose.

Cruikshank consulted aerial imagery to establish a date of planting for this tree at this location but could not confirm any details. The aerial image from 1939 is reproduced below (Figure 2) and I agree with Cruikshank, it shows the tree planted in the garden at the entrance to the property at approximately 305 Puhinui Road. Subdivision plans from 1917 (DP13843) indicate this residence was part of a subdivision for James Wyllie, the landowner and benefactor of the Orphans' Home in Wyllie Road.<sup>15</sup>

<sup>12</sup> Deposited Plan 13843 of 1917 was the A Harrison Bridge survey for part of James Wyllie's estate, Allotment 44. It shows the newly created Wyllie Road and its intersection with Papahinaiu (Puhinui) Road.

<sup>13</sup> <https://www.aucklandcouncil.govt.nz/arts-culture-heritage/heritage/heritagesurveys/papatoetoe-heritage-survey.pdf>

<sup>14</sup> See Cruikshank 2022:18, Figure 2 of 1944.

<sup>15</sup> AUP OIP Schedule 14.1, ID1466.

In summary, this tree *may* have been planted by the first residential owner at 305 Puhinui Road (about 1917), or it might have been planted earlier by E Arthur Price of Cambria, to mark the boundary between the Wyllie and Price farms.



Figure 2: Detail of SN139-11 of 1939 with the flowering gum indicated. Source: Retrolens.

Subsequent research may confirm matters either way but at this time the historic heritage value (and significance) of this tree is yet to be finalised. It is appropriate therefore to rely on the evidence of the Council's arborist for a professional and informed opinion.

- 3.14. As with Cambria estate, the widening of Puhinui Road has affected the front portion over the years, and in this specific instance places the eucalypt in between the cycle and pathways.
- 3.15. It is noted that a concurrent Supporting Growth NoR process for 191, SH16 Whenuapai. This proposal has avoided the Notable Trees along the route by changing the proposed alignment to enable the retention of mature arboreal specimens. There are at least two trees proposed for removal in NoR3 which are also Notable. We suggest the proposed alignment makes provision for the retention of the Notable Trees<sup>16</sup>(2) affected by this proposal.
- 3.16. Other than where stated above and for which additional information has been provided, from a historic heritage and archaeological perspective, I am satisfied that all matters have been addressed in the assessment by Cruickshank.<sup>17</sup>

<sup>16</sup> *Magnolia grandifolia* and *Camelia* sp. #1514, both at 250 Puhinui Road, and *Corymbia ficifolia* #1526 at the west corner of Vision Place and Puhinui Road.

<sup>17</sup> Ibid.

#### 4. Statutory considerations

##### Auckland Unitary Plan (Operative in Part)

- 4.1. I have examined the Project against the following relevant provisions of the AUP-OP:
- a. Chapter D17 Historic Heritage Overlay and Schedule 14.1 Historic Heritage
  - b. Chapter E11 Regional Land Disturbance
  - c. Schedule 10 Notable Trees
  - d. B5 Regional Policy Statement for Historic Heritage, and
  - e. Chapter E26 Infrastructure.
- 4.2. Overall, I consider the Project to be consistent with historic heritage provisions of the AUP OP.

##### Other statutory documents

- 4.3. I am familiar with the HNZPT Act 2014, including the sections relating to the process for obtaining archaeological authorities and, as the Applicant has agreed to obtain an Authority from HNZPT, I am satisfied that the proposal is consistent with this Act. For completeness, however, I note the requirement in the Act requiring a stand down period following the granting of an authority and *before commencing* any work on site.

#### 5. Relevant Submissions

- 5.1. In total, 190 submissions were received for the five (5) NoR. The following table<sup>18</sup> shows the spread of the submissions:

NoR	No. of submissions
NoR 1: Botany Town Centre to Rongomai Park (Auckland Transport)	44
NoR 2: Rongomai Park to Puhinui Station in the vicinity of Plunket Avenue (Auckland Transport)	81
NoR 3: Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange (Auckland Transport)	37
NoR 4a: SH20/20B Interchange to Orrs Road (Auckland Transport)	18
NoR 4b: Alteration to Designation 6717 (Waka Kotahi NZ Transport Agency).	10
<b>Total</b>	<b>190</b>

- 5.2. With reference to my subject matter area, I note only one submission relating to historic heritage or archaeology. It appears in all five NoR is from Heritage NZ Pouhere Taonga (HNZPT). They are, respectively, NoR 1 submission #37; NoR 2 #66; NoR 3 #31; NoR 4a #11 and NoR 4b #5.
- 5.3. All five submissions from HNZPT are identical except for NoR 3 submission #31. This specific submission differs slightly at the beginning then returns to the repeated text.

<sup>18</sup> Pers comm Council Planner to myself, emailed 19 April 2023.

- 5.4. All the HNZPT submissions express concern that the effects of any Designation or future construction will not be addressed until an Outline Plan of Works (OPW) is prepared. It is then claimed that a HHMP (Historic Heritage Management Plan) wouldn't be sufficient and/or is duplication of the requirements of their Act. Direction is then provided on what should be in the HHMP; rather than conflating matters (as stated by the submitter), it appears there is confusion created by this mixing of various statutory documents, their purpose, which Act they respond to and by whom they would be provided for which specific stage of works.
- 5.5. I draw the submitter's attention to proposed Condition 8(c) that states *Outline Plans may be submitted in parts or states to address particular activities ... or a Stage of Work of the project*. This may provide some reassurance.
- 5.6. Cruikshank's assessment<sup>19</sup> recommends an Archaeological Authority be obtained through the usual process. Any application to the HNZPT requires a separate set of documents which would address the submitters concerns; moreover, they would not be tied to the timeline of the NoR process (through the RMA) as the HNZPT application process falls under that particular Act.
- 5.7. The submitter wants all RMA and HNZPTA documents to be combined into a single document that will (it is claimed) facilitate mitigation of effects through a *more fulsome historic heritage impact assessment* for both built and archaeological matters. Since the AUP OP was adopted, this claim has been made routinely by HNZPT. Yet the provisions and definitions contained in their own Act would render such a document *ultra vires* when dealing with historic heritage matters raised through the RMA process. Simply put, the processes appear parallel, but the outcomes are quite different.
- 5.8. In NoR 3, (submission #31) additional detail is provided regarding the HNZPT List property #7351, Cambria Park homestead. For statutory matters regarding this List, the HNZPT Act is the appropriate management mechanism, including any concerns over GIS mapping errors. Usefully, this submission provides a date for the first land taken for road widening in about 1969. I concur with statements made regarding the effects of NoR 3 on the garden setting of Cambria, and the threat to Notable trees along this road.

## 6. Affected Parties identified.

- 6.1. I consider Heritage New Zealand Pouhere Taonga, the Papatoetoe Historical Society and the Cambria Park Homestead Steering Committee (or similar/subsequent committee) affected parties in regard to 250/252 and 250A Puhinui Road.
- 6.2. I consider the Papatoetoe Historical Society an affected person(s)/party in regard to the WWII memorial stone and matters regarding Cambria House. They may also be able to provide comment on the Notable Tree at 305 Puhinui Road.
- 6.3. I consider the Returned Services Association may have potential to be an affected party in regard to the WWII memorial stone CHI15944.

## 7. Suggested Conditions

- 7.1. The additional conditions provided by Cruikshank provide useful input for an infrastructure project of this scale.

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<sup>19</sup> 2022: 28 (Section 7, Conclusions).

- 7.2. The suggested Condition 23<sup>20</sup> applies only to NoRs 1,2,3 and 4a. It is noted that NoR 4b is a Waka Kotahi designation, therefore it would be wholly appropriate to utilise the *P45 Heritage specification for infrastructure development, delivery and maintenance* currently in draft and released 11 April 2023 for consultation. It states (pp10-11):

The supplier shall include specific procedures to manage heritage as part of the overall environmental management plan (EMP) to be developed for project construction or network maintenance activities, as set out by the Guideline for preparing an environmental management plan and Heritage guidelines. A key purpose of an EMP is to set up procedures and processes to minimise adverse negative effects on the environment. Where there is high risk and/or complex heritage places/areas a heritage management plan is required.

#### **Preparation of a heritage management plan**

The supplier shall prepare a heritage management plan to include:

- a full list of all known and potential heritage places/sensitive sites, with addresses, that will be affected by the project/maintenance activities (directly or indirectly)
- information on statutory requirements under the RMA, Building Act, Protected Objects' Act (POA) and HNZPTA including stand-down periods under an archaeological authority
- contact details for relevant stakeholders, including HNZPT, iwi/imi/hapū, councils and DoC
- contact details, roles and responsibilities of suitably qualified heritage professionals/workers, including cultural monitors
- training requirements
- operating procedures and mitigation measures
- provision for heritage site protection during construction (such as fencing off areas/built structures and minimising vibration)
- onsite and on-call monitoring requirements
- provision for secure storage and curation of objects and artefacts/taonga tūturu
- discovery management protocols
- analysis, including of archaeological and built heritage sites
- data management, including spatial maps and heritage inventory updates
- reporting, including recommendations for conservation/adaptive reuse/long-term management of heritage places and heritage artefacts/materials following project completion
- methods to investigate and record heritage places that are relocated or demolished because of project works
- project/maintenance and operations handover and close-out requirements, including heritage reporting as described in the Heritage guidelines.

All HMPs are to be reviewed and updated as new information or designs for works are developed. Any reviews should be consistent with the Waka Kotahi Heritage Policy, and all other statutory requirements.

- 7.3. Electronic copies of all historic heritage reports relating to historic heritage investigations (evaluation, excavation and monitoring etc.), including interim reports, shall be submitted to the Manager: Monitoring (in consultation with Manager: Heritage Unit) according to the reporting schedule in the certified HHMP.
- 7.16. Controlled archaeological investigation (of buildings, structures or earthworks) is replacement by record - the archaeological place is not preserved through this process but replaced by creating a sub-set of the archaeological place. As this proposal will require the destruction of sites and places, we suggest a condition to ensure the results of any archaeological findings be shared with relevant communities adjacent to the five NoR areas, some of whom have expressed concerns through the submission process.

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<sup>20</sup> Form 10, application documents.

This can be through public interpretation of work sites as well as the dissemination of information relating to a place.

**8. Conclusion**

- 8.1. The Project will require extensive earthworks to be undertaken in a staged manner. Some of these areas have been previously excavated, some are pristine. This presents risk of damage or destruction to subsurface, unknown, historic heritage and archaeological objects and sites. This risk can be addressed through the application for an appropriate permit, namely an Archaeological Authority.
- 8.2. The development and incorporation of public interpretation tools across and within this project will help mitigate for the destruction of sites and places.
- 8.3. I agree with the assessment of effects set out in paragraph 9.12.3 of the Applicant's Assessment of Environmental Effects and the Assessment of Archaeological Effects in Volume 4.

**Signed:**



**Dated:**

**23 May 2023**

**Conclusion**



## Appendix 1 – 7C Heritage Arborist Memo

21/4/2023

# Memo

To: David Wong – Senior Policy Planner, Planning Central Central/South, Auckland Council

From: West Fynn – Senior Heritage Arborist, Heritage Department, Auckland Council

Reference: NOR Airport to Botany with proposed removal of two notable trees

### 1.0 Qualifications and Experience

Bsc Forest Management  
HND Forest Management  
4 years Waitakere City Council – Resource Consents Arborist  
11 years Auckland Council – Senior Heritage Arborist  
Over 9 years working in the forestry and arboriculture industries including as a climbing arborist

### 2.0 Proposal Summary:

As requested, this memo provides notable tree advice, in relation to the proposed removal of 1 scheduled Magnolia tree and one notable Red Flowering Gum tree as below.

1514	<i>Camellia sp., Magnolia sp., Cordyline australis, Ailanthus altissima, Prumnopitys ferruginea, Podocarpus totara, Quercus robur, Ulmus sp., Phoenix canariensis</i>	Camelia, Magnolia, Cabbage Tree, Tree of Heaven, Miro, Totara, English Oak, English Elm, Phoenix Palm		Puhinui Road 250	Papatoetoe	Lot 1 DP 184348
1526	<i>Corymbia ficifolia</i>	Flowering Gum	1	Puhinui Road (road reserve on corner with Vision Pl.)	Papatoetoe	

These removals are proposed for road widening and multi-use lanes such as cycling and bus. It is stated that the trees are also of poor form and structure in the case of the Magnolia and that the Red Flowering Gum has structural concerns and ongoing maintenance pruning is required as well as that these trees conflict with road corridor footprints.

### 3.0 Statutory Matters:

Under the Auckland Unitary Plan, the removal of a notable tree is a Restricted Discretionary Activity.

#### D13.2. Objective

- (1) Notable trees and notable groups of trees are retained and protected from inappropriate subdivision, use and development.

#### D13.3. Policies

- (1) Provide education and advice to encourage the protection of notable trees and notable groups of trees in rural and urban areas.
- (2) Require notable trees and notable groups of trees to be retained and protected from inappropriate subdivision, use and development, by considering:
  - (a) the specific attributes of the tree or trees including the values for which the tree or trees have been identified as notable;
  - (b) the likelihood of significant adverse effects to people and property from the tree or trees;
  - (c) the degree to which the subdivision, use or development can accommodate the protection of the tree or groups of trees;

- (d) the extent to which any trimming, alteration or removal of a tree is necessary to accommodate efficient operation of the road network, network utilities or permitted development on the site;
- (e) alternative methods that could result in retaining the tree or trees on the site, road or reserve;
- (f) whether minor infringements of the standards that apply to the underlying zone would encourage the retention and enhancement of the tree or trees on the site;
- (g) whether the values that would be lost if the tree or trees are removed can be adequately mitigated;
- (h) whether the proposal is consistent with best arboricultural practice;
- (i) methods to contain and control plant pathogens and diseases including measures for preventing the spread of soil and the safe disposal of plant material;
- (j) and the provision of a tree management or landscape plan.

## **2.0 Arboricultural Comments:**

At this stage there is insufficient information in terms of the actual distance of encroachment of proposed works to the notable trees and the exacting nature of those works in terms of the potential affects on those trees and how they can be managed.

I also contest that the form and structure of the notable Magnolia tree, with recognised heritage value, is such that it would justify the imminent removal of this tree.

Similarly, it is stated that the removal of the Red Flowering Gum tree is justified because there are structural concerns with this tree and it would require on going maintenance pruning. I do not share the structural concerns for this tree and it has withstood all previous and recent storms without significant failure combined with the fact that it is, in my professional opinion, possibly the best example of the species nationally and certainly locally as well as being a very prominent and significant tree in terms of visibility and dominance within the local area as one of the biggest trees there and highly visible to many people including from the motorway. What pruning would need to be undertaken to address the stated structural concerns and why is that not an option? A tree of that significance warrants consideration and retention.

There are also not alternative designs and measures put forward to allow for the better on-going retention of these trees and why such alternatives have been discounted as not viable. Similarly, tree relocation has not been considered.

Stating that issues will be addressed under a tree management plan is too vague and does not allow for a full and considered assessment.

Further comment on these issues could be developed subject to feedback through submissions.

## **3.0 Conclusion**

From my perspective as Senior Heritage Arborist, and in my professional opinion, the removal of the subject notable trees would be a poor outcome when other alternatives have not been thoroughly considered.

As such, I am not supportive of the current proposed where the notable trees would not be retained and worked around.

Please do not hesitate to contact me with any queries relating to this memo or for further discussion.

Regards,

West Fynn  
Heritage Arborist  
Auckland Council  
021 824 708

## Appendix 1 – 8 Arboriculture Memo

### Technical Arboriculture memorandum for notices of requirement for Airport to Botany Bus Rapid Transit Project.

To: Trevor Mackie, consultant planner  
David Wong, Senior Policy Planner

From: Gavin Donaldson, Senior Arborist, Earth, Streams, and Trees Specialist Unit.

Date: 26<sup>th</sup> April 2023

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#### 1. Application details

Applicant's name: Auckland Transport and Waka Kotahi NZ Transport Agency

Application number: NoR 1-3 and NoRs 4a & 4b

Activity type: Removal of protected Trees and Vegetation

#### 2. Introduction

- 2.1. Auckland Transport (AT) and Waka Kotahi are seeking four new designations and to alter an existing designation for the construction of dedicated Airport to Botany Rapid Transit bus lanes.
- 2.2. The project will require the removal of 1,146 individual trees and 28,955.2 sqm of mass planted areas and groups of vegetation, including all the mature Washingtonia Palm trees in the center of Te Irirangi Drive and numerous Pōhutukawas in the existing slip lanes, mature London Plane trees and Pōhutukawa trees on both the northern and southern sides of Puhinui Road, plus mature trees in the central landscape strip from Lomwood to Lambie Drive in Manukau center.

The NoR's are outlined below:

- a. NoR 1: Bus Rapid Transit – Botany Town Centre to Rongomai Park (AT)
- b. NoR 2: Bus Rapid Transit – Rongomai Park to Puhinui Station in the vicinity of Plunket Avenue (AT)
- c. NoR 3: Bus Rapid Transit – Puhinui Station (in the vicinity of Plunket Avenue) to SH20/20B Interchange (AT)
- d. NoR 4a: Bus Rapid Transit – SH20/20B Interchange to Orrs Road (AT)
- e. NoR 4b: Alteration to Designation 6717 (Waka Kotahi NZ Transport Agency)

## **Qualifications and relevant experience**

- 2.3. My name is Gavin Rex Donaldson, and I am a Senior Arborist in the Earth, Streams, and Trees Specialist Unit at Auckland Council.
- 2.4. My qualifications include a Certificate in Horticulture (1975), Certificate in advance tree biology (1989), Diploma in Arboriculture (2001) and a Graduate Diploma majoring in Environmental Science and Natural Resource Management (2013). I also hold an International Society of Arboriculture Certification Board (ISA) Tree Risk Assessment Qualification (TRAQ) 2019-2024.
- 2.5. My current role at Auckland Council is to provide reports and recommendations to Council Planners for land use applications that involve protected trees, peer review and determine resource consent applications that solely concern protected trees, provide specialist advice on major infrastructure projects, outline plans of works, and notice of requirements, and to prepare reports and technical memoranda as an arboricultural expert at notified Council hearings, Council committees, and in the Environment Court.
- 2.6. I am a member of the New Zealand Tree Crop Association, Tane's Tree Trust, the International Society of Arboriculture, the New Zealand Arboricultural Association, and sit on the New Zealand Arboricultural Association's Registered Consultants Committee.
- 2.7. I have been practicing arboriculture since 1981 and was principal of my own arboricultural consultant and contracting firm from 1986-2003. I was awarded Approved Contractor status by the New Zealand Arboricultural Association (1992), and the Ron Flook Award for excellence and services to Arboriculture (New Zealand Arboricultural Association 2012).

## **Expert Witness Code of Conduct**

- 2.8. I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023 and have complied with it in preparing this evidence. Other than where I state that I am relying on the advice of another person, this evidence is within my area(s) of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express. I have qualified my evidence where I consider that any part of it may be incomplete or inaccurate, and identified any information or knowledge gaps, or uncertainties in any scientific information or mathematical models and analyses that I am aware of, and their potential implications. I have stated in my evidence where my opinion is not firm or concluded because of insufficient research or data or for any other reason and have provided an assessment of my level of confidence, and the likelihood of any outcomes specified, in my conclusion.

## **3. Overview and scope of technical memorandum**

- 3.1. I have participated in a site visit (bus trip of the route) in October 2022, and I have reviewed the Applicant's NoRs and the relevant supporting information with reference to the requirements of the relevant Unitary Plan provisions (Operative in Part) (**AUP-OP**). More specifically, my technical memorandum assesses the effects on protected trees and vegetation associated with the NoRs in accordance with the Chapters D13, E15, E16, E17, and E26 provisions of the AUP-OP.
- 3.2. In preparing this technical memorandum, I have reviewed the following documents relevant to the NoRs:

- Assessment of Environmental Effects compiled by Te Tupu Ngātahi Supporting Growth, dated October 2022
- Assessment of Arboricultural Effects version 1 compiled by Matthew Paul and Peter Weir for Te Tupu Ngātahi Supporting Growth, dated 9<sup>th</sup> December 2022.
- Response to request for further information compiled by Te Tupu Ngātahi Supporting Growth, dated 10<sup>th</sup> February 2023.
- Technical memo for removal of Notable trees compiled by Senior Heritage Arborist, Heritage Department, Auckland Council, dated 21<sup>st</sup> April 2023.

3.3. I have been involved with several previous and current NoR applications from the Supporting Growth team. These appear to be in a standard format regarding the effects upon protected trees and vegetation and this memo is applicable to all the NoR requests that are proposed for the construction of dedicated Airport to Botany Rapid Transit bus lanes.

#### 4. Technical assessment of effects

4.1 I support the assessment, conclusions and recommendations provided by the Council's Senior Heritage Arborist regarding the removal of Scheduled Notable trees. Given the extent of mature trees and vegetation within public space proposed for removal, this is likely to have a substantial visual impact upon local amenity, and a significant loss of the numerous attributes and eco-system services that the trees currently provide.

4.2 While the Applicant has offered to provide 'mitigation' for the proposed tree removals, by definition, mitigation acknowledges that there is a lasting negative effect, and it is preferred that an approach which remedies the impact of tree removals is adopted, where the remedial planting accounts for lost future environmental benefits that trees provide, including the eco-system services of soil / erosion protection, storm-water reduction, wildlife habitat, and sequestered carbon.

4.3 There are multiple references within the objectives, policies, and assessment criteria listed in the relevant AUP chapters to the essential eco-system services provided by trees (Appendix A attached to this memorandum). I consider that there is a requirement to avoid or remedy, rather than mitigate this loss as set out in the RMA and AUP, including Section 17(1) of the RMA. Furthermore, in consideration of the ecosystem services provided by the trees proposed to be removed for these designations, their loss will also require appropriate remedial planting to achieve the stated objective of central government to be 'carbon neutral' by 2050 and also to align with the sustainability goals of the Auckland Council's 'Low Carbon Strategic Action Plan'.

#### 5. Section 92 request

5.1 While I defer any ecological assessment of the proposed vegetation removals to the Council's ecologists, the value of ecosystem services provided by trees can be determined using the i-Tree Development Team 2020 forecasting tool developed by the International Society of Arboriculture, which calculates the lost future benefits arising from the proposed tree removals, and the remedial planting that will be needed to replace these lost benefits, maintain carbon neutrality, and ensure that the actual effects of tree removal are addressed in a sustainable fashion.

5.2 The Applicant was requested to *"please provide an assessment of the tree carbon sequestration that will need to be provided in mitigation of the proposed tree removals, within a more detailed calculation of the ecosystem services that will need to be replaced."*

- 5.3 The Applicant has responded that *“given the timeframes for construction (approx. 15 years) and the current route protection stage of the project, it is not considered appropriate to apply a tree carbon sequestration calculation at this stage. The Project Team arborist notes that this an evolving area of tree mitigation and any calculations and methodology would likely be superseded by the time construction works for the Project have commenced. As such a Tree Management Plan is proposed to address replacement planting for the Project.”*
- 5.4 I do not accept this response. As this is an NoR application, the designation may not be given effect to until some-time (potentially decades) in the future and the trees will remain on site in the interim. Accordingly, the stature and ecosystem services provided by these trees will also substantially increase over time and the subsequent loss at the time of their removal will also be greater.
- 5.5 It is proposed in the AEE that a Tree Management Plan and an Urban Landscape Design Management Plan (ULDMP) will be provided at the OPW stage which will include replacement planting and tree protection measures so that effects on trees can be ‘mitigated.’
- 5.6 In my assessment this is inadequate. The i-tree calculation of eco-system services has now been updated to include NZ species and conditions. I consider that it is essential that the designation includes a requirement for the provision of sufficient replanting to adequately remedy the loss at the time of tree removal, rather than having a condition that merely requires them to ‘mitigate’ the removals through the provision of a ULDMP landscape plan at a future date.

## 6. Submissions relevant to arboriculture

- 6.1. A total of 58 submissions in relation to the proposal relevant to arboricultural matters have been received. These include concerns regarding the loss of urban ngahere, the loss of treescape along the sides of Te Irirangi Drive, the loss of the Norfolk Pines from the northern Lambie Drive median, and the loss of Scheduled Notable trees.

- 6.2 The submissions regarding trees have been summarized as:

**NoR 1** - 34 submissions concerning loss of trees, opposition to the inclusion of walking and cycling facilities along both sides of the corridor along Te Irirangi Drive, reduction in trees and the urban ngahere canopy coverage across this area, increased flooding risk and climate impacts, an increase in the urban heat and island effect, decreased visual amenity, loss of shade, decreased health and wellbeing to the public and decreased air quality.

**NoR 2** - 16 submissions concerning loss of trees along Te Irirangi Drive, flooding and climate change effects from removal of trees, loss of Norfolk Pine trees down the center of Lambie Drive, including their ecological purposes and attractive visual backdrop, loss of trees and grassed median will mean less soakage for rainwater and a significant ecological loss.

**NoR 3** - 5 submissions concerning loss of trees, flooding and climate change effects from removal of trees and increase in hard surfaces.

**Heritage New Zealand Pouhere Taonga** have specifically submitted that “Cambria Park Homestead and its garden setting extent, Gardener’s Cottage, and the associated wider heritage landscape, including Notable Trees have not been identified or considered. Other garden elements, including surviving trees and other plantings, have likewise not been adequately identified or assessed.”

**NoR 4** - 3 submissions concerning loss of trees, flooding, and climate change effects from removal of trees and increase in hard surfaces.

## 7. Recommendation

- 7.1 I agree with and support the submissions received regarding the adverse environmental effects of the proposed protected tree removals and recommend that options be sought to reduce the number of trees that need to be removed.
- 7.2 I also recommend that the designation conditions include a requirement that the replanting to be undertaken is sufficient to replace the lost eco-system services that the removed trees provide at the time of tree removal. This can be achieved through the ULDMP conditions, and it is my recommendation that an addition be made to the ULDMP replanting condition that specifies what details the ULDMP(s) must include, with the specific requirement for:
- Restoration planting which remedies the loss of ecosystem services provided by vegetation identified for removal, including the replacement of planting that fails to establish.

## Appendix A

### AUP Ecosystem Services

The Auckland Unitary Plan specifically lists the provision of ecosystem services as a matter of importance for trees in roads and open spaces as shown in the following excerpts from chapters E15, E16 and E17 of the AUP.

#### AUP - Ecosystem Services

##### Chapter E15 - Vegetation management and biodiversity

###### E15.2. Objectives

- (1) Ecosystem services and indigenous biological diversity values, particularly in sensitive environments, and areas of contiguous indigenous vegetation cover, are maintained or enhanced while providing for appropriate subdivision, use and development.

###### E15.3. Policies

- (2) Manage the effects of activities to avoid significant adverse effects on biodiversity values as far as practicable, minimise significant adverse effects where avoidance is not practicable, and avoid, remedy or mitigate any other adverse effects on indigenous biological diversity and ecosystem services, including soil conservation, water quality and quantity management, and the mitigation of natural hazards.

#### Chapter E16. Trees in open space zones

##### E16.1. Background

Environmentally, trees provide important ecological values in terms of storing carbon and providing habitat and food for wildlife, improving air quality and providing ecosystem services.

##### E16.8.2. Assessment criteria

The Council will consider the relevant assessment criteria for restricted discretionary activities from the list below:

The specific values of the trees including any ecological values with respect to water and soil conservation, ecosystem services, stability, ecology, habitat for birds and amelioration of natural hazards.

## E17. Trees in roads

### E17.1. Background

Trees in roads make streets more attractive and contribute to pedestrian amenity and public health. Environmentally, trees provide important ecological values in terms of storing carbon, providing habitat and food for wildlife, improving air quality and providing ecological and amenity values.

### E17.8.2. Assessment criteria

The Council will consider the relevant assessment criteria for restricted discretionary activities from the list below:

The specific values of the trees including any ecological values with respect to water and soil conservation, ecosystem services, stability, ecology, habitat for birds and amelioration of natural hazards.

Thank you.



Gavin R. Donaldson - Senior Arborist

Earth, Streams, and Trees Specialist Unit – Auckland Council.

26<sup>th</sup> April 2023



To: Trevor Mackie – Consultant Reporting Planner  
From: James Hendra – Consultant Parks Planner, on behalf of Parks Planning, Parks & Community Facilities Department, Auckland Council  
CC: David Wong – Senior Policy Planner  
Hester Gerber – Parks Planning Team Leader

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**Subject: Airport to Botany Bus Rapid Transit Notice of Requirement – Parks Planning Assessment**

## **1.0 Introduction**

- 1.1 My name is James Anthony Hendra. I hold the qualifications of Master of Planning Practice (hons) from the University of Auckland and Bachelor of Business from Auckland University of Technology. I am a full member of the New Zealand Planning Institute and a member of the New Zealand Recreation Association.
- 1.2 I have over 17 years' professional planning experience, including 11 years in specialist open space planning and public policy roles. I am the director and principal planner at WLA, a resource management, landscape architecture and project management practice.
- 1.3 Parks Planning have been requested to review the impacts of the A2B NoR in terms of council's parks and open spaces affected.
- 1.4 My involvement in this application has been to assess and report on the plan change application from an open space perspective, on behalf of Parks Planning (Auckland Council). This role commenced in March 2023, after initial Parks Planning assessment and information requests and responses were handled by a different Parks Planner.
- 1.5 In writing this memo, I have reviewed the following documents:
  - AEE by Beca
  - Social Impact Assessment by Beca
  - Assessment of Transport Effects by Beca
  - Assessment of Arboricultural Effects by Beca
  - General Arrangement Plans by Beca
  - SGA section 92 response table by Beca
  - Updated proposed conditions set (Feb 2023).
- 1.6 I have received technical input from Emily Wagon, Parks and Places specialist, Lea van Heerden, Senior Parks Planner, Alan Christensen, Manager - Land Advisory Services Parks & Community Facilities.

## **2.0 Overview**

- 2.1 The Airport to Botany Bus Rapid Transit (BRT) Project will provide an 18 km, dedicated, high capacity, reliable, and frequent BRT corridor and walking and cycling facilities.
- 2.2 I defer to the reporting planner to provide a detailed description of the NoR. This memo focuses on the effects of the NoR on parks and open spaces and provides recommendations for how effects may be managed more effectively via amendments to proposed conditions.

- 2.3 The A2B project will significantly improve people's access to public open spaces by integrating cycling and walking linkages to the transport corridor and its nodes. The project should integrate sympathetically where it connects with open spaces. The overall objectives and intent of the project is supported by Parks Planning, subject to adoption of recommended conditions.
- 2.4 The proposed designation footprint within NoR 1 and NoR 2 will affect public open spaces which provide for both passive and active recreation enjoyed by the local and wider communities. The project will affect each location differently.
- 2.5 Route protection, construction effects, and long-term loss of open space land may result in adverse effects which may be significant if not recognised and mitigated appropriately.
- 2.6 This memo is set out as follows:
- Sections 3 and 4 - key issues and recommendations.
  - Section 5 - general matters.
  - Sections 6, 7 and 8 - pre-construction, construction, and post-construction effects.
  - Sections 9 (NoR 1) and 10 (NoR 2) - effects on each open space.
  - Section 11 – conditions review.
  - Section 12 – submissions.
  - Section 13 – conclusion.

### **3.0 Key Issues**

- 3.1 Pre-construction route protection effects restrict council's ability to upgrade affected areas of open spaces for up to 15 years. Amendments to conditions are recommended to enable development of affected areas of open spaces without further permissions from the Requiring Authority.
- 3.2 Construction stage management plan conditions do not sufficiently provide for assessment of open space use and functions. The conditions also do not require involvement of council, which is necessary to determine effects on open spaces, and consequently determine how effects are best managed and/or mitigated. Amendments to conditions are recommended to require assessment of open space use and function at the time of construction, and to enable council involvement.
- 3.3 The AEE does not provide an analysis of the proposal in terms of how it would be consistent with land status classified under the Reserves Act 1977.
- 3.4 The designated area within the Manukau Sports Bowl, for the purpose of A2B stormwater management, significantly impacts upon development of the park as intended under the Masterplan recently adopted (Feb 2023) by the Ōtara-Papatoetoe Local Board and prepared in partnership with Eke Panuku. Therefore, the proposed designated area within this park is not supported.

### **4.0 Recommendations**

- 4.1 For the reasons set out in this memo, the following clarifications or amendments to conditions are proposed:
- Condition 6. Network Utility Operators (Section 176 Approval)
- 4.2 The proposed condition provides for some level of 'permitted' upgrade of facilities in parks. However, the application of the condition is subject to interpretation.

- 4.3 Clarification of the intended scope of the term 'park facilities' is sought. The term is not defined in the conditions or the AUP:OP.
- 4.4 The preference of Parks Planning is that the scope of renewal and upgrade of parks is not limited. For clarity, it is recommended that the term 'parks' is used as an all-encompassing term, replacing the term 'parks facilities.
- 4.5 It is unclear how the term 'effects' would be considered in the context of the condition. With respect to the upgrade or replacement being *"in the same location with the same or similar effects ... as the existing park facility."*
- 4.6 Overall, amendments are sought to provide a blanket permission to allow for the designated parks areas to be upgraded and developed as needed to meet the recreation needs of the community.

#### Condition 7. Outline Plan

- 4.7 Recommend that a Development Response Management Plan (DRMP) are added to the list of plans that may be required as part of an Outline Plan.

#### Condition 10. Stakeholder Communication and Engagement Management Plan (SCEMP)

- 4.8 Amend to fully include the recommendations of the SIA, to require the preparation and adoption of a Development Response Framework and Plan. Include reference to provision of an "assistance package".

#### Condition 11. Urban and Landscape Design Management Plan (ULDMP)

- 4.9 Amend to provide for the plan to be prepared in consultation with council with respect to open spaces.
- 4.10 Require an assessment of existing CPTED risks for works at Kellaway Drive.
- 4.11 Require the addressment and/or the provision for a greenway link path at Medvale Reserve.
- 4.12 Require the provision of routes over the restored stream at Puhinui Domain.

#### Condition 13. Construction Traffic Management Plan

- 4.13 Amend the scope to address effects beyond 'construction traffic', to 'construction'.
- 4.14 Amend the purpose to not be limited by "as far as practicable" with respect to access to open spaces. This is required to give assurance that the Requiring Authority's commitment *to provide and maintain access to open spaces is during construction.*
- 4.15 Amend to provide for the plan to be prepared in consultation with council with respect to open spaces.

If not addressed under the scope of recommendations above:

Amend to require that access to Rongomai Park will be available for:

- Maintenance and servicing as required by Auckland Council
- Training on weeknights and weekends
- Competition and events.

### **5.0 NoR – Airport to Botany – General Assessment of Effects on Open Spaces**

- 5.1 The proposed designation footprint will affect reserves in the open space network which provide for both sports and passive and active recreation activities for the local and wider community. The impact varies as the project will affect each location differently.

Table 2: Affected Open Spaces

NoR 1				
Reserve name	Open Space Zone	Address	Reserves Act Classification	Area within designation
Kellaway Drive Reserve	Informal Recreation	20R Kelvin Hart Dr East Tamaki	No classification	3,811 m <sup>2</sup>
-	Informal Recreation	310 Te Iirangi Dr Clover Park and 303 Te Iirangi Dr Clover Park	Flood Protection Purpose (PWA) Land acquired for severance (PWA)	6,807 m <sup>2</sup>
Sancta Maria Ponds	Informal Recreation	2 Stancombe Rd Flat Bush and 336R Chapel Rd Flat Bush	Not classified  Local purpose (Drainage) reserve	586 m <sup>2</sup>
Rongomai Park	Sport and Active Recreation  Informal Recreation	238 Te Iirangi Dr Clover Park	Recreation Flood detention works (PWA)	3,697 m <sup>2</sup>
Medvale Ave Reserve	Informal Recreation  Conservation	51R Medvale Ave Flat Bush	Recreation  Local Purpose (Drainage) reserve	367 m <sup>2</sup>
NoR 2				
Reserve	Zones	Address	Reserves Act Classification	Area
Orlando Reserve	Informal Recreation  Zone	125R Te Iirangi Dr  Clover Park	Local purpose (amenity) reserve	2,825 m <sup>2</sup>
Manukau Sports Bowl	Informal Recreation  Open Space Sport and Active Recreation	19R Boundary Rd Otara  1 Boundary Rd Otara	Recreation	17,391 m <sup>2</sup>
Hayman Park	Informal Recreation	15R Davies Ave Manukau	No classification	3,091 m <sup>2</sup>
Puhinui Domain	Informal Recreation	50R Plunket Ave Manukau	Drainage purpose Recreation  Utility reserve	17,004 m <sup>2</sup>

- 5.2 The Requiring Authority has undertaken limited consultation with council with respect to parks and community facilities. An agreement has not been reached for any permanent land take. This is of particular concern with respect to Rongomai Park and the Manukau Sports Bowl where these parks provide important recreation facilities and benefits to communities.

- 5.3 The AEE does not contain an assessment against the loss of open space or recreational assets or proposed mitigation in existing nearby parks to compensate for value and amenity and service provision loss, aside from an intention to acquire necessary land.
- 5.4 The loss of open space within an existing urban fabric must be compensated for land elsewhere. There is very little opportunity to acquire additional open space in existing urban areas generally, and where increasing density and intensification is occurring. Incremental erosion of open space land for infrastructure purposes cannot be supported without adequate assessment of impacts and commensurate compensation.
- 5.5 Reserve management plans govern the uses that are allowed to take place on each type of reserve, what cannot take place in reserves, and the procedures that must be adhered to concerning any business regarding reserves. The relationship of the Reserves Act to the Resource Management Act is a complementary one. Together the Acts operate a dual mechanism for the protection and management of land classified as reserve land under the Reserves Act. The Resource Management Act sets the legal basis for the associated district plan in managing the effects on the environment of activities taking place on public open space zones. While the Reserves Act ultimately determines the types of uses appropriate for those public open space areas. The purpose and principles of the Resource Management Act guide all environmental policy and management. In doing so consideration must be given to any proposed master plans for existing open spaces, the function and purpose of the open spaces, their management plans and strategies prepared under other Acts.
- 5.6 Ronomai Park, Puhunui Domain, Medvale Avenue Reserve and the Manukau Sports Bowl are all classified as having a primary function of 'recreation'. The AEE does not provide an analysis of the proposal in terms of how it would be consistent with land status classified under the Reserves Act 1977.

## 6.0 Route Protection Phase Effects: Pre-construction

- 6.1 The route protection phase of the project occurs from notification of the NoR until the design and construction phase. This phase may be up to 15 years in duration.
 

The effect of the designations is that council cannot develop the affected areas of its parks or facilities without the prior written consent of the Requiring Authority.
- 6.2 Specifically, section 176 of the RMA requires permission from the Requiring Authority to do anything in relation to the land that is subject to the designation that would prevent or hinder a public work or project or work to which the designation relates, including—
  - (i) undertaking any use of the land; and
  - (ii) subdividing the land; and
  - (iii) changing the character, intensity, or scale of the use of the land.
- 6.3 Insofar as the NoR occupies the parks, this impacts upon council's ability to meet the recreational needs of community's experiencing growth, increased density, and the increased demand for people to have places to recreate.
- 6.4 Contextually, over the next 20 years, the population of the Howick and Otara Papatoetoe Local Board areas is expected to increase significantly. Table 1 provides a summary; however, these figures may be higher due to the proposed transformation works in Manukau Central by Eke Panuku. It is anticipated that the resident population of the area increase from 6,000 residents to 20,000 by 2040 (Manukau Framework Plan, 2007, p 8).
- 6.5 In addition to the resident population growth, it is expected that more people will be coming to the area for employment, with East Tamaki, Howick, proposed to become the employment hub of the area and is planned to become one of Auckland's largest industrial zones.

Table 1:

Local Board	2023*	2038* (approx. time of construction)	2043*
Howick	160,500	180,400	185,900
Otara Papatoetoe	97,700	106,000	107,500
Source: StatsNZ (31 March 2021)			
*medium projections			

- 6.6 To accommodate this growth, the Unitary Plan has zoned many of the residential areas around the A2B route as either The Residential – mixed housing urban zone, The Residential – Terrace Housing and Apartment Buildings Zone, enabling a greater intensity of development, ranging from detached dwelling and low-rise apartments to building that are five to seven storeys.
- 6.7 The combination of population growth and the lack of personal gardens/ backyards will place significant pressure, on the existing open space.
- 6.8 Locals are aware how important the open space reserves vested as stormwater are to their greenway network. The reliance of these stormwater reserves for passive recreation will increase over time.
- 6.9 The designations over the open spaces limit Council’s ability to enhance these to meet the growing demand.
- 6.10 The park most affected by pre-construction or route protection effects is the Manukau Sports Bowl where significant redevelopment and upgrades are planned. A masterplan, prepared with extensive consultation with the community and in partnership with Eke Panuku was formally adopted by the Ōtara-Papatoetoe Local Board in February 2023.
- 6.11 The Masterplan would not be able to be delivered as intended because the designated area extends within the southern boundary and south-eastern corner adjacent Sandrine Avenue. Significantly, the designation extends into an area of land which is identified as an opportunity for commercial development anticipated to fund the overall development.
- 6.12 In addition to the unique and location specific impact upon the Manukau Sports Bowl, the general impact on a NoR on open space can extend beyond the footprint of the designated area. This is because, in the context of a park, design and functional aspects are interrelated and interconnected. A park is designed and developed in the whole, considering multiple aspects including vehicle and pedestrian access and circulation, toilets, clubrooms, furniture and play, sports fields and training areas, trees, landscaping, passive recreation, stormwater management and lighting.
- 6.13 Therefore, the designation will affect council’s ability to improve or scale-up provision and assets within the designated and interdependent areas of open spaces. This effect may be significant. Location specific assessments are provided later in this memo.
- 6.14 The AEE is silent with respect to acknowledging the route protection effects on open spaces and communities these serve. The impact that route protection will have upon the council’s ability to upscale and develop parks generally, and therefore upon the recreation needs of the immediate and wider community, is not adequately acknowledged.
- 6.15 The supporting Social Impact Assessment acknowledges the “...*extensive redevelopment plans for the Manukau Sports Bowl...*”<sup>1</sup> and acknowledges ‘Fear and aspirations’ as moderate adverse effects upon directly affected landowners.<sup>2</sup>

<sup>1</sup> VOLUME 4 Airport to Botany Social Impact Assessment December 2022. Version 1. Pg 25

<sup>2</sup> VOLUME 4 Airport to Botany Social Impact Assessment December 2022. Version 1. Pg 119

6.16 The directly affected landowner in this case is Auckland Council. The affected community is described to experience:

*“Potential negative impacts associated with fear of disruption to local community character, and perceptions about potential long term changes to the fabric of the community, particularly in combination with other potential construction activity such as the Eke Panuku redevelopment of the Manukau Sports Bowl ...”<sup>3</sup>*

6.17 Local communities may also feel fear, anxiety, distrust, and disappointment that the Manukau Sports Bowl cannot be developed in accordance with the adopted Masterplan which was shaped with community involvement. The community may expect the ‘council family’ to respect the Masterplan process and not propose new projects that would undermine the outcomes.

6.18 The most obvious way for the route protection phase effects to be addressed is for conditions be offered which would allow for the development and upgrading of parks within the designation footprint. This can be done by refining the proposed s176 condition to be clear in scope and application.

6.19 The lodged condition set included a specific s176 ‘permission’ condition which provide network utilities a level of per-approval under s175.

6.20 Following Parks Planning feedback, in February 2023, the condition was amended to also provide a level of permission for Auckland Council to undertake limited renewal and upgrade of parks facilities within the designated area. The proposed condition is open to interpretation and is assessed in detail later in this memo.

6.21 In summary, the intent of the amended condition is supported however clarification is sought to ensure clear interpretation and application in practice. If the condition is applied in a restive manner, it would not provide for council to renew and upgrade the areas of open space impacted by the NoR.

## 7.0 Construction Phase Effects

7.1 Construction activities located alongside and within open spaces will likely result in restricted or no access for periods of time. This will impact upon people’s ability to access and enjoy open space destinations, and less obviously, council’s essential ability to maintain and service.

7.2 The duration of disruption is not provided for specific locations, however, overall is between 3 and 6 years for different stages.

The primary methods proposed to mitigate construction effects are conditions, notably:

- Stakeholder Communication and Engagement Management Plan (SCEMP)
- Construction Noise and Vibration Management Plan (CNVMP)
- Urban and Landscape Design Management Plan (ULDMP)
- Construction Traffic Management Plan (CTMP).

7.3 Conditions are assessed later in this memo. In summary, amendments are recommended to require council involvement and to improve management of construction effects.

7.4 The AEE recognises construction effects on open space as part of wider Social Effects (Section 9.6 Social) but does not describe how the functional areas of open spaces will be impacted or how the management plans would effectively determine the access required and how this would be managed.

7.5 No assurance is made, in the AEE or via conditions, that adequate access will be provided to ensure open spaces will remain accessible and operational. A section 92 response<sup>4</sup> does

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<sup>3</sup> VOLUME 4 Airport to Botany Social Impact Assessment December 2022. Version 1. Pg 119

<sup>4</sup> SGA section 92 response table

provide this assurance; however, for certainty the commitment needs to be reflected in the conditions.

- 7.6 Without a commitment to achieve access, potential construction effects on open space are assessed to be likely significant.

The social impact section of the AEE partly acknowledges construction effects on open spaces:

*“Parking and access to some businesses or facilities that are important to the community will be impacted during construction”.*<sup>5</sup>

- 7.7 The most significant construction effects will be at parks which have an active sport component and where access is affected. For example, at Hayman Reserve, Manukau Sports Bowl and Rongomai Park. The construction will likely limit people’s ability to recreate, both passively and actively, and will be notable at the local and wider scale for sporting clubs which use the parks for training and competition.
- 7.8 Hayman Park has a passive function but may also be significantly affected due to the extent of works surround the park and its interdependent civic/passive space function at the centre of Manukau.
- 7.9 To fully mitigate construction effects on open spaces, and the consequent effects on communities who rely on these places, the project needs to ensure no loss of provision or service at open spaces which might be caused by access restrictions. However, this might not be possible, therefore, the planning of the construction phase and mitigation needs to be informed by the specific effects on each open space and adapted and mitigated accordingly. However, the proposed conditions do not ensure this approach or outcome.
- 7.10 Mitigation of construction effects would require an understanding of required access, and solutions being in place to ensure that facilities are able to be accessed when needed. When facilities are rendered unavailable, replacement facilities would need to be provided.
- 7.11 To address the potential construction effects identified, a Construction Traffic Management Plan (CTMP) will be prepared prior to the start of construction. The objective of the CTMP is to avoid, remedy or mitigate, as far as practicable, adverse construction traffic effects.
- 7.12 THE CTMP condition does not require an assessment of function and/or access needs of an open space. It is therefore unclear how these needs would be understood and provided for in a CTMP. The shortcomings of the CTMP condition and remedies proposed are assessed later in this memo.
- 7.13 Access outcomes were queried during the section 92 process. The Requiring Authority responded:
- “Access to parks will be maintained through the construction and operation of the Project. These are specific matters addressed in the proposed Stakeholder Communication and Engagement Management Plan and the Construction Traffic Management Plan.”*<sup>6</sup>
- 7.14 As outlined later in this memo, the CTMP and SCEMP plan do not require access to parks to be maintained through the construction of the project.
- 7.15 The application Social Impact Assessment also recommends a Development Response Framework and Plan as a strategy to manage social impacts.
- 7.16 A Development Response Plan appears to be an appropriate way to involve affected parties and ensure the project adapts to the operational needs of open space at the time of construction. The SIA states<sup>7</sup>:
- “Strategies to manage social impacts (positive and negative) during the planning phase include:*
- *Community and Stakeholder Engagement Strategy.*
  - *Development Response Plan; and*

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<sup>5</sup> AEE pg. 85

<sup>6</sup> SGA section 92 response table

<sup>7</sup> VOLUME 4 Airport to Botany Social Impact Assessment December 2022. Version 1. Pg 51



- *Community Health and Wellbeing Strategy.*”

7.17 Development Response is described as<sup>8</sup>:

*“... the coordinated planning and implementation of tools to mitigate the impacts of large-scale development and cumulative impact of construction activity on people, in particular businesses.*

*The Development Response Plan is prepared during the planning stage prior to construction and implemented just prior to and during construction. It is agile and evolves during implementation to respond to what is happening at the time.*

*Development Response Frameworks have been applied in several projects in Auckland and in Queenstown. While applied within urban commercial environments, many of the strategies can be applied in residential areas as well, especially those related to communications, site management, and way finding.*

...

*Auckland Council has a Development Response Framework and Auckland Transport is developing their own approach at present. It is expected that by the time the Project proceeds to detailed design and active property acquisition a few years prior to construction, that Auckland Transport will have a well developed and tested approach to Development Response the Project can build upon.”*

- 7.18 The SIA outlines that as part of preparing a Development Response Plan for the Project in accordance with Auckland Transport’s Development Response Framework (in the period 18 months to two years prior to construction, i.e., in the pre-implementation phase), that an appropriate assistance package should be taken into consideration.
- 7.19 When construction restricts access and therefore functionality of open spaces, then this may impact upon the clubs or codes in terms of membership and operations. The proposed use of assistance packages could be an appropriate method to mitigate these effects.
- 7.20 Should the Requiring Authority adopt the recommended mitigation strategies and plans outlined in the SIA as conditions of consent, these would likely assist in mitigating effects on open space with respect to assessing the impacts at the time of construction, adapting the construction to mitigate impacts, and compensate affected groups.
- 7.21 The SIA recognises compensation may be required for affected businesses, described as an ‘appropriate assistance package’. In my opinion, user groups such as of clubs who are affected by the project works should also be assisted if the works will affect their ability to retain members or operate. The SIA assistance package is described as follows<sup>9</sup>:

*“Appropriate assistance package*

*An assistance package is important to support businesses affected by projects both to help them manage impacts of construction and to help them maximise the opportunities the projects present. The more successful packages are administered by a committee/steering group comprised of members of the business community as well as the Project Team.”*

- 7.22 The Development Response Plan/Framework is described and proposed to be implemented in both the AEE and SIA, however, it is not proposed as a condition.
- 7.23 It is recommended that a Development Response Plan condition is proposed. The plan would address the following concerns:
- Require an understanding of the uses, functions, and access requirements of open spaces.
  - Require the construction to be adaptive and agile to respond to open space needs.

<sup>8</sup> VOLUME 4 Airport to Botany Social Impact Assessment December 2022. Version 1. Pg 52

<sup>9</sup> VOLUME 4 Airport to Botany Social Impact Assessment December 2022. Version 1. Pg 53

- Require an 'appropriate assistance package' affected community groups or clubs to be compensated.
- 7.24 Should the recommended mitigation strategies and plans outlined in the SIA not be adopted then the CTMP and SCEMP conditions alone are assessed to be inadequate to assess and manage adverse construction effects on open spaces.

7.25 Trees

Removal of trees within open spaces appears largely unavoidable due to the project footprint and works area. Many trees are proposed for removal, some of which are located within open spaces. I defer expert review to council's arborist.

## 8.0 Post Construction Effects: Property Matters

- 8.1 Section 9.7 (Property) of the AEE outlines that:

*"Land required for the permanent work will be acquired prior to construction.*

*Following the Completion of Construction, the designation boundary will be reviewed and any land that is not required for the permanent work or for the on-going operation, maintenance, or mitigation of effects of the Project will be reinstated in coordination with directly affected landowners or occupiers.*

*This will include:*

- *Reinstatement of construction areas and reintegrating with the surrounding landform.*
- *Reinstatement of driveways, accessways, fences and gardens; and*
- *Integration of batters and cut/fill slopes with the landscape.*

*These matters will be discussed prior to or during construction with directly affected landowners and will follow the provisions under the Public Works Act 1981 which is a process separate from the requirements of the RMA."*

- 8.2 Parks Planning posed queries regarding section 92 questions on this matter, noting that council:

*"...have not agreed to any permanent land take for the purpose of a future designation over existing parks, especially relating to Hayman Park and Manukau Sports Bowl where there are active communities participating within these open spaces. These parks have ongoing master plans already in progress to develop the parks to meet the needs of the future communities within the same receiving environment."*

- 8.3 The Requiring Authority responded:

*"Engagement with Auckland Council Community Facilities has been ongoing throughout the development of the AEE and will continue post lodgement.*

*It is anticipated that the outcomes of these discussions will be subject to some form of formal agreement between the various parts of Auckland Council involved.*

*We intend to update the Auckland Council processing team on these discussions in advance of the hearing and preferably in advance of the release of the initial s42A report.*

*Notwithstanding the above, one outcome of discussions to date is an agreed revision to the proposed Network Utility Operators condition to include specific reference to Auckland Council and park facilities ..."*

- 8.4 At the date of this memo, no agreement has been reached between Auckland Council Community Facilities and the Requiring Authority and an update has not been received.

- 8.5 Any agreement would likely need to consider betterment or redress appropriate to the recreation need at the time of the project, up to 15 years into the future. The taking of recreation land without a clear proposal for redress or compensation is not considered to be acceptable.

## 9.0 **NoR 1 – Specific Assessment of Open Spaces**

### **Kellaway Drive Reserve**

- 9.1 Kellaway Drive Reserve is an important place for surrounding residents, providing for informal recreation and a connection to Greenmount Park from Kellaway Drive and connecting local roads, and Smales Road, Matarangi Road and Te Irirangi Drive.
- 9.2 The reserve is formed around a linear stormwater drainage function but also provides an important connection between Ti Rakau Drive and Smales Road. As Greenmount landfill is transformed, Kellaway Drive Reserve will provide an important connection for those living north of the site.
- 9.3 Surrounding residential density is expected to significantly increase over time.
- 9.4 Upgrade of the pathway which runs along the western side of the park is part of a wider 'priority recreational project' identified and described in the council's Howick Walking and Cycling Network plan, 2018. Along its length, the route links up with smaller paths which allows access to the reserve from Harris Rd, Riplington Rd, Morestead Ave, and most importantly, under Te Irirangi Road via an underpass which connects with the Tamaki Heights and Botany residential catchments.

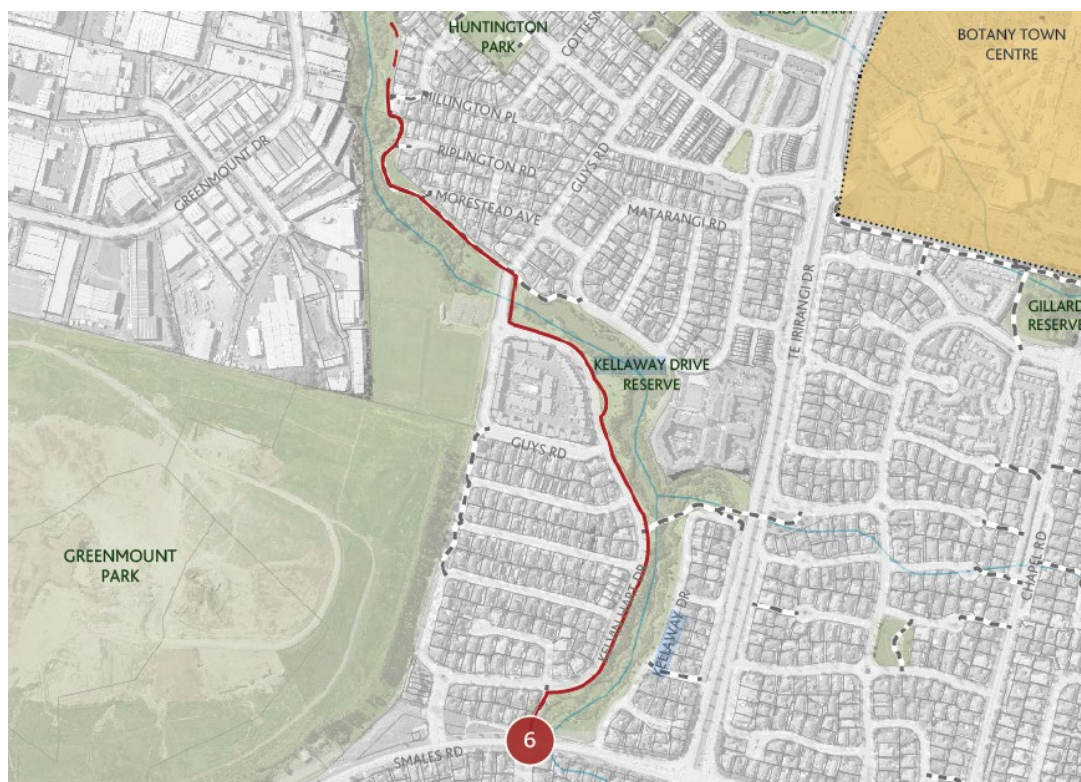


Figure 1: Kellaway Drive Reserve – Excerpt from HWNC plan

- 9.5 The NoR affects the reserve at the Smales Road and Te Irirangi Drive interfaces, however, would not affect the delivery of the pathway upgrade project.

### **Kellaway Drive Reserve - Smales Road Interface**

- 9.6 At the Smales Road end of the reserve, the NoR occupies the corner of the Kellaway Drive Reserve with a stormwater pond located within an open grassed area.

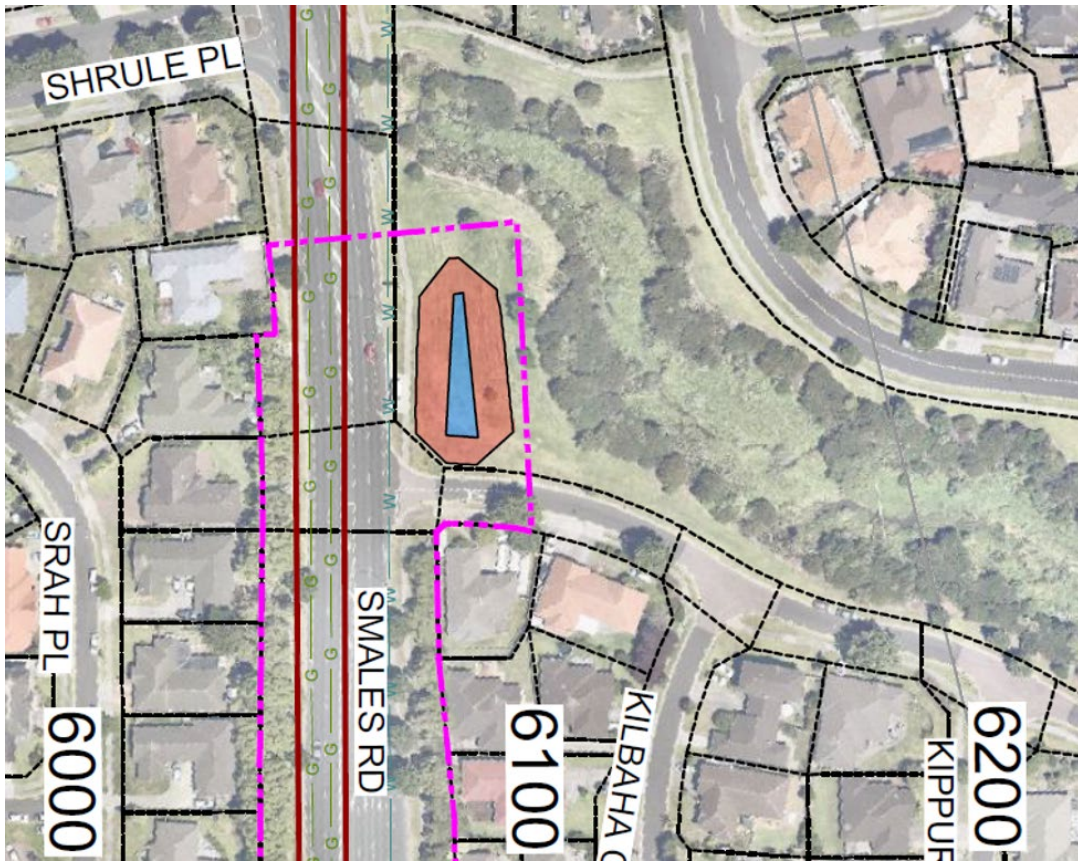


Figure 2: Excerpt from NoR 1 drawing Kellaway Drive Reserve



Figure 3: Kellaway Drive Reserve = Smales Road edge

- 9.7 The area of land affected by the NoR at this location is level and has a high degree of public visibility being supported by two road frontages. This area is a good location for local scale improvements, such as picnic tables or play.
- 9.8 The NoR footprint renders these outcomes less viable, as only a small area at the western side of the grassed area is outside the footprint.

- 9.9 Should the S176 condition be amended as recommended to allow improvements to parks land to provide for the needs of communities, then these effects would be mitigated as improvements could be done as needed, and then eventually replaced appropriately should the designation be given effect to.
- 9.10 In terms of character effects, the UDLMP conditions should ensure that the stormwater pond will integrate with the existing vegetated stream corridor and integrate with paths. The stormwater pond would be generally sympathetic with the existing stormwater function.

*Kellaway Drive Reserve – Te Irirangi Drive Interface*

- 9.11 Kellaway Drive Reserve adjoins Te Irirangi Drive at the eastern side. Kellaway Drive runs along the southern edge of the reserve. Crossing of Te Irirangi Drive is provided for by way of an underpass which connects to a park-like area of road reserve at Brinlack Drive.



Figure 4: Kellaway Drive Reserve – Te Irirangi Dr. interface

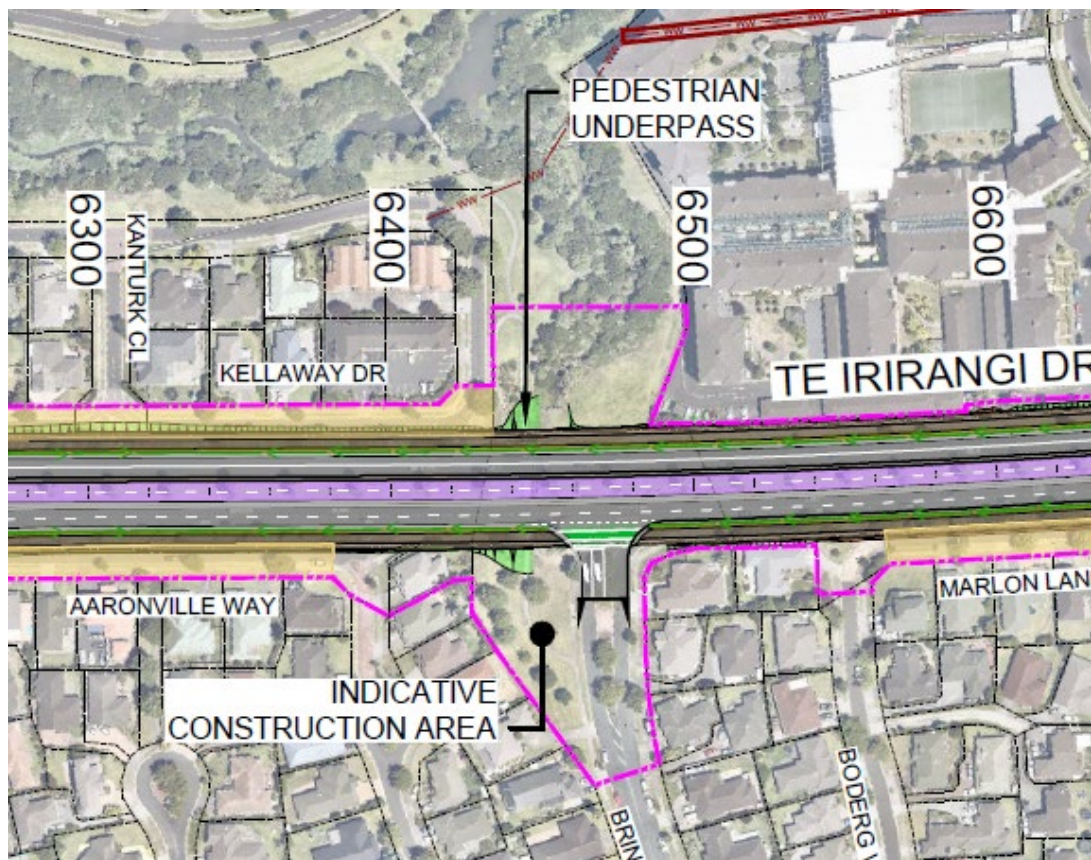


Figure 5: Excerpt from NoR 1 drawing Kellaway Drive Reserve

- 9.12 The proposal will result in widening of Te Irirangi Drive and a relatively small amount of encroachment into Kellaway Drive Reserve for the road and edge battering. The NoR footprint provides for a construction area within the reserve which would be reinstated post-construction.
- 9.13 The underpass is proposed to be retained and will necessarily be lengthened. The application Urban Design Evaluation identifies the existing underpass environment at Kellaway Drive / Brinlack Drive as a current identified CPTED risk and a place of (important) cross corridor connectivity. The report states:<sup>10</sup>
- “CPTED review of the NoR 1 project should address, at a minimum, the current identified CPTED risks including:*
- The existing underpass environment at Kellaway Drive / Brinlack Drive;*
  - Pedestrian overpasses at East Tamaki Drive and Whetstone Road; and*
  - Under bridge environments at the Otara Creek tributary overbridge and culverts.”*
- 9.14 The proposed ULDMP condition requires that the plan provide details of how the project promotes a sense of personal safety by aligning with best practice guidelines, such as (CPTED) principles, however, does not make specific mention of the Kellaway Drive underpass.
- 9.15 To ensure the expected assessment of existing CPTED risks at that Kellaway Drive informs the project outcomes, it is recommended that the condition be amended to specifically require an assessment of the existing risks and that these be addressed as far as practicable in the project outcomes.

### Sancta Maria Ponds

<sup>10</sup> Airport to Botany - Urban Design Evaluation – Part 1 (pg. 17)

- 9.16 The Sancta Maria Ponds open space is a reserve area which is primarily developed for stormwater purposes, however, also has open grassed areas and an informal path network.
- 9.17 The project will affect the reserve at the interface where Te Irirangi Drive will be widened. The works will result in a relatively small area of permanent occupation, batters, and a temporary construction area.

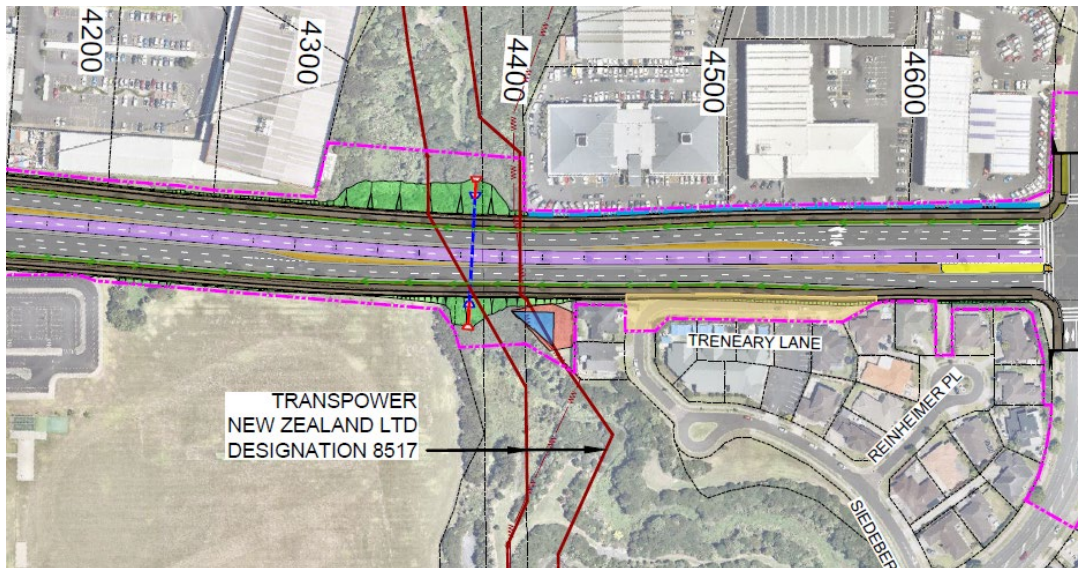


Figure 6: Excerpt from NoR 1 drawing Sancta Maria Ponds

- 9.18 The primary connection from Te Irirangi Drive into the reserve network is from Treneary Lane, and the project will be required to retain this connection.
- 9.19 Overall, the effects on Sancta Maria Ponds are assessed to be acceptable and will be managed appropriately via the proposed UDLMP and Ecological Management Plan conditions.

**Rongomai Park**

- 9.20 Rongomai Park is a spacious and well-maintained park that covers an area of approximately 9 hectares. It features a range of amenities and facilities, including a the Rongomai Sports Centre, large open field for sports and recreation, softball/baseball diamond, and seating, and spacious open areas for information recreation.
- 9.21 Rongomai Park is contiguous with Preston Road Reserve to the west and is adjacent to Tangarao School and Rongomai School. Rongomai Park plays an important role in the social and recreational life of the Otara community.
- 9.22 Increasing population growth and residential density will see extra demand placed on Rongomai Park in the future for organised sport and informal recreation.



Figure 7: Rongomai Park – GIS aerial

9.23 The most significant built feature and vital functional component of Rongomai Park is the car park which is located along the eastern side adjacent to and accessed from Te Irirangi Drive.



Figure 8: Rongomai Park – NoR outline

9.24 The NoR designated area occupies the Rongomai Park frontage which includes a footpath alongside. It also steps into the park at the southern end where a ramp and overpass bridge provide safe pedestrian passage across Te Irirangi Drive. The bridge will be replaced with an at-grade crossing.



- 9.25 The impact of the NoR on Rongomai Park will be limited and/or restricted access to the reserve during the construction period. Access will be affected due to works immediately adjacent and along the wider Te Irirangi Drive catchment. The application AEE, social impact and traffic assessments acknowledge construction traffic impacts in a general sense but do not specifically acknowledge the impacts on Rongomai Park.
- 9.26 Appendix B of the Airport to Botany - Assessment of Transport Effects contains a property access and parking assessment specific to affected properties. Of the parks directly affected by the project, only Hayman Park is noted in the assessment. Despite the significant impact that the construction of the project may have on the operational capability of Rongomai Park these effects are not assessed.
- 9.27 In my view, because Rongomai Park has a significant active recreation function it is vital the needs of access are well understood to ensure that these can be provided for during construction. This necessarily requires involvement of Auckland Council and user groups, which is not provided for in the proposed conditions.
- 9.28 Due to the project being located along the entire road frontage and car park accesses, it is expected that the construction will result in periods of time when access to the park is significantly restricted or is unavailable. Wider works on Te Irirangi Drive would also likely restrict access.
- 9.29 Section 6.1.5 of the Assessment of Transport Effects sets out land use activities that will need further consideration in the CTMP, and outlines schools, a fire station, town centres and a police station as 'sites for consideration'. Recreational parks are not included in the list.
- 9.30 Given the important function that parks, such as Rongomai Park, have in providing for the recreational and social wellbeing of communities, and that the times of peak demand can be reliably determined at the construction planning stage, the basis for the omitting recreation reserves for specific consideration is unclear.
- 9.31 Works mitigation proposed is limited to preparation of a Construction Management Plan. The objective of the CTMP is to avoid, remedy or mitigate, as far as practicable, adverse construction traffic effects.
- 9.32 Given the lack of information about how the project will impact Rongomai Park, the fact that the condition is limited by the caveat of "as far as practicable" the effectiveness of the condition in addressing the effects on recreation function is in doubt.
- 9.33 Consistent with the identification of schools as an activity that will need further consideration in the CTMP, the CTMP condition specifically requires that the CTMP shall include:
- (iii) the estimated numbers, frequencies, routes and timing of traffic movements, including any specific non-working or non-movement hours to manage vehicular and pedestrian traffic near schools or to manage traffic congestion;*
- 9.34 In my opinion, to ensure that the needs for recreational access to Rongomai Park are understood, a condition is warranted to specifically and apply to reserves which have an active recreation function, for example:
- "...the CTMP shall include: ... (XX) the estimated numbers, frequencies, routes and timing of traffic movements related to the function of reserves used for active recreation.*
- 9.35 To provide certainty that Rongomai Park will be functional and available for maintenance by the council and for active recreation to serve the wider community, it is recommended that a specific condition be adopted that will ensure that access is available for:
- Maintenance and servicing as required by Auckland Council
  - Training on weeknights and weekends
  - Competition and events.
- 9.36 Safe pedestrian access is needed to enable pedestrians to access the park during construction. The CTMP condition provides for methods to maintain vehicle access to property but does not

require provision of pedestrian access. It is recommended that the condition be amended to provide for pedestrian access also.

- 9.37 The adoption of a condition which requires a Development Response Plan would also assist in ensuring that the uses and functions of Rongomai Park are understood and adapted to during construction, it would also provide a mechanism to consider and provide compensation for affected user groups, if warranted.
- 9.38 I recommended a condition that requires assessment of whether Rongomai Park can maintain adequate levels of access to enable usual function. If not, then further mitigation may be warranted.

## 10.0 **NoR 2 – Specific Assessment of Open Spaces**

### **Medvale Avenue Reserve (Howick Local Board)**

- 10.1 Medvale Avenue Reserve is a linear neighbourhood park and contains the southern continuation of the stream located in Rongomai Park.
- 10.2 The park is an important greenway corridor which connects residents to Te Irirangi Drive. As residential development intensifies, the importance of the connecting function will increase.
- 10.3 Upgrade of the pathway which runs along the western side of the park is part of a wider 'priority recreational project' proposed route identified and described in the council's Howick Walking and Cycling Network plan, 2018. The route continues north through Rongomai Park which is also identified as a proposed greenway route in the Ōtara-Papatoetoe Greenways Plan, 2017.

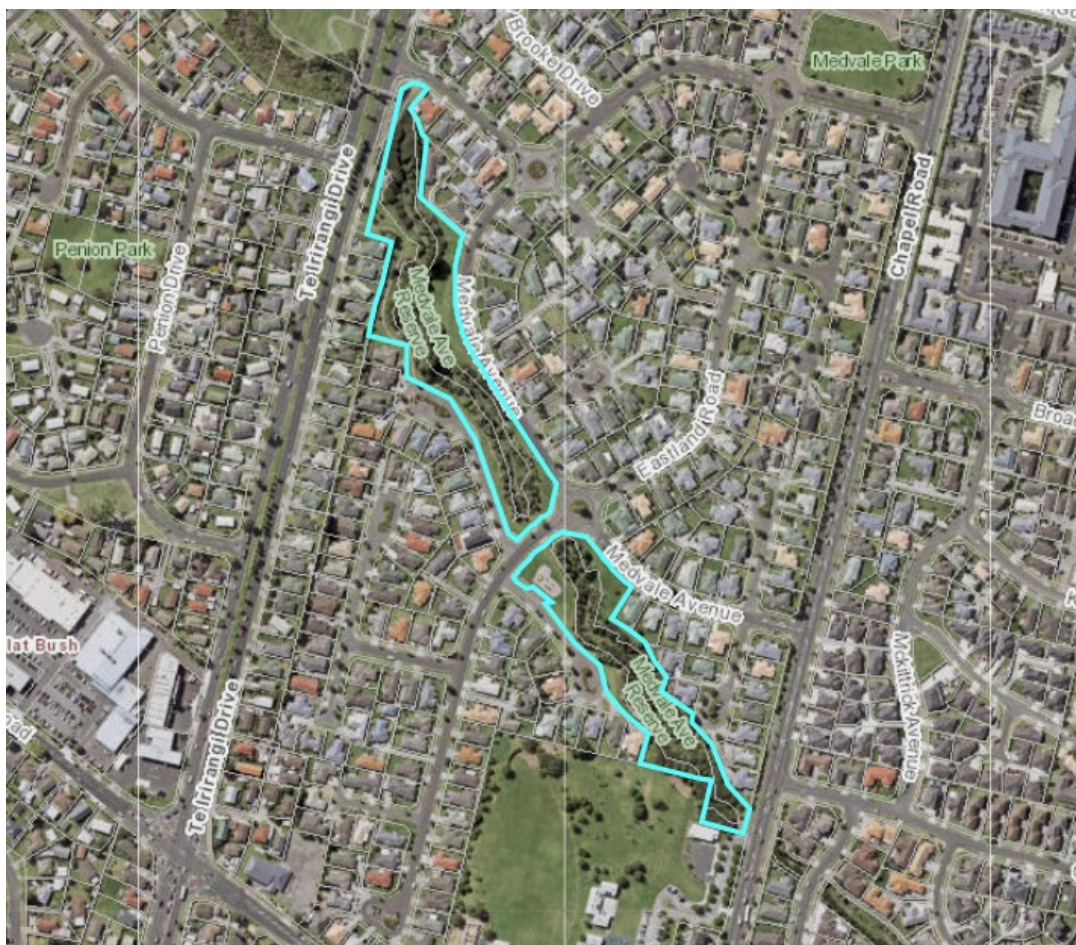


Figure 9: Medvale Avenue Reserve – GIS Aerial



Figure 10: Medvale Avenue Reserve– NoR outline

- 10.4 The NoR area occupies the northern part of the park near Te Irirangi Drive and involves the construction of a stormwater pond and battering. The proposed stormwater pond and NoR area covers and may render obsolete the existing pedestrian access located at the western side of the Te Irirangi Drive frontage.



Figure 11: Medvale Avenue Reserve – GIS Aerial – Existing path highlighted

- 10.5 The existing pathway and the local board plans to upgrade the route (as shown in both greenways plans) is not mentioned in the AEE or Urban Design reports. It is unclear if the location of the path and consequent impacts has been considered.
- 10.6 Due to the large area proposed to be occupied by the stormwater pond at the boundary with Te Irirangi Road, it is unclear if the project can be implemented and achieve the intent of the ULDM with respect to providing appropriate connectivity to existing land uses.
- 10.7 It is therefore recommended that a condition be adopted to specifically require retention and provision of a greenway link path at this location.

### Orlando Reserve

- 10.8 Orlando reserve is a small undeveloped pocket park located at the corner of Te Irirangi Drive and Boundary Road. The NoR area will only marginally affect the road boundary of Orlando reserve. No significant impacts are expected.



Figure 12: Orlando Reserve – GIS Aerial

### Manukau Sports Bowl (Ōtara-Papatoetoe Local Board)

- 10.9 The Manukau Sports Bowl is located between Te Irirangi Road, the southern motorway and Preston and Boundary Roads. Residential properties adjoin the eastern side.
- 10.10 The Manukau Sports Bowl is classified as a 'recreation reserve' under the Reserves Act 1977. The purpose of a recreation reserve is<sup>11</sup>:
- “...for the purpose of providing areas for the recreation and sporting activities and the physical welfare and enjoyment of the public, and for the protection of the natural environment and beauty of the countryside, with emphasis on the retention of open spaces and on outdoor recreational activities, including recreational tracks in the countryside.”*
- 10.11 In general, the classification provides for the primary purpose of recreation, whilst preserving any scenic, historic, archaeological, biological, geological, or other scientific features or indigenous flora or fauna or wildlife are present on the reserve.
- 10.12 The Manukau Sports Bowl is a multi-purpose active and passive recreation destination with a velodrome, greyhound track, playground, tennis courts and club buildings, function rooms, sports fields, and open grassed and treed areas with connecting paths.
- 10.13 The Manukau Sports Bowl hosts a variety of sporting events throughout the year and has also been used for music concerts and festivals, such as the Pacific Music Awards and the One Love Festival. It is an important sporting and cultural venue in Auckland, providing a valuable space for community events and entertainment.

<sup>11</sup> S17(1) Reserves Act 1977.



Figure 13: Manukau Sports Bowl – GIS Aerial

10.14 The Manukau Sports Bowl is located within the ‘Transform Manukau’ programme area which is led by Eke Panuku to develop Manukau to serve future generations and significant population growth.

10.15 In recognising that the Manukau Sports Bowl needs to be developed to provide for recreation needs now and into the future, the Ōtara-Papatoetoe Local Board worked in collaboration with Eke Panuku to develop a Masterplan.

10.16 The masterplan was developed via a process of needs assessment, research, workshops, and public consultation. Divided into three stages, the Masterplan shows how the Manukau Sport Bowl will meet the sporting and formal and informal recreation needs of future residents. The plan was formally adopted by the Local Board in February 2023.

## 5.2 Long Term Spatial Plan



Figure 14: Manukau Sports Bowl Masterplan excerpt – Long Term Spatial Plan

10.17 The Masterplan is to be implemented in stages as the funding becomes available. Potential funding sources include asset renewal, Eke Panuku capital expenditure, the application of service property optimisation and external funders.

10.18 Areas along the eastern side of the park have been identified as potentially available for development by Eke Panuku. The intention is that funds raised from development of these area would be used to develop the overall masterplan. The areas 'A' and 'B' are shown on the excerpt below.

### 5.3 Indicative Potential Development Areas

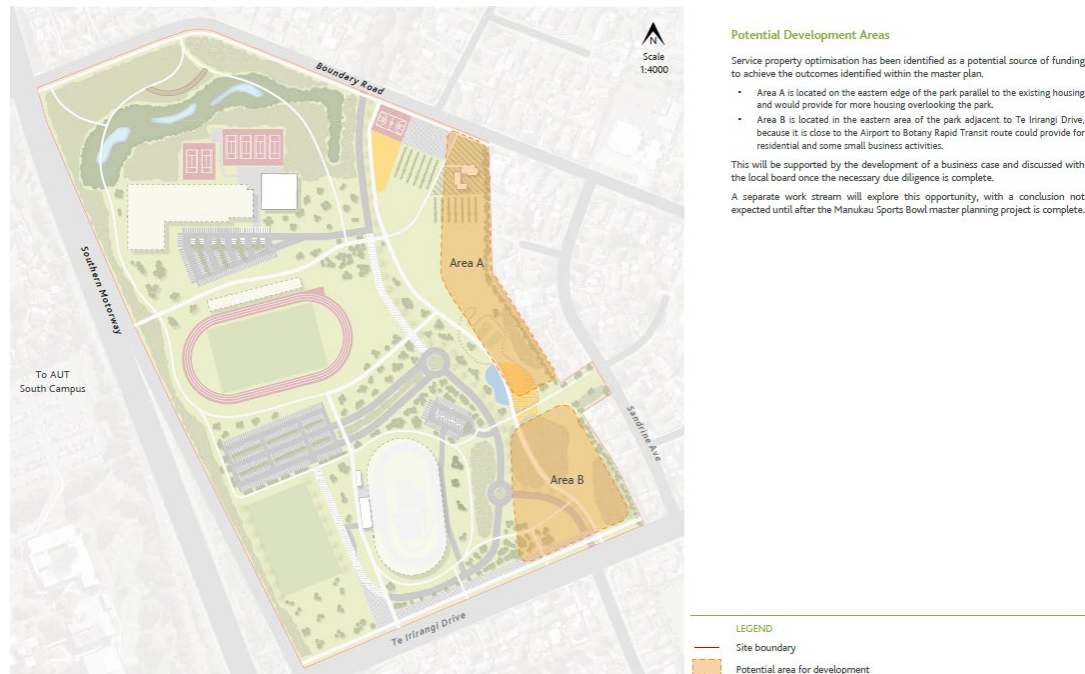


Figure 15: Manukau Sports Bowl Masterplan excerpt – Indicative Potential Development Areas

10.19 At the time of the NoR notification, the Manukau Sports Bowl Masterplan was ready for Local Board adoption. The requiring authority was aware of the masterplan process and its importance to the local board and communities of Manukau.

10.20 The application AEE notes that the project team has held workshops with Eke Panuku with respect to a potential stormwater treatment device within the Manukau Sports Bowl. Agreement for Auckland Transport to permanently locate a stormwater device within the Manukau Sports Bowl has not been reached. Different options outside the current NoR are being investigated, however, agreement has not been reached.

10.21 The NoR area is located along the frontage of Te Irirangi Drive which is an area occupied by a vehicle entrance, internal vehicle road, car park and trees and vegetation. This area is required for construction and the new road corridor.

10.22 The NoR area also extends up the eastern boundary and doglegs into the park opposite the Sandrine Avenue entrance. This area is intended to be occupied by a stormwater treatment device to service the needs of the A2B project.

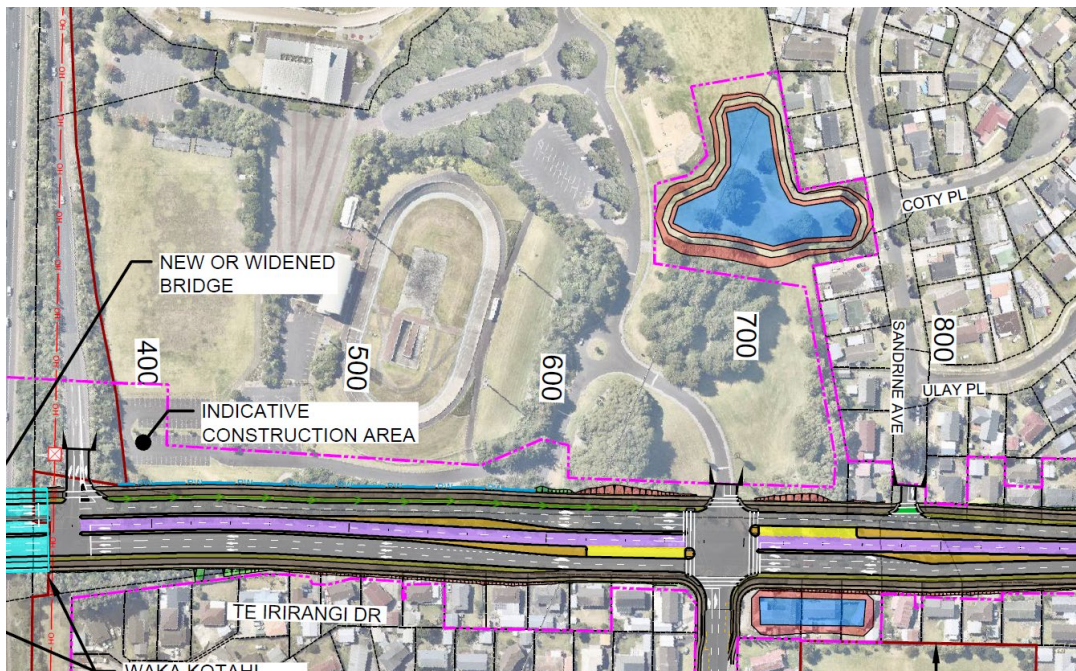


Figure 16: Manukau Sports Bowl – NoR areas

- 10.23 The area of land proposed to be designated within the Manukau Sports Bowl is identified within the Masterplan as both the location of a children’s hub including a playground, splash area, and nature playground and amenity planting. However, more significantly, this area is also the land identified as suitable for development anticipated as a funding source to enable wider development of the park.
- 10.24 This area was chosen for development due to the favourable residential edge and because the remainder of the site is shown to be able to accommodate the open space development needs of the community. The impact of the designated area is that the overall development of the park needs to be reconsidered. This is because the design and functional aspects are interrelated and interconnected, and the Masterplan was not prepared on the basis that significant areas of land would be occupied by stormwater devices to serve the A2B project.
- 10.25 The Sandrine Avenue entrance is identified in the Masterplan as an entrance which can be improved. The proposed stormwater device area would almost completely occupy the entrance leaving very little area for an entry path. An entry path would be squeezed against the edges of the pond and as such, would be constrained and would likely result in poor CPTED outcomes. The opportunity to improve the street edge condition of the park as this location would effectively be lost.
- 10.26 The supporting Social Impact Assessment acknowledges the “...extensive redevelopment plans for the Manukau Sports Bowl...”<sup>12</sup> and acknowledges ‘Fear and aspirations’ as moderate adverse effects upon directly affected landowners.<sup>13</sup>
- 10.27 The directly affected landowner in this case is Auckland Council. The affected community is described to experience:

*“Potential negative impacts associated with fear of disruption to local community character, and perceptions about potential long term changes to the fabric of the community, particularly in combination with other potential construction activity such as the Eke Panuku redevelopment of the Manukau Sports Bowl ...”<sup>14</sup>*

<sup>12</sup> VOLUME 4 Airport to Botany Social Impact Assessment December 2022. Version 1. Pg 25

<sup>13</sup> VOLUME 4 Airport to Botany Social Impact Assessment December 2022. Version 1. Pg 119

<sup>14</sup> VOLUME 4 Airport to Botany Social Impact Assessment December 2022. Version 1. Pg 119

- 10.28 I would expand upon the assessment to also acknowledge that local communities may feel fear, anxiety, distrust, and disappointment that the Manukau Sports Bowl cannot be developed in accordance with the adopted Masterplan which was developed with extensive consultation. The community's reasonable expectation, that their input was valued and that the adopted Masterplan would be delivered, would not be fully met.
- 10.29 The imposition of the NoR area by Auckland Transport within the Manukau Sports Bowl may also be perceived to erode the standing of the Ōtara-Papatoetoe Local Board and cause reputational damage to the council overall.
- 10.30 The proposed designation on Manukau Sports Bowl limits Council's ability to implement any upgrades or improvements within the designated area. As explained, the impact extends to delivery of the wider design, and impacts upon the identified development and funding option.
- 10.31 Mitigation has not been offered. Parks Planning is not able to support the proposed designation within the Manukau Sports Bowl due to the impact it will have upon the intended use and development of the park.
- 10.32 It is recognised during the design and construction phases the Requiring Authority will acquire the land by negotiation or via the Public Works Act. This may involve an agreement to replace or purchase existing facilities and/or land. However, future land deals do not address the route protection phase effects which will occur until the designation is given effect to.
- 10.33 Additionally, in an example such as the Manukau Sports Bowl, monetary compensation for lost land does not provide council a realistic opportunity to purchase adjacent land. It is unlikely that lost land would not be able to be replaced contiguously with the affected park. The land and development opportunities lost at this important open space would not be replaced.
- 10.34 Nevertheless, there remains opportunity for the Requiring Authority to work with the council to develop an "Integration Framework Plan" comparable to the process and outcomes achieved for Hayman Park. Should conditions be proposed which would require the collaborative development of a framework plan for the Manukau Sports Bowl, and bottom-line outcomes in terms of provision and design, I may be able to reconsider whether the proposed designation can be supported from a Parks Planning perspective.
- 10.35 The intent of a potential condition would be for the development of a framework plan for the Manukau Sports Bowl which would provide for the expected development of the parks whilst also addressing the stormwater management needs of the parks and the A2B project.
- 10.36 The preference of Parks Planning is that the Requiring Authority do not seek to occupy large areas of land within the Manukau Sports Bowl for stormwater management purposes.
- 10.37 A potential limiting factor of locating stormwater infrastructure on the Manukau Sports Bowl is the underlying 'recreation reserve' classification. It is unclear how the activity would be considered consistent with the statutory purpose of the reserve. Whilst the reserve currently contains stormwater areas, the proposal would require a much larger area of the reserve for stormwater management, only to the benefit of the Requiring Authority, and at the cost of permanent loss of land intended and classified for recreation purposes.

### **Hayman Park**

- 10.38 Hayman Park is a large (10 hectare) tree-lined suburban park near Manukau Town Centre, and adjacent to the Manukau bus and train stations. The park has sealed accessible paths around the perimeter and past the pond in the middle of the park. Access from Davies and Ronwood avenues, and Lambie Drive.
- 10.39 Hayman Park contains a large playground, natural play space, toilets, skate park, basketball court, picnic tables and seating, bike stands, and drinking fountains are inside the park.





Figure 17: Hayman Park – GIS Aerial

- 10.40 Public parking is located along Davies Avenue which has been developed with a landscaped median including pedestrian access and a wide plaza type connection to Manukau central to the east. Limited public parking is available on Ronwood Avenue.
- 10.41 The eastern boundary of the park is flanked by Manukau Station.
- 10.42 The NoR area is located alongside the Lambie Drive and Davies Avenue frontages and returns along Ronwood Avenue.
- 10.43 Construction is likely to result in restricted access to Hayman Park. The project will result in permanent changes to the park interface with surrounding streets, and significantly to Davies Avenue which provides the pedestrian connection to east.
- 10.44 Proposed amendments to the UDLMP and CTMP and SCEMP conditions would mitigate these concerns.

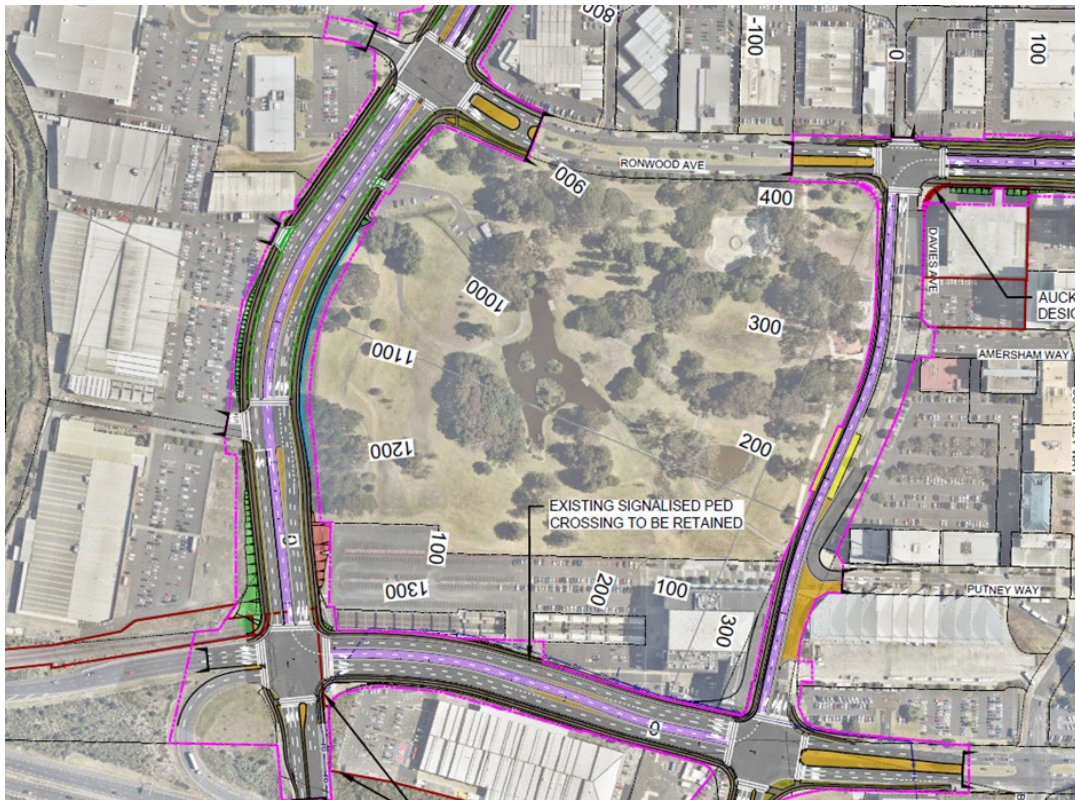


Figure 18: Hayman Park – NoR areas

- 10.45 Pre-lodgement, the intention of the requiring authority was to designate a central area for stormwater purposes. Following a successful collaboration process between council, Eke Panuku and the Requiring Authority a draft “Hayman Park Integration Framework” has been developed (March 2023).
- 10.46 The framework provides direction for how can be developed to balance recreational, urban, transport and stormwater functions. The result of this work is that the extent of the NoR land is only around the edges rather than within the central area of the park.
- 10.47 The Hayman Park Integration Framework is available as a potential model to address the unsupported outcomes of the NoR at the Manukau Sports Bowl.
- 10.48 Due to the limited extent of NoR area within the park, and confidence that the outcomes will be achieved via a collaborative process, the effects of the NoR on Hayman Park are assessed to be acceptable.

**Puhinui Domain (Ōtara-Papatoetoe Local Board)**

- 10.49 Puhinui Domain, is a linear and largely internalised park, located largely between Puhinui Road and Brett Avenue. It has a short road boundaries and entrances at all sides, connecting to Plunket Avenue, Brett Avenue (x2), Grayson Avenue (x2), Cavendish Drive and Puhinui Road.
- 10.50 North of Brett Avenue, the reserve follows a narrow band of land to Puhinui Avenue and a ninety-degree access to Grayson Avenue. The park contains paths from the entrances, a central pedestrian bridge, and a car park at one of the Brett Avenue frontages.
- 10.51 The reserve has a passive recreation and water conveyance function. Due to the lack of wide road frontages, approximately half adjoining commercial land uses and narrow accesses the park is likely to suffer from poor passive surveillance and may have safety issues, or people may experience perceptions of safety issues.

10.52 A concrete lined stormwater channel/stream is oriented north-south between Puhinui Road and Cavendish Drive.

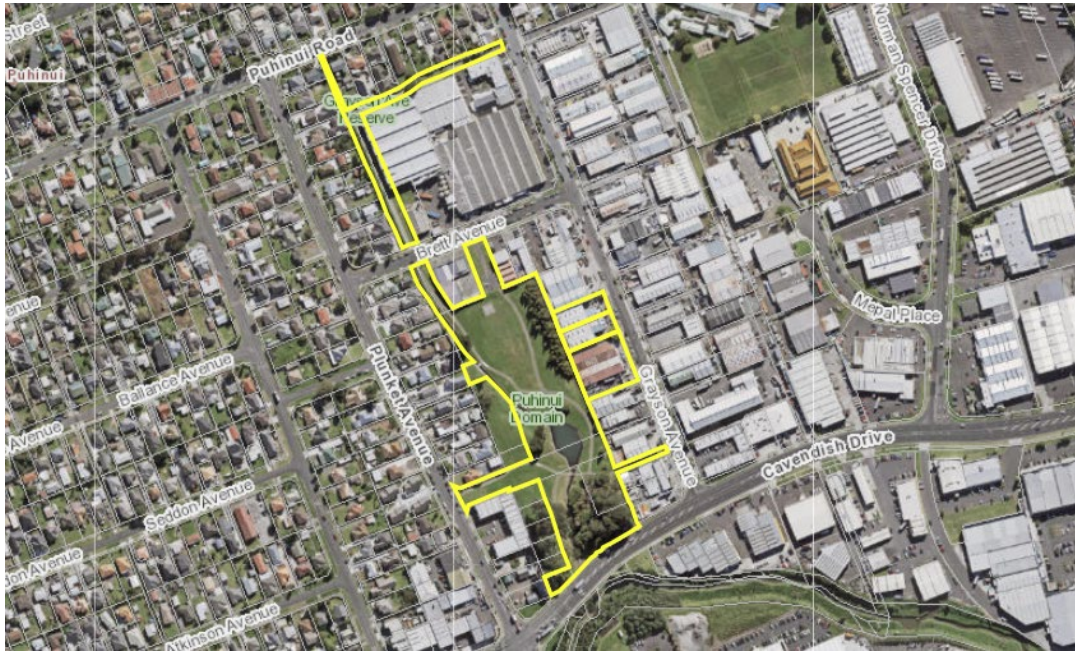


Figure 19: Puhinui Domain– GIS Aerial

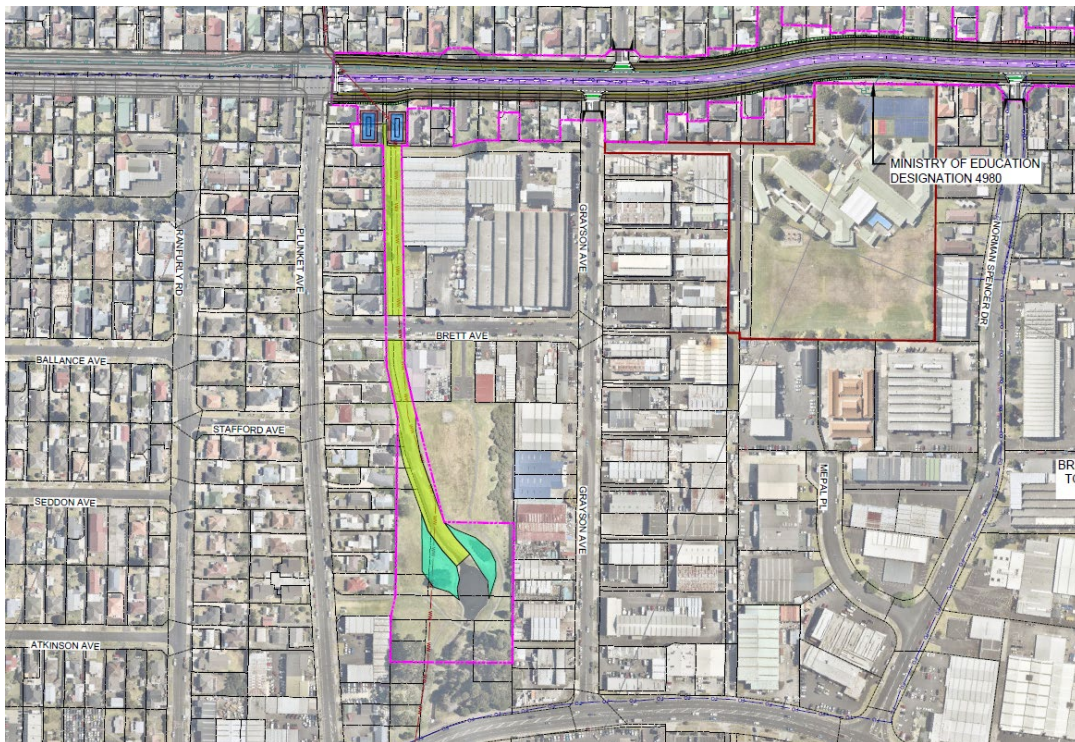


Figure 20: Puhinui Domain – NoR areas

10.53 The proposal is to use and develop Puhinui Domain for stormwater management purposes, including the naturalisation of the existing concrete lined channels and a larger pond area at the southern end.

10.54 Council may wish to develop the park as a local destination in response to significant growth planned around Manukau Central. The location and extent of any development is not certain but could only occur outside of the designated area. The recommendation to expand the scope of the proposed s176 condition would apply in this case and allow the council to develop small scale facilities, such as a playground, without requiring permission.

10.55 A route over the restored stream would provide people with alternative routes and therefore improve safety outcomes. A condition requiring that outcome in relation to Puhinui Domain is recommended.

**11.0 NOR conditions assessment (amended February 2023)**

General conditions

Condition 3. Project Information

<b>3.</b>	<p><b>Project Information</b></p> <p>(a) A project website, or equivalent virtual information source, shall be established within 12 months of the date on which this designation is included in the AUP. All directly affected owners and occupiers shall be notified in writing once the website or equivalent information source has been established. The project website or virtual information source shall include these conditions and shall provide information on:</p> <ul style="list-style-type: none"> <li>(i) the status of the Project;</li> <li>(ii) anticipated construction timeframes;</li> <li>(iii) contact details for enquiries;</li> <li><b>(iv) <u>the implications of the designation for landowners, occupiers and business owners and operators within the designation;</u></b></li> <li>(v) a subscription service to enable receipt of project updates by email; and</li> <li>(vi) how to apply for consent for works in the designation under section 176(1)(b) of the RMA.</li> </ul> <p>(b) At the start of detailed design for a Stage of Work, the project website or virtual information source shall be updated to provide information on the likely date for Start of Construction, and any staging of works.</p>
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11.1 The updated condition includes:

*“(iv) the implications of the designation for landowners, occupiers and business owners and operators within the designation;”*

11.2 This amendment is supported as it would require the Requiring Authority to understand the activities and consequent required access at open spaces, and report how these would be affected.

Condition 6. Network Utility Operators (Section 176 Approval)

<b>6.</b>	<p><b>Network Utility Operators (Section 176 Approval)</b></p> <p>(a) Prior to the start of Construction Works, Network Utility Operators (including Auckland International Airport Limited) and <b>Auckland Council</b> with existing infrastructure <b>and/or park facilities</b> located within the designation will not require written consent under section 176 of the RMA for the following activities:</p> <ul style="list-style-type: none"> <li>(i) operation, maintenance and urgent repair works;</li> <li>(ii) minor renewal works to existing network utilities <b>and/or park facilities</b> necessary for the on-going provision or security of supply of network utility <b>and/or park facility</b> operations;</li> <li>(iii) minor works such as new service connections; and</li> <li>(iv) the upgrade and replacement of existing network utilities <b>and/or park facilities</b> in the same location with the same or similar effects as the existing utility <b>and/or park facility</b>.</li> </ul> <p>(b) To the extent that a record of written approval is required for the activities listed above, this condition shall constitute written approval.</p>
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11.3 The effect of the NoR and designation is that council cannot upgrade or develop land within the designated area of land without the prior written consent of the requiring authority.

11.4 The council needs to be able to improve and upscale service provision within parks to provide for needs of communities, especially with respect to population growth and changes to the needs of the communities.

11.5 Uncertainty about the degree to which any permission may be withheld or granted with respect to works within the designation is of significant concern with respect to facilities which need to be

upgraded and developed over-time to provide for the needs of communities for both active and passive recreation.

- 11.6 The amended condition is supported insofar as it offers a level of permitted development within the designated land area. However, the scope of work permitted under the condition is subject to interpretation, particularly with respect to clause 6(a)(iv).

*Prior to the start of Construction Works ... Auckland Council with ... existing park facilities located within the designation will not require written consent under section 176 of the RMA for the following activities: ... (iv) the upgrade and replacement of existing ... park facilities in the same location with the same or similar effects as the existing ... park facility.*

- 11.7 Clarification of the intended scope of the term 'park facilities' is sought. In my interpretation, parks facilities would mean any constructed aspect of a park, which may range from open grassed areas to buildings.
- 11.8 The preference of Parks Planning is that the scope is not limited, and if so, that the term 'parks' is applied as an all-encompassing term, replacing the term 'parks facilities'. If so, undeveloped areas of land, such as vegetated areas, would be within scope.
- 11.9 If the intention that the scope is limited to specific facilities within a park, then clarity of what that means is necessary for interpretation. Application of the condition also relies upon the interpretation of "...in the same location with the same or similar effects ... as the existing park facility."
- 11.10 It is unclear how 'effects' would be considered in this context. Clarity of intent and clear drafting is warranted.
- 11.11 To address this matter it is recommended that the requiring authority provide a condition which provides a blanket consent to allow for the designated parks areas to be upgraded and developed as the council see fit.
- 11.12 It is also recommended that the scope of "upgrade and replacement" and "in the same location with the same or similar effects as the existing park facility" be more clearly described to provide more certainty in application.

**Pre-construction Conditions**

Condition 7. Outline Plan

7.	<p><b>Outline Plan</b></p> <p>(a) An Outline Plan (or Plans) shall be prepared in accordance with section 176A of the RMA.</p> <p>(b) Mana Whenua shall be invited as partners to participate in the preparation of an Outline Plan (or Plans).</p> <p>(c) Outline Plans (or Plan) may be submitted in parts or in stages to address particular activities (e.g. design or construction aspects), or a Stage of Work of the Project.</p> <p>(d) Outline Plans shall include any management plan or plans that are relevant to the management of effects of those activities or Stage of Work, which may include:</p> <ul style="list-style-type: none"> <li>(i) Network Utilities Management Plan;</li> <li>(ii) Construction Environmental Management Plan;</li> <li>(iii) Construction Traffic Management Plan;</li> <li>(iv) Construction Noise and Vibration Management Plan;</li> <li>(v) Urban and Landscape Design Management Plan;</li> <li>(vi) Historic Heritage Management Plan; and</li> <li>(vii) Ecological Management Plan.</li> </ul>
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- 11.13 It is recommended that the Development Response Management Plan (DRMP) be added to the list of plans.

Condition 10. Stakeholder Communication and Engagement Management Plan (SCEMP)

10.	<p><b>Stakeholder Communication and Engagement Management Plan (SCEMP)</b></p> <p>(a) A SCEMP shall be prepared <u>in consultation with stakeholders, community groups and organisations</u> 18 months prior to the Start of Construction for a Stage of Work. The objective of the SCEMP is to identify how the public and stakeholders (including directly affected and adjacent owners and occupiers of land) will be engaged with prior to and throughout the Construction Works. To achieve the objective, the SCEMP shall include:</p> <p>(i) the contact details for the Project Liaison Person. These details shall be on the Project website, or equivalent virtual information source, and prominently displayed at the main entrance(s) to the site(s);</p> <p>(ii) the procedures for ensuring that there is a contact person available for the duration of Construction Works, for public enquiries or complaints about the Construction Works;</p> <p>(iii) details of opportunities to strengthen the relationship between Mana Whenua, key stakeholders and the wider community;</p>
	<p>(iv) a list of stakeholders, <del>organisations (such as</del> community groups, <u>organisations facilities</u>) and businesses who will be engaged with;</p> <p>(v) identification of the properties whose owners will be engaged with;</p> <p>(vi) methods and timing to engage with landowners whose access is directly affected;</p> <p>(vii) methods to communicate key project milestones and the proposed hours of construction activities including outside of normal working hours and on weekends and public holidays, to the parties identified in (iv) and (v) above; and</p> <p>(viii) linkages and cross-references to communication and engagement methods set out in other conditions and management plans where relevant.</p> <p>(b) Any SCEMP prepared for a Stage of Work shall be submitted to Council for information ten working days prior to the Start of Construction for a Stage of Work.</p>

- 11.14 The purpose of the SCEMP is to identify how stakeholders will be communicated with. The condition does not contain any mechanism to ask stakeholders how they want to be communicated with or how matters raised would be responded to.
- 11.15 Due to the scale of impact upon parks and recreation and the council's wider responsibility to represent the interests of community and provide recreation outcomes, in my view, council should have a mechanism to review and provide feedback to the SCEMP within that scope and be provided adequate time to do so.
- 11.16 The composition of activities and groups who use the affected parks in the future at the time of design and construction cannot be predicted now. The council is best placed to advise the Requiring Authority on these matters to ensure that the SCEMP is effective. This information should also inform the CTMP as council (maintenance) and different users need access to parks at different times.
- 11.17 In post-notification correspondence the Requiring Authority proposed an amendment to the SCEMP condition to include a requirement to consult *"...with stakeholders, community groups and organisations 18 months prior to the Start of Construction for a Stage of Work"*.<sup>15</sup>
- 11.18 This amendment is supported insofar as it will require an adequate period for consultation with council and affected community groups. However, the fundamental purpose of the plan is limited as it does not require any outcome except for identifying how people will be communicated with.
- 11.19 The Social Impact Assessment report contains a series of recommendations with respect to community and stakeholder engagement<sup>16</sup>:
- "It is recommended a Community and Stakeholder Engagement Strategy be developed for the project and include strategies that focus on:*
- *Maintaining the current good relationships between Auckland Transport and Waka Kotahi and the community, particularly directly affected landowners;*
  - *Establishing contact with community members and landowners and community stakeholders as new issues arise;*
  - *Disseminating information to, and having discussions with, the community and stakeholders on issues raised;*

<sup>15</sup> SGA section 92 response table

<sup>16</sup> VOLUME 4 Airport to Botany Social Impact Assessment December 2022. Version 1. Pg 51-52

- *Identifying and responding to issues and concerns of directly affected landowners, the community and all stakeholders;*
- *Addressing specific concerns of the community and various stakeholders on an ongoing basis;*
- *Preparing relevant documents for review by government agencies and other stakeholders;*
- *How the business community is going to be engaged during the active acquisition phase to understand businesses and help get them ready for construction.”*

11.20 The SIA recommendations noted above are generally not contained in the SCEMP condition, which is focussed on identification of stakeholders and methods of communication. It is therefore recommended that the condition be amended to include the SIA recommendations more fully, to improve the communication process and require responses to an issues raised.

Condition 11. Urban and Landscape Design Management Plan (ULDMP)

<b>11.</b>	<p><b>Urban and Landscape Design Management Plan (ULDMP)</b></p> <p>(a) A ULDMP shall be prepared prior to the Start of Construction for a Stage of Work.</p> <p>(b) Mana Whenua shall be invited to participate in the development of the ULDMP(s) at least six (6) months prior to the start of detailed design for a Stage of Work to provide input on cultural landscape and design matters. This shall include (but not be limited to) how desired outcomes for the management of potential effects on cultural sites, landscapes and values identified and discussed in accordance with the Historic Heritage Management Plan (Condition 21) and the Ecological Management Plan (Condition 23) may be reflected in the ULDMP.</p> <p>(c) The objective of the ULDMP(s) is to:</p> <ul style="list-style-type: none"> <li>(i) enable integration of the Project’s permanent works into the surrounding landscape and urban context; and</li> <li>(ii) ensure that the Project manages potential adverse landscape and visual effects as far as practicable and contributes to a quality urban environment.</li> <li>(iii) acknowledge and recognise the whakapapa Mana Whenua have to the Project area.</li> </ul> <p>(d) The ULDMP shall be prepared in general accordance with:</p> <ul style="list-style-type: none"> <li>(i) Auckland Transport’s Urban Roads and Streets Design Guide;</li> <li>(ii) Waka Kotahi Urban Design Guidelines: Bridging the Gap (2013) or any subsequent updated version;</li> <li>(iii) Waka Kotahi Landscape Guidelines (2013) or any subsequent updated version; and</li> <li>(iv) Waka Kotahi P39 Standard Specification for Highway Landscape Treatments (2013) or any subsequent updated version.</li> </ul> <p>(e) To achieve the objective, the ULDMP(s) shall provide details of how the project:</p> <ul style="list-style-type: none"> <li>(i) is designed to integrate with the adjacent urban (or proposed urban) and landscape context, including the surrounding existing or proposed topography, urban environment (i.e. density of built form), natural environment, landscape character and open space zones;</li> <li>(ii) provides appropriate walking and cycling connectivity to, and interfaces with, existing or proposed adjacent land uses, public transport infrastructure and walking and cycling connections;</li> <li>(iii) promotes inclusive access (where appropriate); and</li> <li>(iv) promotes a sense of personal safety by aligning with best practice guidelines, such as: <ul style="list-style-type: none"> <li>A. Crime Prevention Through Environmental Design (CPTED) principles;</li> <li>B. Safety in Design (SID) requirements; and</li> <li>C. Maintenance in Design (MID) requirements and anti-vandalism/anti-graffiti measures.</li> </ul> </li> <li>(v) provides opportunities to incorporate Mana Whenua values and cultural narrative through the design. This shall include but not be limited to: <ul style="list-style-type: none"> <li>A. how to protect and enhance connections to the Māori cultural landscape;</li> <li>B. how and where accurate historical signage can be provided along the corridor;</li> <li>C. how historical portage routes will be recognised;</li> <li>D. how opportunities for cultural expression through, for example mahi toi, art, sculptures or other public amenity features will be provided;</li> <li>E. how opportunities to utilise flora and fauna with a specific connection to the area are realised where possible by: <ul style="list-style-type: none"> <li>a. preserving them in the design and maintenance of the Project; and</li> <li>b. restoring them in a manner that recognises their historical and cultural significance. For example by clustering planting to represent a lost ngahere.</li> </ul> </li> </ul> </li> </ul>
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	<p>F. how the historic and cultural significance of the Puhinui Historic Gateway is recognised; and</p> <p>G. how public access to coastal areas, waterways and open space is enhanced, where appropriate.</p> <p>(vi) provides for an integrated stormwater management approach which prioritises in the following order:</p> <p>A. opportunities for ki uta ki tai (a catchment scale approach);</p> <p>B. opportunities for net catchment benefit;</p> <p>C. green infrastructure and nature-based solutions; and</p> <p>D. opportunities for low maintenance design.</p> <p>(f) At the discretion of Mana Whenua, the matters listed in (e)(v) – (vi) shall either be incorporated into the ULDMP or prepared as a separate plan.</p> <p>(g) The ULDMP(s) shall include:</p> <p>(i) a concept plan(s) – which depicts the overall landscape and urban design concept, and explains the rationale for the landscape and urban design proposals;</p> <p>(ii) developed design concepts, including principles for walking and cycling facilities and public transport; and</p> <p>(iii) landscape and urban design details – that cover the following:</p> <p>A. road design – elements such as intersection form, carriageway gradient and associated earthworks contouring including cut and fill batters and the interface with adjacent land uses, benching, spoil disposal sites, median width and treatment, roadside width and treatment;</p> <p>B. roadside elements – such as lighting, fencing, wayfinding and signage;</p> <p>C. architectural and landscape treatment of all major structures, including bridges and retaining walls;</p> <p>D. architectural and landscape treatment of noise barriers;</p> <p>E. landscape treatment of permanent stormwater control wetlands and swales;</p> <p>F. integration of passenger transport;</p> <p>G. pedestrian and cycle facilities including paths, road crossings and dedicated pedestrian/ cycle bridges or underpasses;</p> <p>H. historic heritage places with reference to the HHMP (Condition 21); and</p> <p>I. re-instatement of construction and site compound areas, driveways, accessways and fences.</p> <p>(h) The ULDMP shall also include the following planting details and maintenance requirements:</p> <p>(i) planting design details including:</p> <p>A. identification of existing trees and vegetation that will be retained. Where practicable, mature trees and native vegetation should be retained;</p> <p>B. street trees, shrubs and ground cover suitable for berms;</p> <p>C. treatment of fill slopes to integrate with adjacent land use, streams, riparian margins and open space zones;</p> <p>D. planting of stormwater wetlands;</p> <p>E. identification of vegetation to be retained and any planting requirements under the Ecological Management Plan (Condition 23)</p> <p>F. integration of any planting requirements required by conditions of any resource consents for the project; and</p> <p>G. re-instatement planting of construction and site compound areas as appropriate.</p> <p>(ii) a planting programme including the staging of planting in relation to the construction programme which shall, as far as practicable, include provision for planting within each planting season following completion of works in each Stage of Work; and</p> <p>(iii) detailed specifications relating to the following:</p> <p>A. weed control and clearance;</p> <p>B. pest animal management (to support plant establishment);</p> <p>C. ground preparation (top soiling and decompaction);</p> <p>D. mulching; and</p> <p>E. plant sourcing and planting, including hydroseeding and grassing, and use of eco-sourced species.</p>
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11.21 The ULDMP is required to be prepared prior to construction. The condition requires involvement by Mana Whenua but does not require any process for council to participate in the development of the plan or provide feedback as a significantly affected stakeholder and landowner.

11.22 In my opinion, the council should also have a participatory role in deciding how the project integrates with the affected parks and sufficient time should be provided for this to occur.

11.23 A precedent for council to be consulted with in preparation of a management plan is in condition 21 which stipulates that the HHAMP is required to be prepared in consultation with council, HNZPT and Mana Whenua, prior to the start of construction work.

11.24 It is recommended that the condition be amended to provide the council to have a participatory role in the development of the UDLMP comparable to Mana Whenua and comparable to the council role provided for in preparation of the HHAMP.



## Condition 13. Construction Traffic Management Plan

16.	<p><b>Construction Traffic Management Plan (CTMP)</b></p> <p>(a) A CTMP shall be prepared prior to the Start of Construction for a Stage of Work.</p> <p>(b) The objective of the CTMP is to avoid, remedy or mitigate, as far as practicable, adverse construction traffic effects. To achieve this objective, the CTMP shall include:</p> <ul style="list-style-type: none"> <li>(i) methods to manage the effects of temporary traffic management activities on traffic;</li> <li>(ii) measures to ensure the safety of all transport users;</li> <li>(iii) the estimated numbers, frequencies, routes and timing of traffic movements, including any specific non-working or non-movement hours to manage vehicular and pedestrian traffic near schools or to manage traffic congestion;</li> <li>(iv) site access routes and access points for heavy vehicles, the size and location of parking areas for plant, construction vehicles and the vehicles of workers and visitors;</li> <li>(v) identification of detour routes and other methods to ensure the safe management and maintenance of traffic flows, including pedestrians and cyclists, on existing roads;</li> <li>(vi) methods to maintain vehicle access to property and/or private roads where practicable, or to provide alternative access arrangements when it will not be;</li> <li>(vii) the management approach to loads on heavy vehicles, including covering loads of fine material, the use of wheel-wash facilities at site exit points and the timely removal of any material deposited or spilled on public roads; and</li> <li>(viii) methods that will be undertaken to communicate traffic management measures to affected road users (e.g. residents/public/stakeholders/emergency services).</li> </ul>
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- 11.25 The objective of the CTMP is to avoid, remedy or mitigate, as far as practicable, adverse construction traffic effects. A CTMP is required to be prepared prior to the Start of Construction for a Stage of Work.
- 11.26 The Requiring Authority's stated commitment to provide and maintain access to open spaces during construction<sup>17</sup> is recognised, but this outcome is not required by the CTMP condition which only requires construction traffic effects to be avoided, remedied, or mitigated if practicable.
- 11.27 In addition, the condition only applies to 'construction traffic effects', meaning that other broader construction effects which affect access do not apply. For example, where a works area is barricaded or subject to general construction works, these are not 'construction traffic effects'.
- 11.28 With respect to providing access to open spaces, the scope of a CTMP is essentially limited to methods to maintain vehicle access to property and/or private roads where practicable, or to provide alternative access arrangements when it will not be. The intent of the CTMP, or any other proposed condition, does not extend to addressing actual loss of service or access during the construction period.
- 11.29 The condition caveat "*as far as practicable*" provides flexibility to not provide access. Therefore, the CTMP condition cannot ensure that access to open spaces will be provided for adequately.
- 11.30 Therefore, amendment to the CTMP condition is recommended to be consistent with Requiring Authority's stated position that (adequate) access will be maintained.
- 11.31 The CTMP is required to estimate numbers, frequencies, routes and timing of traffic movements, including any specific non-working or non-movement hours to manage vehicular and pedestrian traffic **near schools** or to manage traffic congestion (emphasis added).
- 11.32 Park uses and council servicing generates traffic, access, and parking demand comparable to schools, however at irregular intervals and frequencies. For example, different codes and competitions will need access to facilities during late afternoon and evenings. One off events or competitions may also occur.
- 11.33 The CTMP does not contain any requirement to consult with the council or affected communities in the development of the CTMP. It is unclear how the Requiring Authority would be able to accurately determine traffic and activity associated with a park without consultation with the council.

<sup>17</sup> SGA section 92 response table

11.34 In my view, council should have a mechanism to be involved in the development of a CTMP in relation to works which affect access to a park.

11.35 It is recommended that the condition be amended to require council involvement in the preparation of the CTMP in relation to open spaces, and a requirement that access must be maintained.

## **12.0 Submissions**

12.1 Submissions specifically relating to affected open spaces are limited to those made by Eke Panuku. I generally concur with the submissions and relief sought by Eke Panuku where these relate to open spaces including the Manukau Sports Bowl, Davies Avenue and Hayman Park. The concerns raised by Eke Panuku, outside of the Manukau Sports Bow, can be largely addressed by recommended amendments and additions to conditions.

## **13.0 Conclusion**

13.1 The overall objectives and intent of the project is supported by Parks Planning. The NoR within the Manukau Sports Bowl required for stormwater management of the A2B corridor is not supported. The remainder of the NoR can be supported subject to adoption of recommended amendments and additions to conditions as discussed.

**Technical memorandum for notice of requirement for Airport to Botany (A2B): Social**

To: Trevor Mackie

And to: David Wong, Senior Policy Planner, Planning Central/South, Plans and Places, Auckland Council  
Celia Wong, Senior Planner, Resource Consents – South, Plans and Places, Auckland Council

From: Robert Quigley, Director, Quigley and Watts Ltd

Date: 28 April 2023

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**1. Application details**

1.1. I am writing with respect to the notice of requirement (NoR) by Te Tupu Ngātahi Supporting Growth (the Applicant) regarding social matters for the Airport to Botany (A2B) project.

**2. Introduction**

**Qualifications and relevant experience**

2.1. My name is Robert Quigley and I am a Director at Quigley and Watts Ltd. My qualifications and experience are presented in Appendix 1.

**3. Overview and scope of technical memorandum**

3.1. The Applicant has applied for resource consents and as a requiring authority has served the Council with a NoR for the construction, operation and maintenance of A2B.

3.2. My technical memorandum considers the potential social effects of the NoR and covers the following:

- a. Outstanding issues regarding adequacy of the Applicant's SIA
- b. Comment on submissions received
- c. Suggested mitigations
- d. Overall conclusions.

**My involvement in this matter**

3.3. I was contracted by Auckland Council in August 2022 to provide social impact assessment services relevant to this project.

3.4. I participated in an Applicant-led visit of the A2B site on 11 October 2022. We bussed along the length of site and stopped at several locations.

3.5. I reviewed the Applicant's draft SIA (dated 9 October 2022) and provided feedback on 21 October 2022.

- 3.6. The applicant responded to those comments via a Microsoft Excel spreadsheet dated 14 December 2022.
- 3.7. The NoR was lodged on 9 December 2022 and along with access to all lodged documents, I had access to the Applicant's *Volume 4 Airport to Botany Social Impact Assessment* dated 9 December 2022 (SIA).
- 3.8. I carried out a completeness and adequacy review of the SIA for Auckland Council dated 19 January 2023. Auckland Council requested further information from the Applicant regarding social effects on 31 January 2023, in accordance with s 92 of the RMA. My request asked for information about 7 issues.
- 3.9. On 10 February 2023 the Applicant responded to the s92 questions.
- 3.10. The NoR was notified along with the original SIA (dated 9 December 2022) on 10 March 2023. Submissions closed on 11 April 2023.
- 3.11. Auckland Council provided me with a summary of submissions, and access to all submissions on 21 April 2023.
- 3.12. I have reviewed the Applicant's NoR and the relevant supporting information with reference to the requirements of the Auckland Unitary Plan (Operative in Part) (**AUP-OP**), to assist the preparation of the Council's reporting planner's report under s42A of the RMA.
- 3.13. To inform this technical memorandum I have reviewed the following documents:
  - a. the draft SIA (9 October 2022) and lodged SIA (9 December 2022).
  - b. Plans for lodgement (NoR 1, NoR 2, NoR 3, NoR 4a, NoR 4b)
  - c. Assessment of effects on the environment
  - d. Assessment of construction noise and vibration effects
  - e. Assessment of traffic noise effects
  - f. Urban design evaluation (Parts one to six)
  - g. Form 18 (including the proposed designation conditions) for NORs 1 ,2, 3 and 4a; and Form 18 for NoR 4b (including the proposed designation conditions)
  - h. the s 92 response from the applicant (dated 10 February 2023).
  - i. 190 submissions related to A2B.
- 3.14. I am also contracted to provide social impact assessment services regarding preparation and attendance at a hearing, if required.

#### **4. Adequacy of the Applicant's SIA**

- 4.1. My review of the draft SIA concluded that "*Overall, this is a high quality SIA. The assessment follows best practice in many areas. A few gaps remain...*" Changes to the SIA were made between the draft and lodged SIA, and several queries were resolved. Following my s92

questions, all questions were answered, and some resolved but a few issues remain. The lodged SIA was not updated at notification.

- 4.2. In summary, the SIA provides several high quality sections:
  - a. SIA methodology (Section 2); Social environment (Section 3); Social baseline (Section 4); (Literature) Review of social impacts of rapid transit projects (Section 5).
- 4.3. The SIA is supported by several large and detailed appendices:
  - a. Summary of engagement (Appendix B) (At December 2022, 85 of 475 landholders had been engaged); Significance methodology (Appendix C); Indicators of social impacts and baseline data (Appendix D); Impact assessment (Appendix E).
- 4.4. Appendix E – Impact Assessment is worth additional mention as this section provides the granular description of potential social impacts across the four geographical zones of the project. Each geographical zone is further cut by potential effects arising from planning, construction and operation. It is well laid out and provides high transparency to the potential impacts described in the SIA.
- 4.5. Section 6 of the SIA provides a succinct and high-level description of potential impacts. This is a tidy and accessible way to present this information, in a story-like format, especially given the granularity of the assessment is presented in Appendix E’s tables. Repeating the Appendix E information in text-form would be unwieldy.

#### **Remaining issues with the SIA and consequent management strategies**

- 4.6. A small number of remaining issues leave gaps which, in my opinion, are significant at a decision making level.
- 4.7. **Operational right hand turn restrictions have no proposed mitigations.** Appendix E of the SIA describes high-negative potential effects during operation for reduced property access from right hand turn restrictions. Yet Section 6 does not describe any potential mitigations. As such the high-negative potential effects projected will remain. The applicant describes how ‘... *the expected travel distance is no more than 2.5km. Over time it is considered that residents will adjust their travel patterns...*<sup>1</sup>’ This is problematic because the average trip by vehicle in New Zealand is 10km and one-third of vehicle trips are less than two km<sup>2</sup>. A 2.5km addition to vehicle travel for the potentially affected residents is therefore not trivial by any measure. But worse than that, residents travel out and back, so it can be up to 5km per round trip. Adjusting their travel patterns is the social effect we are interested in understanding. This is where people might stop doing trips or go to different places, because of the right hand turn restrictions. By saying that people will adjust over time, the applicant is effectively saying that baking in the social effect over time is OK. I have suggested an appropriate mitigation in Section 6 of this technical memorandum.
- 4.8. **Operational severance has weak mitigations.** Appendix E of the SIA describes high-negative potential effects during operation for severance. Yet Section 6 does not describe any potential mitigations. Instead, the SIA says ‘*The Urban Design Evaluation notes that to enable equitable*

<sup>1</sup> Applicant response to Auckland Council’s s92 question, note 27, page 10.

<sup>2</sup> Ministry of Transport NZ Household Travel Survey Data 2018-2021

*local connectivity and cross corridor access to commercial centres and areas of high density, especially in areas where no severance exists, further consideration during the detailed design stage should be undertaken to determine the most appropriate crossing points along the corridor.*<sup>3</sup> The ULDMP does indeed have appropriate words about walking and cycling connectivity e.g., Condition 11(e)(ii). However, this remains problematic because a connectivity assessment has not been undertaken and nor is one proposed. A connectivity assessment considers the desire lines between key destinations for active modes, and levels of service for active modes in and between key destinations. In my feedback on the draft SIA, I asked about a connectivity assessment and was told the transport assessment has dealt with that<sup>4</sup>, but the Assessment of Transport Effects has very little on desire lines or movement between key destinations for pedestrians and cyclists. Not dealing with severance now is also problematic because it effectively *kicks the can down the road*, meaning the decision makers are left with little assurance that severance will be appropriately dealt with. This is inadequate for any transport project but especially for a large transport project like A2B. Several submitters also raise severance concerns and request further work to address potential severance e.g. Kainga Ora, NoR2-76. I have suggested an appropriate mitigation in Section 6 of this technical memorandum.

- 4.9. **Operational loss of carparks has weak mitigations.** Appendix E of the SIA describes high-negative potential effects during operation for loss of carparking. Yet Section 6 does not describe any potential mitigations. As such the high-negative potential effect will remain. I requested data about the potential social effects from the loss of on-street, on-site parking and reduced property access in my s92 request. The applicant describes how on and off-street parking has been discussed during engagement and that both temporary and permanent impacts on parking will occur<sup>5</sup>. Engagement has occurred with 85 of 475 landholders<sup>6</sup>. However, the SIA provides little to no information on what this might mean from a business income, loss of land value, or way of life effect for homeowners. Discussing ‘number of carparks lost’ is not the same as discussing the potential social effects arising from that loss of carparking. Loss of carparking is a particularly contentious topic in New Zealand and so NZTA commissioned research<sup>7</sup> in 2015. The research found a lack of NZ before- and after-studies at the local and regional level. Workshops were held with relevant stakeholders in four cities and found *‘The view of workshop participants was the impact of reallocation is minor in relation to the entire central city economy, but potentially significant for a handful of businesses close to the project area. There is a need to collect evidence of the impact on business income once projects are completed to verify any such assumptions, and to determine if the effect on adjacent businesses is in fact positive or negative.’* The NZTA research discusses the few situations where business revenue has been studied internationally<sup>8</sup>, but those situations are quite different from A2B where the land is being used for additional bus and cycle lanes. Unfortunately, eight years on no

<sup>3</sup> Section 6.6.2, SIA (page 58 to 59)

<sup>4</sup> Row 57, Excel Spreadsheet, Response by Applicant to Auckland Council’s comments on the draft technical assessments

<sup>5</sup> Reference numbers 24 and 26 (page 10), Auckland Transport’s s92 response to Auckland Council

<sup>6</sup> Row 49, Excel spreadsheet, Applicant’s response to Auckland Council’s comments on draft assessments. December 2022

<sup>7</sup> Powell, Bowie, Halsted et al, (2015). The costs and benefits of inner city parking vis a vis network optimization. Wellington: NZTA.

<sup>8</sup> Powell, Bowie and Halsted et al, (2015). Page 53.

further research (before and after evaluations) has been conducted on this topic in Auckland or elsewhere, despite this being one of the main findings of the 2015 research.

- 4.10. The Applicant describes how on-site parking that is permanently taken will be addressed as part of the compensation via the Public Works Act (1981)<sup>5</sup>. But the act only pays market value for the land and does not compensate for projected loss in profits which is one of the main arguments put forward by submitters (Reference needed).
- 4.11. The applicant also argues the provision of on-street carparking can be addressed 'on a case-by-case basis at the future detailed design stage'<sup>9</sup>. Leaving individual households and businesses to deal with the Applicant, one by one, at some point in the future, provides little reassurance that potential impact will be understood or appropriately addressed.
- 4.12. There is no empirical evidence on the effects of loss of carparking in a New Zealand setting, though the NZTA evidence did provide a small amount of qualitative evidence. This leaves decision makers in a difficult position. However, the construction start date for A2B is at least 15 years away, and as such, before and after research can be undertaken in the interim. The about-to-be-implemented Eastern Busway projects would be an ideal target for this research and Auckland Transport is also a consortium member in that project. I have suggested an appropriate mitigation in Section 6 of this technical memorandum.
- 4.13. **Manukau Memorial Gardens construction noise effects assessed as low.** The SIA has assessed the construction noise effects of Manukau Memorial Gardens as low. In my opinion, this underestimates the potential effect because many people visit the Gardens for funerals, memorials and family-events. It would not take much construction noise to disrupt these moments. While the Noise Assessment does not discuss this issue in detail, it does acknowledge it with one line that recommends '*any contractor coordinates work times with the cemetery management to avoid sensitive times such as during funerals or memorials*' (Section 9.1). This is an appropriate response but has also not found its way into A2B's noise conditions. I have suggested an appropriate mitigation in Section 6 of this technical memorandum.
- 4.14. **Mitigations proposed in the SIA are not carried through into A2B's conditions.** The most important issue regarding social matters is not within the SIA, but instead the mitigations proposed in the SIA are not carried through into A2B's conditions. Those mitigations which are carried through to the conditions are carried through in name only and are likely to be ineffectual compared to what was recommended in the SIA. On questioning, the Applicant says this is because the recommendations are *integrated across the proposed conditions and intended to be read as a whole*<sup>10</sup>. However, after reading the whole set of conditions, most are not included. This is poor practice, especially given the number of extreme, high and medium negative potential social effects identified in the SIA. I have suggested an appropriate mitigation in Section 6 of this technical memorandum.
- 4.15. **Business effects are considered and assessed as high.** As described earlier, the SIA does a fair job of considering the breadth of potential social issues arising from effects. This is mostly true for potential social effects for businesses (SIA, Section 6.2.2). The SIA identifies several extreme-negative findings relevant to businesses in Appendix E e.g., pages 120, 144, 145 and 149. However, business submissions describe these potential effects in detail, and far more

<sup>9</sup> Reference number 25 (page 10) and 27 (page 11), Auckland Transport's s92 response to Auckland Council

<sup>10</sup> Reference number 25 (page 10), Auckland Transport's s92 response to Auckland Council

businesses than are named in the SIA have submitted about a wider range of potential effects than the effects described in the SIA. So, while the SIA has identified some of the potential effects, other effects, on other businesses, are plausible. This reinforces the need for an agile and comprehensive response in any conditions.

**Limited engagement has been undertaken**

4.16. As at December 2022, 85 of 435 directly affected landowners directly engaged with the Applicant about the project after receiving letters or flyers. This does not include the many landowners not directly affected but who will still likely be significantly affected e.g., those households no longer shielded from road noise as houses in front are demolished. Such people did not receive letters or flyers. Compared with other SIA undertaken by the Applicant, e.g., engagement on the EB2 and EB3R busway, this is a vast improvement. However, the volume and nature of submissions strongly show that the community, both directly affected and others indirectly affected, are not impressed with the quantity and quality of engagement e.g., Arena Williams (MP), NoR2-74; Heather Haylock, NoR3-26. Many submitters do not have enough information about what might happen to their directly affected property and have asked multiple questions e.g., Litao Chen, Nor1-03; or are making assumptions about the future road layout due to the low level of detailed information they have access to e.g. Kindercare Dannemora, NoR1-19). Others living on the route are unclear if their properties will be taken or not e.g., Aisea Sasalu, NoR1-11; Colin Robinson, NoR3-03. Overall, the submitters are correct in that the scale of the project was difficult to discern from letters or flyers sent with the ‘blue line route’ markings. Engagement with the community has been undertaken after most decisions were taken. The numbers directly engaged are a low proportion of those directly affected, and even lower when indirectly affected are considered. The communities affected include migrants, people with English as a second language and vulnerable people, for whom the engagement has been poorly understood. As such, substantial efforts will now be required to appropriately communicate with the community, and for many in the community, trust in the Applicant will have already been lost.

**Conclusion regarding adequacy of the SIA**

- 4.17. Overall, the Applicants SIA is of a high quality, but a small number of features exist that are in my opinion, of interest to decision makers:
- a. There are no mitigations proposed in the SIA (or conditions for the project) to address the potential high-negative effects arising from:
    - i. operational severance
    - ii. right hand turn restrictions
    - iii. loss of carparking (on-street)
    - iv. loss of carparking (on-site).
  - b. The SIA has assessed the social effects of construction noise on Memorial Gardens as low, yet in my opinion that is incorrect.
  - c. There is no Bus Rapid Transit stop at Manukau Memorial Gardens whereas in my opinion there should be.



- d. Limited engagement has been undertaken and rectifying this lack of engagement will now be challenging.
- e. However, the most important social matter is not in the SIA, but instead A2B's conditions do not follow the recommendations made by the SIA. As such, the potential extreme-negative and high-negative social effects arising from the planning, construction and operation of A2B are unlikely to be addressed.
- f. Because Manukau Memorial Gardens does not have a Bus Rapid Transit stop allocated, the lack of a stop at this destination has not been included in the SIA (understandably). However, in my opinion, the Manukau Memorial Gardens are a site of regional significance. The options assessment has ruled out a stop at the Manukau Memorial Gardens because of the low density of housing. Such a metric is not relevant for a regional specific site such as the Memorial Gardens which attracts people from all over the region, and as such the rationale for excluding a stop is weak.

## **5. Summary of submissions received.**

- 5.1. Counting submissions and allocating to which NoR has proved difficult as submitters were not always specific about which NoR their submission related to, and many submissions related to multiple NoRs. Many submitters did not explicitly say whether they opposed, supported or were neutral to the proposal. As such, approximately 190 submissions were received across the five NoRs. Most were either opposed to the proposal, or did not explicitly oppose the proposal but wished the NoR be withdrawn or approved only with significant amendments. For example, for 82 submissions relevant to NoR 2:
  - a. Five supported the proposal
  - b. Two were neutral, subject to relief sought
  - c. Forty did not explicitly state opposition or support, but most of these submitters either wanted the NoR withdrawn, sought changes to conditions, or sought relief
  - d. Thirty-five explicitly opposed the proposal.
- 5.2. Most submitters who supported the proposal had personal and/or community-level concerns. For example, for the five submitters supporting NoR 2, these are the key themes:
  - a. Support, but only with conditions requiring no construction effect to their business site and no adverse effects on construction- or long term-parking (Big Developments Ltd)
  - b. 'Losing our first home is really devastating', concern about effect on market value of property, concern about the long lapse period, concern about the compensation process (Sandeep Kumar)
  - c. Adverse effects on stormwater on the Manukau Sports Bowl site, adverse effects on Hayman Park, adverse effects on ability to deliver regeneration plans and future streetscape plans, traffic construction effects on Hayman Park, lack of safe crossings from the surrounding city centre to Hayman Park including at Amersham Way, loss of mobility parking spaces (Eke Panuku Development Auckland)

- d. Late engagement with community members, difficult language and large documents were hard for people to engage with, short submission period, long lapse period (Arena Williams, Member of Parliament)
- e. Are leaving the area permanently anyway (Maki and Makea Tereroa).

5.3. Summarising the key themes of those against the proposal or neutral (with concerns) is challenging given the number and range of themes and this is a snapshot only:

a. Planning

- i. A lapse period of 15 years being too long and creates uncertainty for homeowners and businesses about their future (e.g., Tunicin Investments Ltd, NoR4a-01; Business Manukau, NoR2-38)
- ii. Anxiety about the potential loss of homes and businesses (e.g., Rawandeep Kaur, NoR2-06; Business Manukau, NoR2-38)
- iii. Existing consented plans for development of business sites, hotels and apartment buildings are significantly impacted (SPG Manukau Ltd NoR2-09; Murdoch Newell Management Ltd, NoR02-17). This has the potential to impact financially on the owner, and the consequent jobs arising from development and operation.
- iv. Late engagement with directly affected community members, little detail on the scale or detail of A2B and therefore people could not realise how it might affect them, less engagement with community members who are not directly affected but who will be significantly affected; the difficult language and large documents were hard for people to engage with, short submission period (Arena Williams, NoR2-74; Heather Haylock, NoR53).

b. Construction and operation concerns:

- i. Property acquisition and removal leading to new noise effects on previously shielded homes. These homes have not been included in letters informing about the proposal or inviting submissions (Heather Haylock, NoR2-53)
- ii. Property acquisition leading to direct loss of businesses or business disruption and costs (Business Manukau, NoR2-38; Michael Sheridan, NoR2-40; Paul Street, NoR1-45; Alan Steele, NoR4a-03) and consequent loss of employment, livelihoods and small businesses who serve local communities.
- iii. Property acquisition leading to direct loss of family homes and consequent anxiety about the future and sadness of the loss (e.g., Simran Krishna, NoR2-14; Balwinder Singh, NoR1-05; Wei Chao Kuan, NoR3-09).
- iv. Temporary and permanent loss of on-street and on-site carparks (including mobility parking) for households, apartment buildings and businesses (e.g., Monish Prasad, NoR2-08; SPG Manukau Ltd NoR2-09; Lynette Henderson, NoR2-12; Legends Property, NoR2-18; Business Manukau, NoR2-38; Michael Sheridan, NoR2-40; Auckland Body Corporate, NoR2-50; Michelle Hira, NoR3-19). Households describe the effect on their way of life, and businesses describe potential effects on customers access and consequent viability of their business.

- v. Traffic congestion and truck/heavy vehicle movements and consequent time-loss, avoidance of area, safety and amenity effects (Business Manukau, NoR-38; Auckland Body Corporate, NoR2-50; Ministry of Education, NoR2-78).
- vi. Construction closure of street entrances/exits, changes to local roads and through access and consequent decrease in access, reduced customer access, increase in safety risk for customers/households from far greater use of remaining access points, for both residential, businesses and community organisations (SPG Manukau Ltd NoR2-09; Business Manukau, NoR2-38; Michael Sheridan, NoR2-40; Auckland Body Corporate, NoR2-50). Submitters describe reduced safety, households describe the altered movements they would need to make and reduced access (Alice Lopez, NoR2-33), and businesses are concerned for a loss in custom and consequent viability.
- vii. Loss of roadside presence and signage and consequent loss of business custom, and business viability (Michael Sheridan, NoR2-40). Also, landlords are concerned with business leaseholders terminating their tenancy.
- viii. Effects on access to business loading docks (Legends Property, NoR2-18; Business Manukau, NoR-38; Michael Sheridan, NoR2-40). Landlords and businesses are concerned with the efficient running of their business and consequent viability.
- ix. Reduced property values (Pengxian Huang, NoR2-02; Alice Lopez, NoR2-33). Participants are concerned about market value compensation they will be offered when they don't want to sell or move.
- x. Right hand turn restrictions on businesses and households (SPG Manukau Ltd NoR2-09; Business Manukau, NoR-38). Businesses are concerned about the reduced access by customers and households are concerned about the increase in travel (up to 5km per round trip) required to do simple/short trips (Heather Haylock, NoR3-26). They fear consequences for their property value as well.
- xi. Construction noise, vibration, dust and amenity loss, for both residences, schools and businesses (Legends Property, NoR2-18; Business Manukau, NoR2-38; Kainga Ora, NoR2-76; Ministry of Education NoR2-78). Businesses are concerned about the amenity of their business from the perspective of a customer, say dining, or browsing, or avoiding the area altogether. Homeowners are concerned about sleep effects, physical health effects from noise and dust, and mental health effects.
- xii. Increased risk of flooding, especially after the January 2023 flooding in this area of Auckland (Duncan and Sandra Loudon, NoR2-13; Heather Haylock, NoR3-26; Kainga Ora, NoR2-76). Submitters are concerned about the risk of further damage and financial loss to their business.
- xiii. Operational traffic noise, vibration, dust on consequent amenity loss and potential health effects, for both residences and businesses (Legends Property, NoR2-18; Business Manukau, NoR2-38; Kainga Ora, NoR2-76). Businesses are concerned about the amenity of their business from the perspective of a customer, say dining, or browsing, or avoiding the area altogether. Homeowners are concerned about sleep effects, physical health effects from noise and dust, and mental health effects.

- xiv. Concerns regarding severance of town centres and surrounding residential areas, especially pedestrian, cycling and vehicle connections across the thoroughfares (Business Manukau, NoR2-38; Heather Haylock, NoR2-53; Kainga Ora, NoR2-76; Gordon Barthow, NoR2-81) and requesting a pedestrian and cycling severance study upfront.

## 6. My assessment of required mitigations and conditions

### SIA recommendations not carried across to A2B's conditions

- 6.1. The Applicant has had good advice from the SIA regarding potential social effects and how to respond to these via several management plans and policies, as named in the SIA:
  - a. Community and Stakeholder Engagement Strategy; Development Response Plan; Community Health and Wellbeing Strategy; Property Management Strategy; Social Outcomes Strategy; Good neighbour policy; Respite and relocation policy.
- 6.2. However, despite my questioning at the draft SIA stage and via s92 questions, the recommendations proposed in the SIA have not been adequately included in A2B's conditions. The differences between the SIA's recommendations and the conditions are stark and are described in the paragraphs and tables below.
  - a. For Community and Stakeholder Engagement (Table 1 below), A2B's conditions are highly transactional, and most of the text is a list of items to be included within the SCEMP. The SIA on the other hand is active (not passive) with phrases like 'help them get ready for construction', as well as actively seeking to '*identify and respond to issues*' and collaborative in design via '*facilitate the ongoing involvement of stakeholders and community groups and organisations in the development of potential mitigation strategies.*' The purpose of the SIA's Community and Stakeholder Engagement Strategy is fulsome in comparison to the weak purpose of the SCEMP's condition.
  - b. For the Development Response Plan (Table 2 below), again the SIA presents a comprehensive and coordinated approach. It proposes the Applicant would work closely with the community in developing the plan, gather baseline data, and address the potential effects via multiple approaches including an assistance package, advocacy, leadership, coordination and mental health support. The conditions are pale in comparison and are highly unlikely to be able to proactively deal with the potential extreme-negative and high-negative effects identified. The existing conditions are also highly likely to further aggravate the community. Development Response Plans typically focus on businesses, yet community groups and residents should not be left out of Development Response Plans. The potential effects which they are exposed to are also dynamic and require an agile solution. Many submitters referred to the need for a Development Response Plan and specifically cited the SIA (Business Manukau, NoR-38), not the conditions.
  - c. For the Community Health and Wellbeing Strategy (Table 3 below), Property Management Strategy (Table 4 below), Social Outcomes Strategy (Table 5 below), Good Neighbour Policy (Table 6 below), and the Respite and relocation policy (Table 7 below), there are little to no equivalents in the conditions. Unfortunately, it is clear the Applicant does not intend to address the potential extreme-negative and high-negative social effects identified in the SIA, or engage with the community on these issues in a meaningful way.

Table 1. SIA recommended mitigations compared with Project Conditions:  
Community and stakeholder engagement.

SIA's Community and Stakeholder Engagement Plan (p51-52, SIA)	Project conditions: Stakeholder Communication and Engagement Plan. Condition 11 (NoRs 1, 2, 3, 4a)
<p><b>Purpose/Focus:</b></p> <ul style="list-style-type: none"> <li>To understand the different groups that will interact with the Project and to establish how and when they will be engaged, and by whom</li> <li>Maintain the current good relationships between Auckland Transport and Waka Kotahi and the community, particularly directly affected landowners</li> <li>Establish contact with community members and landowners and community stakeholders as new issues arise</li> <li>Disseminate information to, and having discussions with the community and stakeholders on issues raised</li> <li>Identify and respond to issues and concerns of directly affected landowners, the community and all stakeholders</li> <li>Address specific concerns of the community and various stakeholders on an ongoing basis</li> <li>Prepare relevant documents for review by government agencies and other stakeholders</li> <li>Include how the business community is going to be engaged during the active acquisition phase to understand businesses and help get them ready for construction.</li> </ul> <p>The strategy should include methods to facilitate the ongoing involvement of stakeholders and community groups and organisations in the development of potential mitigation strategies.</p> <p>Engagement with stakeholders and community is an important component to managing and monitoring the potential social impacts and opportunities of the Project.</p> <p><b>How:</b> The Strategy should be developed in consultation with stakeholders and community groups and organisations.</p> <p><b>When:</b> Ongoing engagement should continue during the planning stage to maintain and build relationships with the community and provide an opportunity for those new to the area to find out about the project.</p>	<p><b>Purpose/Focus:</b></p> <ul style="list-style-type: none"> <li>To identify how the public and stakeholders (including directly affected and adjacent owners and occupiers of land) will be engaged with prior to and throughout the Construction Works.</li> <li>Include details of opportunities to strengthen the relationship between Mana Whenua, key stakeholders and the wider community.</li> </ul> <p><b>How:</b> Developed in consultation with stakeholders, community groups and organisations. The SCEMP shall include:</p> <ul style="list-style-type: none"> <li>the contact details for the Project Liaison Person. These details shall be on the Project website, or equivalent virtual information source, and prominently displayed at the main entrance(s) to the site(s)</li> <li>the procedures for ensuring that there is a contact person available for the duration of Construction Works, for public enquiries or complaints about the Construction Works</li> <li>a list of stakeholders, organisations (such as community groups, organisations facilities) and businesses who will be engaged with</li> <li>identification of the properties whose owners will be engaged with</li> <li>methods and timing to engage with landowners whose access is directly affected</li> <li>methods to communicate key project milestones and the proposed hours of construction activities including outside of normal working hours and on weekends and public holidays, to the parties identified above</li> <li>linkages and cross-references to communication and engagement methods set out in other conditions and management plans where relevant</li> <li>Submitted to Council for information 10 days prior to the start of Construction for a Stage of Work.</li> </ul> <p><b>When:</b> 18 months prior to the start of construction for a Stage of Work.</p>

Table 2. SIA recommended mitigations compared with Project Conditions: Development Response Plan.

SIA's Development Response Plan (p52-54, SIA)	Project conditions: Development Response Management Plan. Condition 12 (NoRs 1, 2 & 3)
<p><b>Purpose/Focus:</b></p> <ul style="list-style-type: none"> <li>• A coordinated planning and implementation tool to mitigate the impacts of large-scale development and cumulative impact of construction activity on people, in particular businesses.</li> <li>• Appropriate assistance package. An assistance package is important to support businesses affected by projects both to help them manage impacts of construction and to help them maximise the opportunities the projects present. The more successful packages are administered by a committee/steering group comprised of members of the business community as well as the Project Team.</li> <li>• Early planning. Early planning would include analysis of businesses to establish a baseline, early business engagement and early landlord engagement to work collaboratively in preparing the Development Response Plan. Business Associations are key to this activity and the Project should also work collaboratively with them and other stakeholders including community groups and organisations in both development and implementation of the Development Response Plan to ensure appropriate mitigation measures relevant to the community. A co-design approach to this could be considered.</li> <li>• Easy access, constant communication, and agility. Provide early information and make it easy to access. Businesses will then know what to expect and when and have easy seamless access to information. Consistent and timely information is also important. Businesses can also advise which forms of communication are preferred. The business support programme, including the assistance package needs to be agile and able to make changes quickly to improve the experience for businesses. Easy access to information and constant communications can assist with this.</li> <li>• Business technical assistance. Provide proactive assistance to businesses to help them take advantage of other assistance programmes that are put in place, as well as strengthen the business overall to prepare them for long-term changes ahead.</li> <li>• Strong advocacy. Advocacy from the business community and other community-based organisations and community development organisations on behalf of the business community who look to them for support enables the Project to work with a range of organisations to provide consistent information and support to businesses. Those organisations can also then develop information for businesses.</li> </ul>	<p><b>Purpose/Focus:</b></p> <ul style="list-style-type: none"> <li>• to provide a framework to assist businesses affected by the Project to manage the impacts of construction and to maximise the opportunities the Project presents.</li> </ul> <p><b>How:</b> <i>Shall be prepared in consultation with stakeholders, community groups and organisations. The DRMP shall include:</i></p> <ul style="list-style-type: none"> <li>• A list of businesses likely to be impacted by the Project</li> <li>• A list of business associations and key business stakeholder groups that have and will be engaged through the development of the DRMP</li> <li>• Detail of the <u>methodology</u> to establish the baseline of businesses likely to be impacted by the project</li> <li>• Recommendations for measures to be undertaken to manage the impacts of Construction Works on the identified businesses</li> <li>• The contact details for the Project Liaison Person. These details shall be on the Project website, or equivalent virtual information source, and prominently displayed at the main entrance(s) to the site(s)</li> <li>• The procedures for ensuring that there is a contact person available for the duration of Construction Works, for public enquiries or complaints about the Construction Works</li> <li>• Methods to communicate key project milestones and the proposed hours of construction activities including outside of normal working hours and on weekends and public holidays, to the businesses likely to be impacted by the Project</li> <li>• a summary of any proactive assistance provided to impacted businesses</li> <li>• Identification of opportunities to co-ordinate the forward work programme, where appropriate with infrastructure providers and development agencies</li> <li>• Linkages and cross-references to communication and engagement methods set out in other conditions and management plans (e.g., the SCEMP) where relevant</li> <li>• Any DRMP prepared for a Stage of Work shall be submitted to Council for information ten working days prior to the start of construction for a Stage of Work.</li> </ul> <p><b>When:</b> 18 months prior to the Start of construction for a Stage of Work.</p>

- Leadership and Commitment. Auckland Transport as the Requiring Authority will support the development of appropriate strategies and commit to resourcing the development and implementation, including funding. Suitably qualified and experienced engagement and stakeholder management personnel will be engaged 18 months to two years prior to construction to develop, implement and monitor the Development Response Plan.
- Coordination. In some areas of the Project there could be other construction activity underway, especially within the Manukau Central associated with development plans of Eke Panuku and Westfield, and Kainga Ora development in the Clover Park area. A coordinated response, joined with other projects in the same area or nearby will provide single points of contact and consistent and coordinated information about all projects to businesses.
- Health and wellbeing. Recognise the impacts on the health and wellbeing of business owners and operators and establish appropriate support, including access to confidential and independent support services.

**How:** The frameworks start with great communication, engagement, operations planning, and bring together in a coordinated way specific strategies such as business advisory services, wayfinding, cleanliness, noise monitoring, placemaking, pedestrian access and improvements to building frontages. This can also include partnerships with local businesses, schools and community groups in the design of public art and use of space during construction.

While applied within urban commercial environments, many of the strategies (above) can be applied in residential areas as well, especially those related to communications, site management and way finding.

**When:** Prepared during the planning stage prior to construction. Implemented just prior to and during construction (in the period 18 months to two years prior to construction. It is agile and evolves during implementation to respond to what is happening at the time.

Table 3. SIA recommended mitigations compared with Project Conditions:  
Community Health and Wellbeing Strategy.

SIA's Community Health and Wellbeing Strategy (p54, SIA)	Project conditions: No equivalent
<p><b>Purpose/Focus:</b></p> <ul style="list-style-type: none"> <li>To increase resilience, reduce anxiety and frustration</li> <li><i>Focus on landowners, occupiers, business owners, and operators of land which is designated.</i></li> </ul> <p><b>How:</b> The strategy can include partnerships with support agencies, potentially local, to provide confidential and independent support to those that need it.</p> <p>The strategy can also include initiatives that ensure those directly affected by the Project know where and how to access information about the Project and who to go to in order to get the information they need.</p> <p><b>When:</b> During the period between designations being in place and construction starting.</p>	<p>No equivalent for most of the strategy. The SCEMP covers access to information, but only 18 months prior to a Stage of Work starting.</p>



Table 4. SIA recommended mitigations compared with Project Conditions:  
Property Management Strategy.

SIA's Property Management Strategy (p54, SIA)	Project conditions: Condition 7 (NoRs 1, 2, 3)
<p><b>Purpose/Focus:</b></p> <ul style="list-style-type: none"> <li>Outline the processes for managing properties that are acquired and vacated prior to construction to reduce the potential for anti-social behaviour.</li> </ul> <p><b>How:</b> This could include maintaining residential and commercial tenancies or removing buildings and enabling the land to be used by the community or others for another temporary purpose that maintains activity on the site, such as a community garden or pocket-park.</p> <p>The literature review in the SIA notes that a social worker to help with relocation of residents is helpful, as is approaching relocation on a case-by-case basis.</p> <p><b>When:</b> During the period between designations being in place and construction starting.</p>	<p>The Requiring Authority shall undertake its best endeavours to ensure that properties acquired for the Project are appropriately managed in a manner that does not adversely affect the surrounding area.</p>

Table 5. SIA recommended mitigations compared with Project Conditions:  
Social Outcome Strategy.

SIA's Social Outcomes Strategy (p54 to 55, SIA)	Project conditions: No equivalent
<p><b>Purpose/Focus:</b></p> <ul style="list-style-type: none"> <li>• To develop tangible actions which can be applied and embedded throughout the Project so that it is planned, designed, constructed and managed in a way that delivers broader Social Outcomes through project planning, procurement, construction and operation.</li> <li>• The Strategy should reflect the social, economic, cultural and environmental sustainability needs of people living, working, learning and playing along the local area of the project and ensure their needs are incorporated into project planning, design, delivery and operation</li> <li>• Identify opportunities to generate shared economic opportunity for South Aucklanders and targeted groups including:             <ul style="list-style-type: none"> <li>○ Ways in which to support, incubate and provide contracting/supply chain opportunities for target businesses during procurement, construction and after completion</li> <li>○ Developing targets for local, Māori and Pasifika owned, diverse supplier businesses (such as social enterprises, women-owned businesses, disability enterprises etc) to provide goods, services and works either directly or indirectly (as subcontractors) to support the Project.</li> </ul> </li> <li>• Strategies to increase access to education and workforce skills development pathways for people within affected communities, including those experiencing disadvantage. This could include:             <ul style="list-style-type: none"> <li>○ Partnering with local tertiary institutions to understand the skills that are required to deliver the Project and support relevant courses and qualifications to support this</li> <li>○ Engaging with schools in the affected communities to educate them on the broad range of further education and quality employment opportunities in their areas (and opportunities that are sustainable after the completion of the Project)</li> <li>○ Partnering with relevant community organisations to provide pastoral care to local people to support work readiness, cultural awareness training and other support measures.</li> </ul> </li> </ul> <p><b>How:</b> Undertake further stakeholder engagement and apply strategic thinking to develop the Strategy</p> <p><b>When:</b> 18 months to two years prior to construction.</p>	<p>There is no equivalent in the conditions.</p>

Table 6. SIA recommended mitigations compared with Project Conditions:  
Good neighbour policy.

<b>SIA's Good neighbour policy (p57, SIA)</b>	<b>Project conditions: No equivalent</b>
<p><b>Purpose/Focus:</b></p> <ul style="list-style-type: none"> <li>Focus on the role of the workforce as guests in the community and how the Project can support communities to thrive around the construction sites, and to minimise disruption to people's daily lives.</li> </ul> <p><b>How:</b> The Policy can be developed using the Waka Kotahi Being Good Neighbours Guide</p> <p><b>When:</b> Not stated.</p>	<p>There is no equivalent in the conditions.</p>

Table 7. SIA recommended mitigations compared with Project Conditions:  
 Respite and relocation policy.

SIA's Respite and relocation policy (p57, SIA)	Project conditions: Construction Noise and Environment Management Plan. Condition 20 (NoRs 1, 2, 3 and 4a)
<p><b>Purpose/Focus:</b></p> <ul style="list-style-type: none"> <li>• Prior to construction (excluding preparatory works), prepare and implement a Respite and Relocation Policy to be offered to residents whose amenity is significantly affected by construction activities (e.g. out of hours works or sustained loss of amenity during the day for residences with special circumstances such as shift workers) or who are subject to loss of access. The Respite and Relocation Policy will only apply during the period in which residents are (or are likely to be) affected.</li> <li>• Stakeholders, particularly business stakeholders have suggested construction activity could be undertaken at different times, outside of normal business hours to potentially reduce impacts. In some areas this would require consideration for 'sensitive receivers' such as education providers, healthcare facilities and residents (including shift workers). In order to enable that flexibility for construction hours while mitigating the potential impacts it is recommended a Respite and Relocation Policy be developed. Respite to residents could be provided by way of temporary relocation. For example, while noise standards during construction could be met, a shift worker could be relocated temporarily to enable them to sleep undisturbed.</li> </ul> <p><b>How:</b> The Policy should contain:</p> <ul style="list-style-type: none"> <li>• The criteria that must be met for relocation to be offered to affected residents</li> <li>• Consideration of special circumstances such as language or cultural need, special needs related to health conditions or home businesses</li> <li>• The type and duration of out-of-hours work covered by the policy.</li> </ul> <p><b>When:</b> Not stated, beyond 'prior to construction'.</p>	<p>There is no equivalent in the conditions regarding construction times being outside of usual hours to potentially reduce impacts.</p> <p>The Construction Noise and Vibration Management Plan applies, but <u>only</u> to those receivers where noise and vibration standards are exceeded. The words <i>respite</i> and <i>relocation</i> are not used in the condition. There is no flexibility regarding whether a person who experiences daytime noise (but is under the standards) can access respite or relocation e.g., a person working from home, a person on night shift and sleeping in the daytime. For some, relocation may not be desirable and consequently an adaptive approach is required. I suggest that sits within the Development Response Plan.</p>

6.3. **Proposed mitigation 1.** The diverse social effects projected from A2B will be difficult to appropriately mitigate via typical management plans. What is clear is that the people/organisations/businesses which will experience most of these effects are those that live/learn/work/play in the area beside the project. As such, an effective and agile Development Response Plan is required for potentially affected households, community organisations and businesses. Many submitters requested the Applicant ‘avoid, remedy or mitigate effects’ which they had identified were likely, but submitters did not provide suggested mitigations beyond the Development Response Plan (e.g., Business Manukau, NoR-38) or provided suggestions that would sit well in a Development Response Plan (Heather Haylock, NoR3-26). This reinforces the need for such a plan to address submitters concerns.

- a. The conditions underpinning the Development Response Plan should be based on the objectives sought to be achieved and matching the intent, breadth and collaborative approach of the SIA’s recommendations.
- b. A hardship fund is required. Setting up the fund is only helpful if access is relatively simple and quick. Being overseen by a co-governance committee or the like will increase the likelihood of the fund working for both the community and Applicant.
- c. Explicit inclusion in the Development Response Plan for households, community organisations and businesses should occur for the following issues:
  - i. Right hand turn restrictions
  - ii. Loss of on-site carparks
  - iii. Loss of on-street carparks
  - iv. Exposure to noise, vibration and/or dust that does not exceed the standards but is otherwise judged to have a negative amenity impact, including properties not acquired by the Applicant but now exposed to greater amenity impacts due to removal of other buildings/structures
  - v. Independent and confidential support for anxiety and mental health outcomes
  - vi. Assistance for those tenants, leaseholders or owners who are asked to move e.g., individualised and group support through the process, social worker to help the person/family help find social and health services, and support with moving costs
  - vii. The current case by case approach proposed by the Applicant with respect to the Public Works Act substantially works against claimants. While the Public Works Act funds work for those directly affected it does not assist those not directly affected. The Development Response Plan can assist by helping those affected collaborate for efficiency and fair outcomes. Many people affected (including those indirectly affected) will gain clarity and support by being helped to work together.
- d. The Development Response Plan should be developed soon after the NoR is granted and be operational until the end of construction.
- e. The process of developing the plan needs to be truly collaborative. Given English as a second language, older people and low literacy within parts of the affected communities, face:face in-person engagement will be required.

- f. The plan should be developed and implemented by an entity with substantial independence from the Applicant. The development, operation and outcomes of the plan should be monitored and reported on by a separate independent entity under the auspices of Auckland Council.
- 6.4. **Proposed mitigation 2.** The complex and long-running nature of community engagement for A2B requires a community engagement strategy that matches the collaborative nature, intent, breadth and active nature of the SIA’s recommendations.
- a. The Community Engagement Plan should be developed soon after the NoR is granted and be operational until the end of construction.
- b. The plan should be developed and implemented by an entity with substantial independence from the Applicant. The development, operation and outcomes of the plan should be monitored and reported on by a separate independent entity under the auspices of Auckland Council.
- 6.5. **Proposed mitigation 3.** The SIA’s social outcomes strategy is a tangible way to cement engagement of the community in the development of the project. Characteristics of the SIA’s social outcome strategy are not present in any existing conditions.
- a. The Social Outcome Strategy should be developed alongside further engagement and collaboration with the community. The strategy should match the collaborative nature, intent and breadth of the SIA’s recommendations.
- b. The Social Outcome Strategy should be developed and available at least 18 months prior to Stage of Work construction and remain operational until the end of Stage of Work construction.
- c. The plan should be developed and implemented by an entity with substantial independence from the Applicant. The development, operation and outcomes of the plan should be monitored and reported on by a separate independent entity under the auspices of Auckland Council.
- 6.6. **Proposed mitigation 4.** Develop a Good Neighbour policy following the meaning and intent of Waka Kotahi’s Good Neighbours Guide. Ensure the Guide is available 6 months prior to Stage of Work construction. The operation and outcomes of the plan should be monitored and reported on by an independent entity under the auspices of Auckland Council.
- 6.7. **Proposed mitigation 4.** Project condition 7 requires re-writing to collaborate with community organisations for the purpose of encouraging the active use of acquired sites. The operation and outcomes of the plan should be monitored and reported on by an independent entity under the auspices of Auckland Council.
- 6.8. **Proposed mitigation 5.** Construction noise effects on Manukau Memorial Gardens are inadequately dealt with in the conditions. The conditions require the specific mention of the gardens and the need for any contractor to liaise with the operator of the gardens so that noise (at a threshold agreed by noise experts) is not exceeded during planned services or memorials.
- 6.9. **Proposed mitigation 6.** The lack of detail about pedestrian and cyclist desire lines, movement between key destinations and level of service for a transport project is concerning. As such, little is known about community severance, especially for that across the bus rapid transit corridor. To rectify, a connectivity assessment is required to be undertaken soon after

notification of consent. The results and how they have been used to inform the design will be shared with the community, stakeholders and Auckland Council.

- 6.10. **Proposed mitigation 7.** The lack of Auckland-specific empirical evidence regarding the cost and benefits of carpark removal is woeful. A condition is required for high quality research to be carried out, and the results used to inform the design and construction of A2B. The Applicant has the near-identical NoR for the EB2 and EB3 busway project. The EB2 and EB3R project is at least a decade ahead of AB2's proposed start of construction, and is therefore a perfect option for undertaking such research. The research should be developed and undertaken by an entity with substantial independence from the Applicant. The research methodology should be peer reviewed by Auckland Council.
- 6.11. **Proposed mitigation 8.** Deciding not to put a Bus Rapid Transit stop at the Manukau Memorial Gardens site was based on the options assessment saying the area is low density housing. This a weak argument for a regionally significant site. Inserting a stop at the gardens is recommended.

## 7. Conclusion

- 7.1. I consider the SIA to be of high quality with some issues of relevance to decision makers:
- a. Operational right hand turn restrictions have no proposed mitigations
  - b. Operational severance has weak mitigations
  - c. Operational loss of on-site and on-street carparking has weak mitigations
  - d. Construction noise at Manukau Memorial Gardens has no proposed mitigations
  - e. Limited engagement has been undertaken with the community
  - f. Manukau Memorial Gardens does not have a Bus Rapid Transit stop.
- 7.2. The most significant issues regarding social effects however are not with the SIA, but the conditions proposed. Because the SIA identified numerous extreme-negative and high-negative social effects, and acknowledged difficulties in engaging residents, the SIA recommended a comprehensive and agile set of management plans and policies. While some have been taken through to the conditions in name only, others have little to no carry through. This is wholly inadequate, and the Applicant has been made aware of this in the past with no attempt to change.
- 7.3. As such I have recommended seven conditions to address 7.1 and 7.2:
- a. Altered conditions for an effective Development Response Plan
  - b. Altered conditions for an effective Community Engagement Plan
  - c. New conditions for a Social Outcomes Strategy
  - d. New conditions for a Good Neighbour Policy
  - e. Altered conditions regarding acquired sites
  - f. New conditions regarding construction noise at Manukau Memorial Gardens

g. New conditions requiring research on carpark loss and the consequent application of results to AB2.

7.4. With the recommendations above, I consider the potential social effects of the project will be managed as far as practically possible.



## Appendix 1.

### 8. Qualifications and experience of Robert Quigley

- 8.1. I am the lead author of Waka Kotahi’s Social Impact Assessment Guideline.
- 8.2. I am also the lead author on the Ministry of Health, and the International Association of Impact Assessment’s guidelines on Health Impact Assessment (utilising the social determinants of health).
- 8.3. I deliver an annual lecture to post-graduate students at the University of Otago on the topic of impact assessment, including social impact assessment.
- 8.4. For the past 19 years my work has been as Director of Quigley and Watts Ltd, a social and health research consulting company. My career has focused on bringing research evidence into decision making processes. As a social and health researcher I have undertaken over 65 social and health impact assessments, largely in New Zealand and Australia. These include:
  - a. a social impact assessment for the 3000-place Waikeria Prison expansion (2017)
  - b. the monitoring of social effects arising from the Auckland South Corrections Facility (2015 to 2018) (a Board of Inquiry condition)
  - c. the monitoring of social effects arising from the Waikeria Prison expansion on nearby townships (2018 onwards) (an Environment Court condition)
  - d. the effects of the Melbourne Airport runway development programme (2019) (Public Exhibition of Master Plan)
  - e. the social effects of a new township in Ohinewai (2019/20) (Evidence to Proposed Waikato District Plan planning process)
  - f. the social and health effects of Anglo American mining operations on nearby townships in Queensland Australia (2021 ongoing).
- 8.5. I also regularly act for Council’s and Government reviewing applicant social impact assessments including for direct referrals and resource consents. Most recently for:
  - a. a new Care and Protection facility in Auckland (direct referral to Environment Court)
  - b. a new mine near Waihi (resource consents under the RMA)
  - c. over 20 social impact assessments for Waka Kotahi.
- 8.6. I am a member of the Environment Institute of Australia and New Zealand.
- 8.7. I have the following qualifications:
  - a. Bachelor of Science (University of Otago)
  - b. Bachelor of Consumer and Applied Science (University of Otago)
  - c. Post Graduate Diploma in Dietetics (University of Otago).



## Appendix 1 - 10A Social Quigley Conditions tracked changes

### NOTICES OF REQUIREMENT FOR THE AIRPORT TO BOTANY BUS RAPID TRANSIT PROJECT (NoRs 1 to 4a)

#### Abbreviations and definitions

Acronym/Term	Definition
Activity sensitive to noise	Any dwelling, visitor accommodation, boarding house, marae, papakāinga, integrated residential development, retirement village, supported residential care, care centre, lecture theatre in a tertiary education facility, classroom in an education facility and healthcare facility with an overnight stay facility.
ARI	Annual Recurrence Interval
Average increase in flood hazard	Flow depth times velocity
AUP	Auckland Unitary Plan
BPO or Best Practicable Option	Has the same meaning as in section 2 of the RMA 1991
CEMP	Construction Environmental Management Plan
Certification of material changes to management plans and CNVMP Schedules	Confirmation from the Manager that a material change to a plan or CNVMP Schedule has been prepared in accordance with the condition to which it relates. A material change to a management plan or CNVMP Schedule shall be deemed certified: (a) where the Requiring Authority has received written confirmation from Council that the material change to the management plan is certified; or (b) ten working days from the submission of the material change to the management plan where no written confirmation of certification has been received. (c) five working days from the submission of the material change to a CNVMP Schedule where no written confirmation of certification has been received.
CNVMP	Construction Noise and Vibration Management Plan
CNVMP Schedule or Schedule	A schedule to the CNVMP
Completion of Construction	When construction of the Project (or part of the Project) is complete and it is available for use.
Confirmed Biodiversity Areas	Areas recorded in the Identified Biodiversity Area Schedule where the ecological values and effects have been confirmed through the ecological survey under Condition 24.
Construction Works	Activities undertaken to construct the Project excluding Enabling Works.
Council	Auckland Council
CTMP	Construction Traffic Management Plan
DRMP	Development Response Management Plan
<u>DRMPAG</u>	<u>Development Response Management Plan advisory group</u>
EMP	Ecological Management Plan
EIANZ Guidelines	Ecological Impact Assessment: EIANZ guidelines for use in New Zealand: terrestrial and freshwater ecosystems, second edition, dated May 2018.
Enabling works	Includes, but is not limited to, the following and similar activities: <ul style="list-style-type: none"> <li>• geotechnical investigations (including trial embankments);</li> <li>• archaeological site investigations;</li> <li>• formation of access for geotechnical investigations;</li> <li>• establishment of site yards, site entrances and fencing;</li> </ul>

Acronym/Term	Definition
	<ul style="list-style-type: none"> <li>• constructing and sealing site access roads;</li> <li>• demolition or removal of buildings and structures;</li> <li>• relocation of services; and</li> <li>• establishment of mitigation measures (such as erosion and sediment control measures, temporary noise walls, earth bunds and planting).</li> </ul>
Existing authorised habitable floor	The floor level of any room (floor) in a residential building which is authorised by building consent and exists at the time the outline plan is submitted, excluding a laundry, bathroom, toilet or any room used solely as an entrance hall, passageway or garage.
Flood prone area	A potential ponding area that relies on a single culvert for drainage and does not have an overland flow path.
HHMP	Historic Heritage Management Plan
HNZPT	Heritage New Zealand Pouhere Taonga
HNZPTA	Heritage New Zealand Pouhere Taonga Act 2014
Identified Biodiversity Area	Means an area or areas of ecological value where the Project ecologist has identified that the project will potentially have a moderate or greater level of ecological effect, prior to implementation of impact management measures, as determined in accordance with the EIANZ guidelines.
Manager	The Manager – Resource Consents of the Auckland Council, or authorised delegate.
Maximum Probable Development	Design case for consideration of future flows allowing for development within a catchment that takes into account the maximum impervious surface limits of the current zone or, if the land is zoned Future Urban in the Auckland Unitary Plan, the probable level of development arising from zone changes.
Mana Whenua	<p>Mana Whenua as referred to in the conditions are considered to be the following (in no particular order), who at the time of Notice of Requirement expressed a desire to be engaged in the Airport to Botany Bus Rapid Transit Project:</p> <ul style="list-style-type: none"> <li>• Te Ākitai Waiohū</li> <li>• Ngāi Tai ki Tamaki</li> <li>• Ngāti Te Ata Waiohū</li> <li>• Ngāti Whanaunga</li> <li>• Ngāti Tamaoho</li> <li>• Ngāti Paoa Trust Board</li> <li>• Te Ahiwaru</li> <li>• Ngāti Tamaterā</li> <li>• Ngāti Maru</li> </ul> <p><b>Note:</b> other iwi not identified above may have an interest in the Project and should be consulted.</p>
MWPF	Mana Whenua Partnership Forum
Network Utility Operator	Has the same meaning as set out in section 166 of the RMA
NUMP	Network Utilities Management Plan
NOR	Notice of Requirement

<b>Acronym/Term</b>	<b>Definition</b>
Outline Plan	An outline plan prepared in accordance with section 176A of the RMA.
Pre-Project development	Existing site condition prior to the Project (including existing buildings and roadways).
Post-Project development	Site condition after the Project has been completed (including existing and new buildings and roadways).
Project Liaison Person	The person or persons appointed for the duration of the Project's Construction Works to be the main point of contact for persons wanting information about the Project or affected by the Construction Works.
Protected Premises and Facilities (PPF)	Protected Premises and Facilities as defined in New Zealand Standard NZS 6806:2010: <i>Acoustics – Road-traffic noise – New and altered roads</i> .
Requiring Authority	Has the same meaning as section 166 of the RMA and, for this Designation is Auckland Transport.
RMA	Resource Management Act 1991
SCEMP	Stakeholder Communication and Engagement Management Plan
Stage of Work	Any physical works that require the development of an Outline Plan.
Start of Construction	The time when Construction Works (excluding Enabling Works) start.
Suitably Qualified and Experienced Person	A person (or persons) who can provide sufficient evidence to demonstrate their suitability and competence.
ULDMP	Urban and Landscape Design Management Plan

NoR No.	No.	
<b>General Conditions</b>		
<b>NoRs 1, 2, 3 and 4a</b>	<b>1.</b>	<p><b>Activity in General Accordance with Plans and Information</b></p> <p>(a) Except as provided for in the conditions below, and subject to final design and Outline Plan(s), works within the designation shall be undertaken in general accordance with the Project description and concept plan in Schedule 1.</p> <p>(b) Where there is inconsistency between:</p> <ul style="list-style-type: none"> <li>(i) the Project description and concept plan in Schedule 1 and the requirements of the following conditions, the conditions shall prevail; and</li> <li>(ii) the Project description and concept plan in Schedule 1, and the management plans under the conditions of the designation, the requirements of the management plans shall prevail.</li> </ul>
<b>NoRs 1, 2, 3 and 4a</b>	<b>2.</b>	<p><b>Project Information</b></p> <p>(a) A project website, or equivalent virtual information source, shall be established within 12 months of the date on which this designation is included in the AUP. All directly affected owners and occupiers shall be notified in writing once the website or equivalent information source has been established. The project website or virtual information source shall include these conditions and shall provide information on:</p> <ul style="list-style-type: none"> <li>(i) the status of the Project;</li> <li>(ii) anticipated construction timeframes;</li> <li>(iii) contact details for enquiries;</li> <li>(iv) the implications of the designation for landowners, occupiers and business owners and operators within the designation;</li> <li>(v) a subscription service to enable receipt of project updates by email; and</li> <li>(vi) how to apply for consent for works in the designation under section 176(1)(b) of the RMA.</li> </ul> <p>(b) At the start of detailed design for a Stage of Work, the project website or virtual information source shall be updated to provide information on the likely date for Start of Construction, and any staging of works.</p>
<b>NoRs 1, 2, 3 and 4a</b>	<b>3.</b>	<p><b>Designation Review</b></p> <p>(a) The Requiring Authority shall within 6 months of Completion of Construction or as soon as otherwise practicable:</p> <ul style="list-style-type: none"> <li>(i) review the extent of the designation to identify any areas of designated land that it no longer requires for the on-going operation, maintenance or mitigation of effects of the Project; and</li> <li>(ii) give notice to Auckland Council in accordance with section 182 of the RMA for the removal of those parts of the designation identified above.</li> </ul>
<b>NoRs 1, 2, 3 and 4a</b>	<b>4.</b>	<p><b>Lapse</b></p> <p>In accordance with section 184(1)(c) of the RMA, this designation shall lapse if not given effect to within 15 years from the date on which it is included in the AUP.</p>
<b>NoRs 1, 2, 3 and 4a</b>		<p><b>Te Ākitai Waiohū – Southwest Gateway Programme</b></p> <p>The Requiring Authority acknowledges Te Ākitai Waiohū as Mana Whenua and a principal partner to the Southwest Gateway Programme, to which this project forms a part. The operation of this designation must in all respects reflect these matters, including through meeting the conditions and meaningful engagement at both a governance and kaitiaki level.</p>
<b>NoRs 1, 2, 3 and 4a</b>	<b>6.</b>	<p><b>Network Utility Operators (Section 176 Approval)</b></p> <p>(a) Prior to the start of Construction Works, Network Utility Operators (including Auckland International Airport Limited) and Auckland Council with existing</p>

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		<p>infrastructure and/or park facilities located within the designation will not require written consent under section 176 of the RMA for the following activities:</p> <ul style="list-style-type: none"> <li>(i) operation, maintenance and urgent repair works;</li> <li>(ii) minor renewal works to existing network utilities and/or park facilities necessary for the on-going provision or security of supply of network utility and/or park facility operations;</li> <li>(iii) minor works such as new service connections; and</li> <li>(iv) the upgrade and replacement of existing network utilities and/or park facilities in the same location with the same or similar effects as the existing utility and/or park facility.</li> </ul> <p>(b) To the extent that a record of written approval is required for the activities listed above, this condition shall constitute written approval.</p>
NoRs 1, 2, 3	7.	<p><b>Property Management</b></p> <p>The Requiring Authority shall undertake its best endeavours to ensure that properties acquired for the Project are appropriately managed in a manner that <del>via the Development Response Management Plan, promotes positive outcomes for does not adversely affect</del> the surrounding area.</p>
<b>Pre-construction Conditions</b>		
NoRs 1, 2, 3 and 4a	8.	<p><b>Outline Plan</b></p> <ul style="list-style-type: none"> <li>(a) An Outline Plan (or Plans) shall be prepared in accordance with section 176A of the RMA.</li> <li>(b) Mana Whenua shall be invited as partners to <del>participate collaborate</del><sup>1</sup> in the preparation of an Outline Plan (or Plans).</li> <li>(c) Outline Plans (or Plan) may be submitted in parts or in stages to address particular activities (e.g. design or construction aspects), or a Stage of Work of the Project.</li> <li>(d) Outline Plans shall include all management plan or plans that are relevant to the management of effects of those activities or Stage of Work, which may include: <ul style="list-style-type: none"> <li>(i) Network Utilities Management Plan;</li> <li>(ii) Construction Environmental Management Plan;</li> <li>(iii) Construction Traffic Management Plan;</li> <li>(iv) Construction Noise and Vibration Management Plan;</li> <li>(v) Urban and Landscape Design Management Plan;</li> <li>(vi) Historic Heritage Management Plan;</li> <li>(vii) Ecological Management Plan; and</li> <li>(viii) Tree Management Plan.</li> </ul> </li> </ul>
NoRs 1, 2, 3 and 4a	9.	<p><b>Management Plans</b></p> <ul style="list-style-type: none"> <li>(a) Any management plan shall: <ul style="list-style-type: none"> <li>(i) be prepared and implemented in accordance with the relevant management plan condition;</li> <li>(ii) be prepared by a Suitably Qualified and Experienced Person(s);</li> <li>(iii) be developed in <del>partnership collaboration</del> with Mana Whenua. The Requiring Authority shall provide reasonable resourcing, technical and administrative support for Mana Whenua;</li> <li>(iv) include sufficient detail relating to the management of effects associated with the relevant activities and/or Stage of Work to which it relates;</li> <li>(v) <del>be reviewed by Council to ensure process has been followed and effects are sufficiently managed</del></li> <li>(<del>v</del>)vi summarise comments received from Mana Whenua and stakeholders as required by the relevant management plan condition, along with a summary of where comments have: <ul style="list-style-type: none"> <li>A. been incorporated; and</li> </ul> </li> </ul> </li> </ul>

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<sup>1</sup> As per IAP2 definition of collaborate: ~~We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.~~

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		<p>B. where not incorporated, the reasons why.</p> <p><del>(vi)</del>(vii) be submitted as part of an Outline Plan pursuant to section 176A of the RMA, with the exception of SCEMPs and CNVMP Schedules; and <del>(vii)</del>(viii) once finalised, uploaded to the Project website or equivalent virtual information source.</p> <p>(b) Any management plan developed in accordance with Condition 10-9 may:</p> <ul style="list-style-type: none"> <li>(i) be submitted in parts or in stages to address particular activities (e.g. design or construction aspects) a Stage of Work of the Project, or to address specific activities authorised by the designation;</li> <li>(ii) except for material changes, be amended to reflect any changes in design, construction methods or management of effects without further process; and</li> <li>(iii) if there is a material change required to a management plan which has been submitted with an Outline Plan, the revised part of the plan shall be submitted to the Council as an update to the Outline Plan or for Certification as soon as practicable following identification of the need for a revision.</li> </ul> <p>(c) Any material changes to the SCEMPs are to be submitted to the Council for <del>information review</del>.</p>
NoRs 1, 2, 3 and 4a	10.	<p><b>Mana Whenua Partnership</b></p> <p><del>(a) Within six months of receiving the NoRA at least twelve (12) months prior to the start of detailed design for a Stage of Work</del>, the Requiring Authority shall invite Mana Whenua to establish a Mana Whenua Partnership Forum (MWPF). The objective of the MWPF is to provide a forum for Mana Whenua to participate as partners in all phases of the Project. To achieve the objective, the MWPF, <del>the developers and the consenting authority</del> shall <del>agree on terms of reference for the MWPF including address</del> (as a minimum) the following matters:</p> <p><b><u>(a) Requirements for implementing MWPF advice</u></b></p> <ul style="list-style-type: none"> <li>(i) how Mana Whenua will provide input into the design of the Project <del>and how the consenting authority will ensure this input is implemented</del>. For example: <ul style="list-style-type: none"> <li>A. how Mana Whenua values and narrative are incorporated through the form of the Project and associated structures;</li> <li>B. how the historic and cultural significance of the Puhinui Historic Gateway will be recognised; and</li> <li>C. how pou, art, sculptures, mahi toi or other any other features located on land within or adjoining the Project will be provided in a manner that represents the Māori history of the area and promotes a distinctiveness or sense of place.</li> </ul> </li> <li><del>(ii) The consequences for the developer if the input from the MWPF is not adequately implemented</del></li> <li><del>(iii) how Mana Whenua will be engaged/collaborated with in the preparation of management plans and future consenting processes;</del></li> <li><del>(iv) how mātauranga Māori and tikanga Māori will be recognised in all phases of the Project.</del></li> </ul> <p><b><u>Support for MWPF</u></b></p> <ul style="list-style-type: none"> <li><del>(v) The frequency and type of monitoring and reporting required to ensure the MWPF is fully informed about compliance with all consenting conditions. Including but not limited to compliance with the ULDM, DRMP, NUMP, Tree Management Plan, HHMP, CNVMP, CTMP, CEMP and the Cultural Monitoring Plan.</del></li> <li><del>(vi) How the MWPF will be supported with technical legal, effects and resource management advice from the consenting authority and the developer. Including but not limited to legal, resource management, effects specialists liaison people at the consenting authority and the developer who will be available prior, at and after for all meetings and</del></li> </ul>

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- provide technical agenda papers in a timely fashion between meetings to ensure discussions are fully informed.
- (vii) ~~the MWPF will be administratively supported, including meeting organisation, a local venue and the taking and dissemination of meeting minutes; the Requiring Authority shall provide reasonable resourcing, technical and administrative support for Mana Whenua including organising meetings at a local venue and the taking and dissemination of meeting minutes;~~
  - (viii) ~~the frequency of meetings shall be agreed between the Requiring Authority and Mana Whenua; and~~
  - (ix) ~~prior to the Start of Construction, the Requiring Authority shall produce a record of the Mana Whenua Partnership Forum. The record of the MWPF shall be provided to Mana Whenua and the Consenting Authority and shall include (but not be limited to):~~
    - A. ~~details of how Mana Whenua have participated as partners in the Project;~~
    - B. ~~details of how the matters set out in Condition 10(a) will be incorporated into the Project;~~
    - C. ~~how the objective of the MWPF has been and will continue to be met; and~~
    - D. ~~details of how comments from Mana Whenua have been incorporated into the Project and where not incorporated, the reasons why.~~

**Engagement with community**

- (ii) ~~how Mana Whenua will be engaged in the preparation of management plans and future consenting processes;~~
- (iii) ~~how mātauranga Māori and tikanga Māori will be recognised in all phases of the Project;~~
- (iv)(x) ~~where opportunities for MWPF will identify how they wish to ana Whenua to participate in engagement with local communities, business associations, social institutions and community groups. Funding for engagement activities will be provided by the consenting authority, will be provided;~~
- (v)(xi) ~~where opportunities for Mana Whenua to MWPF will identify how they wish to support the physical, mental, social and economic wellbeing for iwi and the local community, resources and funding y will be provided through the Project. This could include:~~
  - A. ~~planting supplied through Mana Whenua and community based nurseries;~~
  - B. ~~local schools being involved in planting; and~~
  - C. ~~scholarships, cadetships and job creation~~
  - D. ~~use of acquired properties for positive community outcomes~~
  - C-E. ~~support for community members affected by the Project.~~
- (vi) ~~the Requiring Authority shall provide reasonable resourcing, technical and administrative support for Mana Whenua including organising meetings at a local venue and the taking and dissemination of meeting minutes;~~
- (vii) ~~the frequency of meetings shall be agreed between the Requiring Authority and Mana Whenua; and~~
- (viii) ~~prior to the Start of Construction, the Requiring Authority shall produce a record of the Mana Whenua Partnership Forum. The record of the MWPF shall be provided to Mana Whenua and shall include (but not be limited to):~~
  - A. ~~details of how Mana Whenua have participated as partners in the Project;~~
  - B. ~~details of how the matters set out in (a) will be incorporated into the Project;~~
  - C. ~~how the objective of the MWPF has been and will continue to be met; and~~
  - D. ~~details of how comments from Mana Whenua have been incorporated into the Project and where not incorporated, the~~

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		<p style="text-align: center;"><del>reasons why.</del></p> <p>(b) Mana Whenua shall be invited to identify and (if possible) nominate traditional names along the Project corridor such as Bus Rapid Transit Stations and bridge structures. Noting there may be formal statutory processes outside the project required in any decision-making.</p> <p>(c) The MWPF shall continue to meet for at least six months following the Completion of Construction or as agreed with Mana Whenua.</p>
NoRs 1, 2, 3 and 4a	11.	<p><b>Stakeholder Communication and Engagement Management Plan (SCEMP)</b></p> <p><del>(a) A SCEMP shall be prepared in consultation with stakeholders, community groups and organisations 18 months prior to the Start of Construction for a Stage of Work. The objectives of the SCEMP is are to:</del></p> <p><del>a. develop, maintain and build relationships with the wider public and diverse stakeholders (including directly affected and adjacent owners e.g., businesses, community organisations, households; and their tenants, and those potentially affected in other ways)</del></p> <p><del>b. provide opportunities for those new to the area to find out about and engage with the project</del></p> <p><del>c. identify how the public and diverse stakeholders (including directly affected and adjacent owners and occupiers of land) will be proactively engaged with prior to and throughout the Construction Works, the purpose of each engagement, by when and by/with whom</del></p> <p><del>d. feed information into the Development Response Management Plan and communicate out of the Development Response Management Plan.</del></p> <p><del>(b) To achieve the objective, the SCEMP shall be co-designed<sup>2</sup> by a representative group including stakeholders, the wider public, MWPF, and others as required.</del></p> <p><del>(c) The SCEMP co-design group will be supported with technical legal, effects and resource management advice from the consenting authority and the developer. Including but not limited to legal, resource management, effects specialists who will be available prior, at and after all meetings and provide technical agenda papers in a timely fashion between meetings to ensure discussions are fully informed.</del></p> <p><del>(d) The SCEMP co-design group will be administratively supported including meeting organisation, a local venue and the taking and dissemination of meeting minutes;</del></p> <p><del>(e) The frequency of meetings shall be agreed between the Requiring Authority and the SCEMP co-design group;</del></p> <p><del>(a)(f) The SCEMP will include:</del></p> <p><del>a. a description of the approaches to be undertaken to achieve the objectives of the SCEMP</del></p> <p><del>(b) the contact details for the Project Liaison Person. These details shall be on the Project website, or equivalent virtual information source, and prominently displayed at the main entrance(s) to the site(s);</del></p> <p><del>(c) the procedures for ensuring that there is a contact person available for the duration of Construction Works the SCEMP, for engagement with the project by the wider public and stakeholders public enquiries or complaints about the Construction Works;</del></p> <p><del>d. a list of stakeholders, community groups, organisations, individuals and businesses who will be engaged with;</del></p> <p><del>(d)e. methods to communicate key project milestones and the proposed hours of construction activities including outside of normal working</del></p>

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<sup>2</sup> Codesign is a set of methods to involve the people affected in the development of plans. For example, see <https://knowledgeauckland.org.nz/publications/co-design-in-aotearoa-new-zealand-a-snapshot-of-the-literature/>

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		<p>hours and on weekends and public holidays, to the parties identified in (iv) and (v) above; and</p> <p>f. linkages and cross-references to communication and engagement methods set out in other conditions and management plans where relevant.</p> <p>(i) identification of the properties whose owners will be engaged with;</p> <p>(ii) details of opportunities to strengthen the relationship between Mana Whenua, key stakeholders and the wider community;</p> <p>(iii) methods and timing to engage with landowners whose access is directly affected;</p> <p>(iv)</p> <p>(g) Any The completed SCEMP prepared for a for all Stages of Work shall be submitted to Council for independent<sup>3</sup> review within six months of receiving the NoR information ten working days prior to the Start of Construction for a Stage of Work.</p> <p>(h) Following completion of the SCEMP, the co-design group will become the Development Response Management Plan Advisory Group. To achieve the objectives, the developers and the consenting authority shall agree on terms of reference for the DRMPAG, and resource the group appropriately with legal, resource management, and effects specialists.</p> <p>(e)(i) The SCEMP will be reviewed annually by the Development Response Management Plan Advisory Group.</p>
NoRs 1, 2, 3	12.	<p><b>Development Response Management Plan (DRMP)</b></p> <p>(a) A DRMP shall be prepared in consultation with stakeholders, community groups and organisations 18 months prior to the Start of Construction for a Stage of Work. The objectives of the DRMP is are to:</p> <p>(i) provide a framework to identify and understand the impacts of planning, construction and operation of the Project ofn the wider public and stakeholders (including directly affected and adjacent owners e.g., businesses, community organisations, households and their tenants, and those potentially affected in other ways) on an ongoing basis</p> <p>(ii) provide a framework to respond to negative impacts, be that how to avoid or mitigate negative impacts. When negative impacts cannot be appropriately mitigated, an agile, simple and effective assistance package and hardship fund will be available for compensation of landowners, tenants, adjacent property owners, and those potentially affected in other ways</p> <p>(iii) provide a framework to maximise positive social outcomes from the Project. This may include supply chain opportunities, education and training opportunities, targets for contracting with Maori and Pasifika businesses and organisations, partnerships with local community organisations to provide support for people affected, active use/management of vacant buildings.</p> <p>(iv) The potential effects to be considered and addressed are those identified in the SIA, and for the following issues not presently assessed or mitigated in the SIA:</p> <p>A. right-hand turn restrictions</p> <p>B. loss of on-site carparks</p> <p>C. loss of on-street carparks</p> <p>D. exposure to noise, vibration and/or dust that does not exceed the standards but is otherwise judged to have a negative amenity impact, including properties not acquired by the Applicant but now</p>

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<sup>3</sup> Independent of the Requiring Authority and any agency implementing the work, and under the auspices of Auckland Council.

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	<p><u>exposed to greater amenity impacts due to removal of other buildings/structures</u></p> <p><u>E. independent and confidential support for anxiety and mental health outcomes</u></p> <p><u>F. assistance for those tenants, leaseholders or owners who are asked to move e.g., individualised and group support through the process, social worker to help the person/family help find social and health services, and support with moving costs</u></p> <p><u>G. the current case by case approach proposed by the Applicant with respect to the Public Works Act substantially works against claimants. While the Public Works Act funds work for those directly affected it does not assist those not directly affected. The Development Response Plan can assist by helping those affected collaborate for efficiency and fair outcomes. Many people affected (including those indirectly affected) will gain clarity and support by being helped to work together.</u></p> <p><u>(xii) ensure independent<sup>4</sup> monitoring and compliance with all consenting plans, including but not limited to compliance with the ULDM, DRMP, NUMP, Tree Management Plan, HHMP, CNVMP, CTMP, CEMP and the Cultural Monitoring Plan.</u></p> <p><u>(v) offer and facilitate wider public and stakeholders to work together throughout any part of the process, if they so choose</u></p> <p><u>(vi) provide a framework to assist businesses affected by the Project to manage the impacts of construction and to maximise the opportunities the Project presents ensure that throughout any property acquisition process, landowners, tenants and adjacent landholders are treated appropriately and their mental wellbeing is supported</u></p> <p><u>(vii) include a Good Neighbour Policy and implementation plan as per the meaning and intent of Waka Kotahi's Good Neighbour Guide.</u></p> <p><u>(b) The DRMP shall be co-designed by the Development Response Management Plan Advisory Group</u></p> <p><u>(a)(c) To achieve the objective, the DRMP shall include:</u></p> <p><u>(i) a logic model showing the objectives, actions and outcomes from the DRMP</u></p> <p><u>(ii) a description of the approaches to be undertaken to achieve the objectives of the DRMP including the collaborations proposed with local community organisations/support agencies</u></p> <p><u>(iii) a list of businesses/stakeholders likely to be impacted by the Project;</u></p> <p><u>(ii) a list of business associations and key business stakeholder groups that have and will be engaged through the development of the DRMP;</u></p> <p><u>(iii)(iv) details of the methodology to establish the baseline of businesses stakeholders identified in 12(a)(ii);</u></p> <p><u>(i) recommendations for measures to be undertaken to manage the impacts of planning, construction and operation Works on the identified businesses/stakeholders;</u></p> <p><u>(v) a monitoring and reporting schedule report to assess compliance with all consenting conditions, including but not limited to compliance with the ULDM, DRMP, NUMP, Tree Management Plan, HHMP, CNVMP, CTMP, CEMP and the Cultural Monitoring Plan. The monitoring report will reflect the effectiveness of the logic model in 12(c)(i)</u></p> <p><u>(iv) the contact details for the Project Liaison Person. These details shall be on the Project website, or equivalent virtual information source, and prominently displayed at the main entrance(s) to the site(s);</u></p> <p><u>(vi)(viii) the procedures for ensuring that there is a contact person available for the duration of planning and construction Works, for public enquiries or complaints about the planning or construction Works;</u></p> <p><u>(vii)(ix) methods to communicate key project milestones and the proposed hours of construction activities including outside of normal working hours and on weekends and public holidays, to the parties identified in 12(a)(ii) above;</u></p>
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		<p><del>(viii)(x)</del> a summary of any proactive assistance provided to impacted <del>businessesstakeholders</del>;</p> <p><del>(ix)(xi)</del> identification of opportunities to co-ordinate the forward work programme, where appropriate with infrastructure providers and development agencies; and</p> <p><del>(xii)</del> linkages and cross-references to communication and engagement methods set out in other conditions and management plans (e.g. the SCEMP) where relevant.</p> <p><del>(xiii)</del> <u>Independent research on the social and economic costs/benefits of carpark removal from public and private land associated with the Eastern Busway 2 and 3R projects. The research methodology shall be reviewed by Auckland Council. The findings will inform how the DRMPAG responds to the potential effects arising from loss of carparking in the Airport to Botany project</u></p> <p><del>(d)</del> <u>The Development Response Management Plan Advisory Group will meet at a necessary frequency to:</u></p> <p><del>(xiv)</del> <u>facilitate the ongoing involvement of the wider public and stakeholders in the identification and understanding of impacts, and the development of potential mitigation strategies</u></p> <p><del>review the impacts identified, appropriate responses to be provided, and share information with the wider community about process and outcomes.</del></p> <p><del>(x)(xv)</del> <u>The consenting authority will provide funding for all meetings and administrative support and funding for an appropriately qualified advisor (legal and resource management expert).</u></p> <p><del>(b)</del> <u>The completed DRMP for all Stages of Work shall be submitted to Council for review within 12-months of receiving the NoR.</u></p> <p><del>(b)(c)</del> <u>The DRMP will be reviewed annually by the Development Response Management Plan Advisory Group. Any DRMP prepared for a Stage of Work shall be submitted to Council for information ten working days prior to the Start of Construction for a Stage of Work.</u></p>
NoRs 1, 2, 3 and 4a	13.	<p><b>Urban and Landscape Design Management Plan (ULDMP)</b></p> <p>(a) A ULDMP shall be prepared prior to the Start of Construction for a Stage of Work.</p> <p>(b) Mana Whenua shall be invited to participate in the development of the ULDMP at least six (6) months prior to the start of detailed design for a Stage of Work to provide input on cultural landscape and design matters. This shall include (but not be limited to) how desired outcomes for the management of potential effects on cultural sites, landscapes and values identified and discussed in accordance with the Historic Heritage Management Plan (Condition 23) and the Ecological Management Plan (Condition 25) may be reflected in the ULDMP</p> <p>(c) The objective of the ULDMP is to:</p> <p>(i) enable integration of the Project's permanent works into the surrounding landscape and urban context;</p> <p><del>(ii)</del> <u>ensure that the Project <del>mitigates-manages</del> potential adverse landscape and visual effects as far as practicable and contributes to a quality urban environment;</u></p> <p><del>(ii)(iii)</del> <u>Provide commensurate rejuvenation of the local <del>environmentenvironment</del> and</u></p> <p><del>(iii)(iv)</del> <u>acknowledge and recognise the whakapapa Mana Whenua have to the Project area.</u></p> <p>(d) The ULDMP shall be prepared in general accordance with:</p> <p>(i) Auckland Transport's Urban Roads and Streets Design Guide;</p> <p>(ii) Waka Kotahi Urban Design Guidelines: Bridging the Gap (2013) or any subsequent updated version;</p>

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<sup>4</sup> independent of the Requiring Authority and any agency implementing the work, and under the auspices of Auckland Council.

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		<ul style="list-style-type: none"> <li>(iii) Waka Kotahi Landscape Guidelines (2013) or any subsequent updated version;</li> <li>(iv) Waka Kotahi P39 Standard Specification for Highway Landscape Treatments (2013) or any subsequent updated version; and</li> <li>(v) Auckland's Urban Ngahere (Forest) Strategy or any subsequent updated version.</li> </ul> <p>(e) To achieve the objective, the ULDMP shall provide details of how the project:</p> <ul style="list-style-type: none"> <li>(i) is designed to integrate with the adjacent urban (or proposed urban) and landscape context, including the surrounding existing or proposed topography, urban environment (i.e. centres and density of built form), natural environment, landscape character and open space zones; provides appropriate walking and cycling connectivity to, and interfaces with, existing or proposed adjacent land uses, <a href="#">key destinations and desire lines</a>, public transport infrastructure and walking and cycling connections <a href="#">across and along the Project</a>;</li> <li>(ii) promotes inclusive access (where appropriate); and</li> <li>(iii) promotes a sense of personal safety by aligning with best practice guidelines, such as: <ul style="list-style-type: none"> <li>A. Crime Prevention Through Environmental Design (CPTED) principles;</li> <li>B. Safety in Design (SID) requirements; and</li> <li>C. Maintenance in Design (MID) requirements and anti-vandalism/anti-graffiti measures.</li> </ul> </li> <li>(iv) provides opportunities to incorporate Mana Whenua values and cultural narrative through the design. This shall include but not be limited to: <ul style="list-style-type: none"> <li>A. how to protect and enhance connections to the Māori cultural landscape;</li> <li>B. how and where accurate historical signage can be provided along the corridor;</li> <li>C. how historical portage routes will be recognised;</li> <li>D. how opportunities for cultural expression through, for example mahi toi, art, sculptures or other public amenity features will be provided;</li> <li>E. how opportunities to utilise flora and fauna with a specific connection to the area are realised where possible by: <ul style="list-style-type: none"> <li>a. preserving them in the design and maintenance of the Project; and</li> <li>b. restoring them in a manner that recognises their historical and cultural significance. For example by clustering planting to represent a lost ngahere.</li> </ul> </li> <li>F. how the historic and cultural significance of the Puhinui Historic Gateway is recognised; and</li> <li>G. how public access to coastal areas, waterways and open space is enhanced, where appropriate.</li> </ul> </li> <li>(v) provides for an integrated stormwater management approach which prioritises in the following order: <ul style="list-style-type: none"> <li>A. opportunities for ki uta ki tai (a catchment scale approach);</li> <li>B. opportunities for net catchment benefit;</li> <li>C. green infrastructure and nature-based solutions; and</li> <li>D. opportunities for low maintenance design.</li> </ul> </li> </ul> <p>(f) At the discretion of Mana Whenua, the matters listed in (e)(v) – (vi) shall either be incorporated into the ULDMP or prepared as a separate plan.</p> <p>(g) The ULDMP shall include:</p> <ul style="list-style-type: none"> <li>(i) a concept plan(s) – which depicts the overall landscape and urban design concept, and explains the rationale for the landscape and urban design proposals;</li> </ul>

NoR No.	No.	
		<p>(i) developed design concepts, including principles for walking and cycling facilities and public transport;</p> <p><del>(ii)</del><del>(iii)</del> <u>a connectivity and severance assessment of and key destinations, desire lines and levels of service for people walking and cycling across and along the Project;</u></p> <p><del>(iii)</del><del>(iv)</del> landscape and urban design details – that cover the following:</p> <ul style="list-style-type: none"> <li>A. road design – elements such as intersection form, carriageway gradient and associated earthworks contouring including cut and fill batters and the interface with adjacent land uses, benching, spoil disposal sites, median width and treatment, roadside width and treatment;</li> <li>B. roadside elements – such as lighting, fencing, wayfinding and signage;</li> <li>C. architectural and landscape treatment of all major structures, including bridges and retaining walls;</li> <li>D. architectural and landscape treatment of noise barriers;</li> <li>E. landscape treatment of permanent stormwater control wetlands and swales;</li> <li>F. integration of passenger transport;</li> <li>G. pedestrian and cycle facilities including paths, road crossings and dedicated pedestrian/ cycle bridges or underpasses;</li> <li>H. historic heritage places with reference to the HHMP (Condition 23); and</li> <li>I. re-instatement of construction and site compound areas, driveways, accessways and fences.</li> </ul> <p>(h) The ULDMP shall also include the following planting details and maintenance requirements:</p> <ul style="list-style-type: none"> <li>(i) planting design details including: <ul style="list-style-type: none"> <li>A. identification of existing trees and vegetation that will be retained with reference to the Tree Management Plan (Condition 26). Where practicable, mature trees and native vegetation should be retained;</li> <li>B. street trees, shrubs and ground cover suitable for berms;</li> <li>C. treatment of fill slopes to integrate with adjacent land use, streams, riparian margins and open space zones;</li> <li>D. planting of stormwater wetlands;</li> <li>E. identification of vegetation to be retained and any planting requirements under the Ecological Management Plan (Condition 25) and Tree Management Plan (Condition 26);</li> <li>F. integration of any planting requirements required by conditions of any resource consents for the project; and</li> <li>G. re-instatement planting of construction and site compound areas as appropriate.</li> </ul> </li> <li>(ii) a planting programme including the staging of planting in relation to the construction programme which shall, as far as practicable, include provision for planting within each planting season following completion of works in each Stage of Work; and</li> <li>(iii) detailed specifications relating to the following: <ul style="list-style-type: none"> <li>A. weed control and clearance;</li> <li>B. pest animal management (to support plant establishment);</li> <li>C. ground preparation (top soiling and decompaction);</li> <li>D. mulching; and</li> <li>E. plant sourcing and planting, including hydroseeding and grassing, and use of eco-sourced species.</li> </ul> </li> </ul> <p><b>Advice Note:</b></p> <p><i>This designation is for the purpose of construction, operation and maintenance of an arterial transport corridor and it is not for the specific purpose of "road widening". Therefore, it is not intended that the front yard definition in the Auckland Unitary Plan which applies a set back from a designation for road widening purposes applies to</i></p>

NoR No.	No.	
		<i>this designation. A set back is not required to manage effects between the designation boundary and any proposed adjacent sites or lots.</i>
<b>Specific Outline Plan Requirements</b>		
<b>NoRs 1, 2, 3 and 4a</b>	<b>14.</b>	<p><b>Flood Hazard</b></p> <p>(a) The Project shall be designed to achieve the following flood risk outcomes:</p> <ul style="list-style-type: none"> <li>(i) no increase in flood levels for existing authorised habitable floors that are already subject to flooding;</li> <li>(ii) no more than a 10% reduction in freeboard for existing authorised habitable floors;</li> <li>(iii) no increase of more than 50mm in flood level on land zoned for urban or future urban development where there is no existing dwelling;</li> <li>(iv) no new flood prone areas; and</li> <li>(v) no more than a 10% average increase of flood hazard (defined as flood depth times velocity) for main access to authorised habitable dwellings existing at time the Outline Plan is submitted.</li> </ul> <p>(b) Compliance with this condition shall be demonstrated in the Outline Plan, which shall include flood modelling of the pre-Project and post-Project 100 year ARI flood levels (for Maximum Probable Development land use and including climate change).</p> <p>(c) Where the above outcomes can be achieved through alternative measures outside of the designation such as flood stop banks, flood walls, raising existing authorised habitable floor level and new overland flow paths or varied through agreement with the relevant landowner, the Outline Plan shall include confirmation that any necessary landowner and statutory approvals have been obtained for that work or alternative outcome.</p>
<b>Construction Conditions</b>		
<b>NoRs 1, 2, 3 and 4a</b>	<b>15.</b>	<p><b>Construction Environmental Management Plan (CEMP)</b></p> <p>(a) A CEMP shall be prepared prior to the Start of Construction for a Stage of Work.</p> <p>(b) The objective of the CEMP is to set out the management procedures and construction methods to be undertaken to avoid, remedy or mitigate any adverse effects associated with Construction Works as far as practicable. To achieve the objective, the CEMP shall include:</p> <ul style="list-style-type: none"> <li>(i) the roles and responsibilities of staff and contractors;</li> <li>(ii) details of the site or project manager and the Project Liaison Person, including their contact details (phone and email address);</li> <li>(iii) the Construction Works programmes and the staging approach, and the proposed hours of work;</li> <li>(iv) details of the proposed construction yards including temporary screening when adjacent to residential areas, locations of refuelling activities and construction lighting;</li> <li>(v) methods for controlling dust and the removal of debris and demolition of construction materials from public roads or places;</li> <li>(vi) methods for providing for the health and safety of the general public;</li> <li>(vii) measures to mitigate flood hazard effects such as siting stockpiles out of floodplains, minimising obstruction to flood flows, actions to respond to warnings of heavy rain;</li> <li>(viii) procedures for incident management;</li> <li>(ix) procedures for the refuelling and maintenance of plant and equipment to avoid discharges of fuels or lubricants to watercourses;</li> <li>(x) measures to address the storage of fuels, lubricants, hazardous and/or dangerous materials, along with contingency procedures to address emergency spill response(s) and clean up;</li> <li>(xi) procedures for responding to complaints about Construction Works; and</li> <li>(xii) methods for amending and updating the CEMP as required.</li> </ul>



NoR No.	No.	
NoRs 1, 2, 3 and 4a	16.	<p><b>Complaints Register</b></p> <p>(a) At all times during Construction Works, a record of any complaints received about the Construction Works shall be maintained. The record shall include:</p> <ul style="list-style-type: none"> <li>(i) the date, time and nature of the complaint;</li> <li>(ii) the name, phone number and address of the complainant (unless the complainant wishes to remain anonymous);</li> <li>(iii) measures taken to respond to the complaint (including a record of the response provided to the complainant) or confirmation of no action if deemed appropriate;</li> <li>(iv) the outcome of the investigation into the complaint; and</li> <li>(v) any other activities in the area, unrelated to the Project that may have contributed to the complaint, such as non-project construction, fires, traffic accidents or unusually dusty conditions generally.</li> </ul> <p>(b) A copy of the Complaints Register required by this condition shall be made available to the Manager upon request as soon as practicable after the request is made.</p>
NoRs 1, 2, 3 and 4a	17.	<p><b>Cultural Monitoring Plan</b></p> <p>(a) A Cultural Monitoring Plan shall be prepared prior to the Start of Construction.</p> <p>(b) At least six (6) months prior to the start of detailed design, a Suitably Qualified and Experienced Person(s) identified in partnership with Mana Whenua shall commence the preparation of the Cultural Monitoring Plan.</p> <p>(c) The objective of the Cultural Monitoring Plan is to identify methods for undertaking cultural monitoring to assist with management of any cultural effects during Construction Works.</p> <p>(d) The Cultural Monitoring Plan shall include:</p> <ul style="list-style-type: none"> <li>(i) requirements for formal dedication or cultural interpretation to be undertaken prior to start of Construction Works in areas identified as having significance to Mana Whenua;</li> <li>(ii) requirements and protocols for cultural inductions for contractors and subcontractors;</li> <li>(iii) identification of activities, sites and areas where cultural monitoring is required during particular Construction Works;</li> <li>(iv) identification of personnel to undertake cultural monitoring, including any geographic definition of their responsibilities;</li> <li>(v) details of the preferred Accidental Discovery Protocol; and</li> <li>(vi) details of personnel to assist with management of any cultural effects identified during cultural monitoring, including implementation of the Accidental Discovery Protocol.</li> </ul> <p>(e) If Enabling Works involving soil disturbance are undertaken prior to the start of Construction Works, an Enabling Works Cultural Monitoring Plan shall be prepared by a Suitably Qualified and Experienced Person identified in collaboration with Mana Whenua. This plan may be prepared as a standalone Enabling Works Cultural Monitoring Plan or be included in the main Construction Works Cultural Monitoring Plan.</p> <p><b>Advice Note:</b>  <i>Where appropriate, the Cultural Monitoring Plan shall align with the requirements of other conditions of the designation and resource consents for the Project which require monitoring during Construction Works.</i></p>
NoRs 1, 2, 3 and 4a	18.	<p><b>Construction Traffic Management Plan (CTMP)</b></p> <p>(a) A CTMP shall be prepared prior to the Start of Construction for a Stage of Work.</p> <p>(b) The objective of the CTMP is to avoid, remedy or mitigate, as far as practicable, adverse construction traffic effects. To achieve this objective, the CTMP shall include:</p> <ul style="list-style-type: none"> <li>(i) methods to manage the effects of temporary traffic management activities on traffic;</li> </ul>

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		<ul style="list-style-type: none"> <li>(ii) measures to ensure the safety of all transport users;</li> <li>(iii) the estimated numbers, frequencies, routes and timing of traffic movements, including any specific non-working or non-movement hours to manage vehicular and pedestrian traffic near schools or to manage traffic congestion;</li> <li>(iv) site access routes and access points for heavy vehicles, the size and location of parking areas for plant, construction vehicles and the vehicles of workers and visitors;</li> <li>(v) identification of detour routes and other methods to ensure the safe management and maintenance of traffic flows, including pedestrians and cyclists, on existing roads;</li> <li>(vi) methods to maintain vehicle access to property and/or private roads where practicable, or to provide alternative access arrangements when it will not be;</li> <li>(vii) the management approach to loads on heavy vehicles, including covering loads of fine material, the use of wheel-wash facilities at site exit points and the timely removal of any material deposited or spilled on public roads; and</li> <li>(viii) methods that will be undertaken to communicate traffic management measures to affected road users (e.g. residents / public / stakeholders / emergency services).</li> </ul>																																																										
<b>NoR 1, 2, 3 and 4a</b>	<b>19.</b>	<p><b>Construction Noise Standards</b></p> <p>(a) Construction noise shall be measured and assessed in accordance with NZS6803:1999 Acoustics – Construction Noise and shall comply with the noise standards set out in the following table as far as practicable:</p> <p><b>Table 19.1: Construction noise standards</b></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 25%;">Day of week</th> <th style="width: 25%;">Time period</th> <th style="width: 25%;">L<sub>Aeq</sub>(15min)</th> <th style="width: 25%;">L<sub>A</sub>F<sub>max</sub></th> </tr> </thead> <tbody> <tr> <td colspan="4"><b>Occupied activity sensitive to noise</b></td> </tr> <tr> <td rowspan="4">Weekday</td> <td>0630h - 0730h</td> <td>55 dB</td> <td>75 dB</td> </tr> <tr> <td>0730h - 1800h</td> <td>70 dB</td> <td>85 dB</td> </tr> <tr> <td>1800h - 2000h</td> <td>65 dB</td> <td>80 dB</td> </tr> <tr> <td>2000h - 0630h</td> <td>45 dB</td> <td>75 dB</td> </tr> <tr> <td rowspan="4">Saturday</td> <td>0630h - 0730h</td> <td>55 dB</td> <td>75 dB</td> </tr> <tr> <td>0730h - 1800h</td> <td>70 dB</td> <td>85 dB</td> </tr> <tr> <td>1800h - 2000h</td> <td>45 dB</td> <td>75 dB</td> </tr> <tr> <td>2000h - 0630h</td> <td>45 dB</td> <td>75 dB</td> </tr> <tr> <td rowspan="4">Sunday and Public Holidays</td> <td>0630h - 0730h</td> <td>45 dB</td> <td>75 dB</td> </tr> <tr> <td>0730h - 1800h</td> <td>55 dB</td> <td>85 dB</td> </tr> <tr> <td>1800h - 2000h</td> <td>45 dB</td> <td>75 dB</td> </tr> <tr> <td>2000h - 0630h</td> <td>45 dB</td> <td>75 dB</td> </tr> <tr> <td colspan="4"><b>Other occupied buildings</b></td> </tr> <tr> <td rowspan="2">All</td> <td>0730h – 1800h</td> <td>70 dB</td> <td></td> </tr> <tr> <td>1800h – 0730h</td> <td>75 dB</td> <td></td> </tr> </tbody> </table> <p>(b) Where compliance with the noise standards set out in Table 19.1 is not practicable, and unless otherwise provided for in the CNVMP, then the methodology in Condition 22 shall apply.</p>	Day of week	Time period	L <sub>Aeq</sub> (15min)	L <sub>A</sub> F <sub>max</sub>	<b>Occupied activity sensitive to noise</b>				Weekday	0630h - 0730h	55 dB	75 dB	0730h - 1800h	70 dB	85 dB	1800h - 2000h	65 dB	80 dB	2000h - 0630h	45 dB	75 dB	Saturday	0630h - 0730h	55 dB	75 dB	0730h - 1800h	70 dB	85 dB	1800h - 2000h	45 dB	75 dB	2000h - 0630h	45 dB	75 dB	Sunday and Public Holidays	0630h - 0730h	45 dB	75 dB	0730h - 1800h	55 dB	85 dB	1800h - 2000h	45 dB	75 dB	2000h - 0630h	45 dB	75 dB	<b>Other occupied buildings</b>				All	0730h – 1800h	70 dB		1800h – 0730h	75 dB	
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NoR 1, 2, 3 and 4a	20.	<p><b>Construction Vibration Standards</b></p> <p>(a) Construction vibration shall be measured in accordance with ISO 4866:2010 Mechanical vibration and shock – Vibration of fixed structures – Guidelines for the measurement of vibrations and evaluation of their effects on structures and shall comply with the vibration standards set out in the following table as far as practicable.</p> <p><b>Table 20.1 Construction vibration criteria</b></p> <table border="1"> <thead> <tr> <th>Receiver</th> <th>Details</th> <th>Category A</th> <th>Category B</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Occupied Activities sensitive to noise</td> <td>Night-time 2000h - 0630h</td> <td>0.3mm/s ppv</td> <td>2mm/s ppv</td> </tr> <tr> <td>Daytime 0630h - 2000h</td> <td>2mm/s ppv</td> <td>5mm/s ppv</td> </tr> <tr> <td>Other occupied buildings</td> <td>Daytime 0630h - 2000h</td> <td>2mm/s ppv</td> <td>5mm/s ppv</td> </tr> <tr> <td>All other buildings</td> <td>At all other times</td> <td colspan="2">Tables 1 and 3 of DIN4150-3:1999</td> </tr> </tbody> </table> <p><i>*Category A criteria adopted from Rule E25.6.30.1 of the AUP</i></p> <p><i>**Category B criteria based on DIN 4150-3:1999 building damage criteria for daytime</i></p> <p>(b) Where compliance with the vibration standards set out in Table 20.1 is not practicable, and unless otherwise provided for in the CNVMP as required by Condition 21(c)((x)), then the methodology in Condition 22 shall apply.</p>	Receiver	Details	Category A	Category B	Occupied Activities sensitive to noise	Night-time 2000h - 0630h	0.3mm/s ppv	2mm/s ppv	Daytime 0630h - 2000h	2mm/s ppv	5mm/s ppv	Other occupied buildings	Daytime 0630h - 2000h	2mm/s ppv	5mm/s ppv	All other buildings	At all other times	Tables 1 and 3 of DIN4150-3:1999	
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NoR 1, 2, 3 and 4a	21.	<p><b>Construction Noise and Vibration Management Plan (CNVMP)</b></p> <p>(a) A CNVMP shall be prepared prior to the Start of Construction for a Stage of Work.</p> <p>(b) A CNVMP shall be implemented during the Stage of Work to which it relates.</p> <p>(c) The objective of the CNVMP is to provide a framework for the development and implementation of the Best Practicable Option for the management of construction noise and vibration effects to achieve the construction noise and vibration standards set out in Conditions 19 and 20 to the extent practicable. To achieve this objective, the CNVMP shall be prepared in accordance with Annex E2 of the New Zealand Standard NZS6803:1999 Acoustics – Construction Noise and shall as a minimum, address the following:</p> <ul style="list-style-type: none"> <li>(i) description of the works and anticipated equipment/processes;</li> <li>(ii) hours of operation, including times and days when construction activities would occur;</li> <li>(iii) the construction noise and vibration standards for the Project;</li> <li>(iv) identification of receivers where noise and vibration standards apply;</li> <li>(v) a hierarchy of management and mitigation options, including any requirements to limit night works and works during other sensitive times, including Sundays and public holidays as far practicable;</li> <li>(vi) methods and frequency for monitoring and reporting on construction noise and vibration;</li> <li>(vii) procedures for communication and engagement with nearby residents and stakeholders, including notification of proposed construction activities, the period of construction activities, and management of noise and vibration complaints;</li> <li>(viii) contact details of the Project Liaison Person;</li> <li>(ix) procedures for the regular training of the operators of construction equipment to minimise noise and vibration as well as expected construction site behaviours for all workers;</li> </ul>																			

NoR No.	No.	
		<ul style="list-style-type: none"> <li>(x) identification of areas where compliance with the noise (Condition 19) and/or vibration standards (Condition 20 Category A or Category B) will not be practicable and the specific management controls to be implemented and consultation requirements with owners and occupiers of affected sites;</li> <li>(xi) procedures and requirements for the preparation of a Schedule to the CNVMP (Schedule) for those areas where compliance with the noise (Condition 19) and/or vibration standards (Condition 20 Category B) will not be practicable and where sufficient information is not available at the time of the CNVMP to determine the area specific management controls Condition 21(c)(x);</li> <li>(xii) procedures for: <ul style="list-style-type: none"> <li>A. communicating with affected receivers, where measured or predicted vibration from construction activities exceeds the vibration criteria of Condition 20; and</li> <li>B. assessing, mitigating and monitoring vibration where measured or predicted vibration from construction activities exceeds the Category A vibration criteria of Condition 20, including the requirement to undertake building condition surveys before and after works to determine whether any damage has occurred as a result of construction vibration.</li> </ul> </li> <li>(xiii) requirements for review and update of the CNVMP.</li> </ul>
<b>NoR 1, 2, 3 and 4a</b>	<b>22.</b>	<p><b>Schedule to a CNVMP</b></p> <p>(a) Unless otherwise provided for in a CNVMP, a Schedule to the CNVMP (Schedule) shall be prepared prior to the start of the construction to which it relates by a Suitably Qualified and Experienced Person, in consultation with the owners and occupiers of sites subject to the Schedule, when:</p> <ul style="list-style-type: none"> <li>(i) construction noise is either predicted or measured to exceed the noise standards in Condition 19, except where the exceedance of the <math>L_{Aeq}</math> criteria is no greater than 5 decibels and does not exceed: <ul style="list-style-type: none"> <li>A. 0630 – 2000: 2 periods of up to 2 consecutive weeks in any 2 months; or</li> <li>B. 2000 – 0630: 1 period of up to 2 consecutive nights in any 10 days.</li> </ul> </li> <li>(ii) construction vibration is either predicted or measured to exceed the Category B standard at the receivers in Condition 20.</li> </ul> <p>(b) The objective of the Schedule is to set out the Best Practicable Option measures to manage noise and/or vibration effects of the construction activity beyond those measures set out in the CNVMP. The Schedule shall include details such as:</p> <ul style="list-style-type: none"> <li>(i) construction activity location, start and finish dates;</li> <li>(ii) the nearest neighbours to the construction activity;</li> <li>(iii) the predicted noise and/or vibration level for all receivers where the levels are predicted or measured to exceed the applicable standards and predicted duration of the exceedance;</li> <li>(iv) the proposed mitigation options that have been selected, and the options that have been discounted as being impracticable and the reasons why;</li> <li>(v) the consultation undertaken with owners and occupiers of sites subject to the Schedule, and how consultation has and has not been taken into account; and</li> <li>(vi) location, times and types of monitoring.</li> </ul> <p>(c) The Schedule shall be submitted to the Manager for certification at least 5 working days (except in unforeseen circumstances) in advance of Construction Works that are covered by the scope of the Schedule and shall form part of the CNVMP.</p>

NoR No.	No.	
		(d) Where material changes are made to a Schedule required by this condition, the Requiring Authority shall consult the owners and/or occupiers of sites subject to the Schedule prior to submitting the amended Schedule to the Manager for certification in accordance with (c) above. The amended Schedule shall document the consultation undertaken with those owners and occupiers, and how consultation outcomes have and have not been taken into account.
NoRs 1, 2, 3 and 4a	23.	<p><b>Historic Heritage Management Plan (HHMP)</b></p> <p>(a) A HHMP shall be prepared in consultation with Council, HNZPT and Mana Whenua prior to the Start of Construction for a Stage of Work.</p> <p>(b) The objective of the HHMP is to protect historic heritage and to remedy and mitigate any residual effects as far as practicable. To achieve the objective, the HHMP shall identify:</p> <ul style="list-style-type: none"> <li>(i) any adverse direct and indirect effects on historic heritage sites and measures to appropriately avoid, remedy or mitigate any such effects, including a tabulated summary of these effects and measures;</li> <li>(ii) methods for the identification and assessment of potential historic heritage places within the Designation to inform detailed design;</li> <li>(iii) known historic heritage places and potential archaeological sites within the Designation, including identifying any archaeological sites for which an Archaeological Authority under the HNZPTA will be sought or has been granted;</li> <li>(iv) any unrecorded archaeological sites or post-1900 heritage sites within the Designation, which shall also be documented and recorded;</li> <li>(v) roles, responsibilities and contact details of Project personnel, Council and HNZPT representatives, Mana Whenua representatives, and relevant agencies involved with heritage and archaeological matters including surveys, monitoring of Construction Works, compliance with AUP accidental discovery rule, and monitoring of conditions;</li> <li>(vi) specific areas to be investigated, monitored and recorded to the extent these are directly affected by the Project;</li> <li>(vii) the proposed methodology for investigating and recording post-1900 historic heritage sites (including buildings) that need to be destroyed, demolished or relocated, including details of their condition, measures to mitigate any adverse effects and timeframe for implementing the proposed methodology, in accordance with the HNZPT Archaeological Guidelines Series No.1: Investigation and Recording of Buildings and Standing Structures (November 2018), or any subsequent version;</li> <li>(viii) methods to acknowledge cultural values identified through the Mana Whenua Partnership Forum (Condition 10) and Urban and Landscape Design Management Plan (Condition 13) where archaeological sites also involve ngā taonga tuku iho (treasures handed down by our ancestors) and where feasible and practicable to do so;</li> <li>(ix) methods for avoiding, remedying or mitigation adverse effects on historic heritage places and sites within the Designation during Construction Works as far as practicable. These methods shall include, but are not limited to: <ul style="list-style-type: none"> <li>A. security fencing or hoardings around historic heritage places to protect them from damage during construction or unauthorised access.</li> </ul> </li> <li>(x) measures to mitigate adverse effects on historic heritage sites that achieve positive historic heritage outcomes such as increased public awareness and interpretation signage; and</li> <li>(xi) training requirements and inductions for contractors and subcontractors on historic heritage places within the Designation, legal obligations relating to accidental discoveries and the AUP Accidental Discovery Rule (E11.6.1). The training shall be undertaken prior to the Start of Construction, under the guidance of a Suitably Qualified and Experienced Person and Mana Whenua representatives (to the extent the training relates to cultural values identified under Condition 17.</li> </ul>

NoR No.	No.	
		<p>(c) Electronic copies of all historic heritage reports relating to historic heritage investigations (evaluation, excavation and monitoring), shall be submitted to the Manager within 12 months of completion.</p> <p><b>Accidental Discoveries</b></p> <p><b>Advice Note:</b></p> <p><i>The requirements for accidental discoveries of heritage items are set out in Rule E11.6.1 of the AUP.</i></p>
NoRs 1, 2, 3 and 4a	24.	<p><b>Pre-Construction Ecological Survey</b></p> <p>(a) At the start of detailed design for a Stage of Work, an updated ecological survey shall be undertaken by a Suitably Qualified and Experienced Person. The purpose of the survey is to inform the detailed design of ecological management by:</p> <ul style="list-style-type: none"> <li>(i) confirming whether the species of value within the Identified Biodiversity Areas recorded in Schedule 3 are still present; and</li> <li>(ii) confirming whether the project will or may have a moderate or greater level of ecological effect on ecological species of value, prior to implementation of impact management measures, as determined in accordance with the EIANZ guidelines (or any subsequent updated version).</li> </ul> <p>(b) Mana Whenua shall be invited as partners to observe how the ecological survey in (a) will be undertaken.</p> <p>(c) If the ecological survey in (a) above confirms the presence of ecological species of value in accordance with Condition 24(a)(i) and that effects are likely in accordance with Condition 24(a)(ii), then an Ecological Management Plan (or Plans) shall be prepared in accordance with Condition 25 for these areas (Confirmed Biodiversity Areas).</p>
NoRs 1, 2, 3 and 4a	25.	<p><b>Ecological Management Plan (EMP)</b></p> <p>(a) An EMP shall be prepared for any Confirmed Biodiversity Areas (confirmed through Condition 24) prior to the Start of Construction for a Stage of Work. The objective of the EMP is to minimise impacts of the Project on the ecological values of Confirmed Biodiversity Areas as far as practicable. The EMP shall set out the methods that will be used to achieve the objective which may include:</p> <ul style="list-style-type: none"> <li>(i) if an EMP is required in accordance with Condition 24(b) for the presence of long-tailed bats: <ul style="list-style-type: none"> <li>A. measures to minimise disturbance from construction activities within the vicinity of any active roosts that are discovered until such roosts are confirmed to be vacant of bats;</li> <li>B. how the timing of any construction work in the vicinity of any maternity long tail bat roosts will be limited to outside the bat maternity period (between December and March) where reasonably practicable;</li> <li>C. details of areas where vegetation is to be retained where practicable for the purposes of the connectivity of long tailed bats;</li> <li>D. details of how bat connectivity will be provided and maintained (e.g. through the presence of suitable indigenous, or exotic trees or artificial alternatives) will be provided and maintained; and</li> <li>E. where mitigation isn't practicable, details of any offsetting proposed.</li> </ul> </li> <li>(ii) If an EMP is required in accordance with Condition 24(b) for the presence of Threatened or At-Risk birds (excluding Wetland Birds):</li> </ul>

NoR No.	No.	
		<p>A. how the timing of any Construction Works shall be undertaken outside of the bird breeding season (September to February) where practicable;</p> <p>B. where Pipit are identified as being present, how the timing of any Construction Works shall be undertaken outside of the Pipit bird breeding season (August to February) where practicable;</p> <p>C. where works are required within the Confirmed Biodiversity Area during the bird breeding season (including Pipits), methods to minimise adverse effects on Threatened or At-Risk birds; and</p> <p>D. details of grass maintenance if Pipit are present.</p> <p>(iii) If an EMP is required in accordance with Condition 24(b) for the presence of Threatened or At-Risk wetland birds:</p> <p>A. how the timing of any Construction Works shall be undertaken outside of the bird breeding season (September to February) where practicable;</p> <p>B. where works are required within the Confirmed Biodiversity Area during the bird breeding season, methods to minimise adverse effects on Threatened or At-Risk wetland birds</p> <p>C. undertaking a nesting bird survey of Threatened or At-Risk wetland birds prior to any Construction Works taking place within a 50m radius of any identified Wetlands (including establishment of construction areas adjacent to Wetlands). Surveys should be repeated at the beginning of each wetland bird breeding season and following periods of construction inactivity;</p> <p>D. what protection and buffer measures will be provided where nesting Threatened or At-Risk wetland birds are identified within 50m of any construction area (including laydown areas). Measures could include:</p> <ul style="list-style-type: none"> <li>a. a 20m buffer area around the nest location and retaining vegetation. The buffer areas should be demarcated where necessary to protect birds from encroachment. This might include the use of marker poles, tape and signage;</li> <li>b. monitoring of the nesting Threatened or At-Risk wetland birds by a Suitably Qualified and Experienced Person. Construction works within the 20m nesting buffer areas should not occur until the Threatened or At-Risk wetland birds have fledged from the nest location (approximately 30 days from egg laying to fledging) as confirmed by a Suitably Qualified and Experienced Person; and</li> <li>c. minimising the disturbance from the works if construction works are required within 50m of a nest, as advised by a Suitably Qualified and Experienced Person.</li> </ul> <p>E. adopting a 10m setback where practicable, between the edge of wetlands and construction areas (along the edge of the stockpile/laydown area); and</p> <p>F. minimising light spill from construction areas into wetlands.</p> <p>(b) The EMP shall be consistent with any ecological management measures to be undertaken in compliance with conditions of any regional resource consents granted for the Project.</p>

NoR No.	No.	
		<p>(c) Where appropriate, and in partnership with Mana Whenua, flora and fauna values identified in the ULDMP are reflected and included within this EMP.</p> <p><b>Advice Note:</b></p> <p><i>Depending on the potential effects of the Project, the regional consents for the Project may include the following monitoring and management plans:</i></p> <p>(i) Stream and/or wetland restoration plans;</p> <p>(ii) Vegetation restoration plans; and</p> <p>(iii) Fauna management plans (e.g. avifauna, herpetofauna, bats).</p>
NoRs 1, 2, 3	26.	<p><b>Tree Management Plan</b></p> <p>(a) Prior to the Start of Construction for a Stage of Work, a Tree Management Plan shall be prepared.</p> <p>(b) The objective of the Tree Management Plan is to avoid, remedy or mitigate effects of construction activities on trees identified in Schedule 4.</p> <p>(c) The Tree Management Plan shall:</p> <p>(i) confirm that the trees listed in Schedule 4 still exist; and</p> <p>(ii) demonstrate how the design and location of project works has avoided, remedied or mitigated any effects on any tree listed in Schedule 4. This may include:</p> <p>A. planting to replace trees that require removal (with reference to the ULDMP planting design details in Condition 13;</p> <p>B. tree protection zones and tree protection measures such as protective fencing, ground protection and physical protection of roots, trunks and branches; and</p> <p>C. methods for work within the rootzone of trees that are to be retained in line with accepted arboricultural standards.</p> <p>(iii) demonstrate how the tree management measures (outlined in A – C above) are consistent with conditions of any resource consents granted for the project in relation to managing construction effects on trees.</p>
NoRs 1, 2, 3 and 4a	27.	<p><b>Network Utility Management Plan (NUMP)</b></p> <p>(a) A NUMP shall be prepared prior to the Start of Construction for a Stage of Work.</p> <p>(b) The objective of the NUMP is to set out a framework for protecting, relocating and working in proximity to existing network utilities. The NUMP shall include methods to:</p> <p>(i) provide access for maintenance at all reasonable times, or emergency works at all times during construction activities;</p> <p>(ii) manage the effects of dust and any other material potentially resulting from construction activities and able to cause material damage, beyond normal wear and tear to overhead transmission lines in the Project area; and</p> <p>(iii) demonstrate compliance with relevant standards and Codes of Practice including, where relevant, the NZECP 34:2001 New Zealand Electrical Code of Practice for Electrical Safe Distances 2001; AS/NZS 4853:2012 Electrical Hazards on Metallic Pipelines; and AS/NZS 2885 Pipelines – Gas and Liquid Petroleum.</p> <p>(c) The NUMP shall be prepared in consultation with the relevant Network Utility Operator(s) (including Auckland International Airport Limited) who have existing assets that are directly affected by the Project.</p> <p>(d) The development of the NUMP shall consider opportunities to coordinate future work programmes with other Network Utility Operator(s) where practicable.</p>



NoR No.	No.	
		<p>(e) The NUMP shall describe how any comments from the Network Utility Operator (including Auckland International Airport Limited) in relation to its assets have been addressed.</p> <p>(f) Any comments received from the Network Utility Operator (including Auckland International Airport Limited) shall be considered when finalising the NUMP.</p> <p>(g) Any amendments to the NUMP related to the assets of a Network Utility Operator (including Auckland International Airport Limited) shall be prepared in consultation with that asset owner.</p>
<b>Operational Conditions</b>		
<b>NoRs 1, 2, 3 and 4a</b>	<b>28.</b>	<p><b>Low Noise Road Surface</b></p> <p>(a) Asphaltic concrete surfacing (or equivalent low noise road surface) shall be implemented within 12 months of Completion of Construction of the project.</p> <p>(b) Any future resurfacing works of the Project shall be undertaken in accordance with the Auckland Transport Reseal Guidelines, Asset Management and Systems 2013 or any updated version and asphaltic concrete surfacing (or equivalent low noise road surface) shall be implemented where:</p> <ul style="list-style-type: none"> <li>(i) the volume of traffic exceeds 10,000 vehicles per day; or</li> <li>(ii) the road is subject to high wear and tear (such as cul de sac heads, roundabouts and main road intersections); or</li> <li>(iii) it is in an industrial or commercial area where there is a high concentration of truck traffic; or</li> <li>(iv) it is subject to high usage by pedestrians, such as town centres, hospitals, shopping centres and schools.</li> </ul> <p>(c) Prior to commencing any future resurfacing works, the Requiring Authority shall advise the Manager if any of the triggers in Condition 28(b)(i) – (iv) are not met by the road or a section of it and therefore where the application of asphaltic concrete surfacing (or equivalent low noise road surface) is no longer required on the road or a section of it. Such advice shall also indicate when any resealing is to occur.</p>
<b>NoRs 1, 2, 3 and 4a</b>	<b>29.</b>	<p><b>Traffic Noise</b></p> <p>For the purposes of Conditions 30 to 41:</p> <ul style="list-style-type: none"> <li>(a) Building-Modification Mitigation – has the same meaning as in NZS 6806;</li> <li>(b) Design year has the same meaning as in NZS 6806;</li> <li>(c) Detailed Mitigation Options – means the fully detailed design of the Selected Mitigation Options, with all practical issues addressed;</li> <li>(d) Habitable Space – has the same meaning as in NZS 6806;</li> <li>(e) Identified Noise Criteria Category – means the Noise Criteria Category for a PPF identified in Schedule 2: Identified PPFs Noise Criteria Categories;</li> <li>(f) Mitigation – has the same meaning as in NZS 6806:2010 Acoustics – Road-traffic noise – New and altered roads;</li> <li>(g) Noise Criteria Categories – means the groups of preference for sound levels established in accordance with NZS 6806 when determining the Best Practicable Option for noise mitigation (i.e. Categories A, B and C);</li> <li>(h) NZS 6806 – means New Zealand Standard NZS 6806:2010 Acoustics – Road-traffic noise – New and altered roads;</li> <li>(i) Protected Premises and Facilities (PPFs) – means only the premises and facilities identified in green, orange or red in Schedule 2: Identified PPFs Noise Criteria Categories;</li> <li>(j) Selected Mitigation Options – means the preferred mitigation option resulting from a Best Practicable Option assessment undertaken in accordance with NZS 6806 taking into account any low noise road surface to be implemented in accordance with Condition 28; and</li> </ul>

NoR No.	No.	
		(k) Structural Mitigation – has the same meaning as in NZS 6806.
<b>NoRs 1, 2, 3 and 4a</b>	<b>30.</b>	The Noise Criteria Categories identified in Schedule 2: Identified PPFs Noise Criteria Categories at each of the PPFs shall be achieved where practicable and subject to Conditions 29 to 41 (all traffic noise conditions).  Achievement of the Noise Criteria Categories for PPFs shall be by reference to a traffic forecast for a high growth scenario in a design year at least 10 years after the programmed opening of the Project.
<b>NoRs 1, 2, 3 and 4a</b>	<b>31.</b>	As part of the detailed design of the Project, a Suitably Qualified and Experienced Person shall determine the Selected Mitigation Options for the PPFs identified on Schedule 2: Identified PPFs Noise Criteria Categories.  For the avoidance of doubt, the low noise road surface implemented in accordance with Condition 28 may be (or be part of) the Selected Mitigation Option(s).
<b>NoRs 1, 2, 3 and 4a</b>	<b>32.</b>	Prior to construction of the Project, a Suitably Qualified and Experienced Person shall develop the Detailed Mitigation Options for the PPFs identified in Schedule 2: Identified PPFs Noise Criteria Categories, taking into account the Selected Mitigation Options.
<b>NoRs 1, 2, 3 and 4a</b>	<b>33.</b>	If the Detailed Mitigation Options would result in the Identified Noise Criteria Category changing to a less stringent Category, e.g. from Category A to B or Category B to C, at any relevant PPF, a Suitably Qualified and Experienced Person shall provide confirmation to the Manager that the Detailed Mitigation Option would be consistent with adopting the Best Practicable Option in accordance with NZS 6806 prior to implementation.
<b>NoRs 1, 2, 3 and 4a</b>	<b>34.</b>	The Detailed Mitigation Options shall be implemented prior to completion of construction of the Project.
<b>NoRs 1, 2, 3 and 4a</b>	<b>35.</b>	Prior to the Start of Construction, a Suitably Qualified and Experienced Person shall identify those PPFs which, following implementation of all the Detailed Mitigation Options, will not be Noise Criteria Categories A or B and where Building-Modification Mitigation might be required to achieve 40 dB L <sub>Aeq(24h)</sub> inside Habitable Spaces ('Category C Buildings').
<b>NoRs 1, 2, 3 and 4a</b>	<b>36.</b>	Prior to the Start of Construction in the vicinity of each Category C Building, the Requiring Authority shall write to the owner of the Category C Building requesting entry to assess the noise reduction performance of the existing building envelope. If the building owner agrees to entry within three months of the date of the Requiring Authority's letter, the Requiring Authority shall instruct a Suitably Qualified and Experienced Person to visit the building and assess the noise reduction performance of the existing building envelope.
<b>NoRs 1, 2, 3 and 4a</b>	<b>37.</b>	For each Category C Building identified, the Requiring Authority is deemed to have complied with Condition 36 above if:  (a) The Requiring Authority's Suitably Qualified and Experienced Person has visited the building and assessed the noise reduction performance of the building envelope; or  (b) The building owner agreed to entry, but the Requiring Authority could not gain entry for some reason (such as entry denied by a tenant); or  (c) The building owner did not agree to entry within three months of the date of the Requiring Authority's letter sent in accordance with Condition 36 above (including where the owner did not respond within that period); or  (d) The building owner cannot, after reasonable enquiry, be found prior to completion of construction of the Project.

NoR No.	No.	
		If any of (b) to (d) above apply to a Category C Building, the Requiring Authority is not required to implement Building-Modification Mitigation to that building.
<b>NoRs 1, 2, 3 and 4a</b>	<b>38.</b>	<p>Subject to Condition 37 above, within six months of the assessment undertaken in accordance with Conditions 36 and 37, the Requiring Authority shall write to the owner of each Category C Building advising:</p> <p>(a) If Building-Modification Mitigation is required to achieve 40 dB <math>L_{Aeq(24h)}</math> inside habitable spaces; and</p> <p>(b) The options available for Building-Modification Mitigation to the building, if required; and</p> <p>(c) That the owner has three months to decide whether to accept Building-Modification Mitigation to the building and to advise which option for Building-Modification Mitigation the owner prefers, if the Requiring Authority has advised that more than one option is available.</p>
<b>NoRs 1, 2, 3 and 4a</b>	<b>39.</b>	Once an agreement on Building-Modification Mitigation is reached between the Requiring Authority and the owner of a Category C Building, the mitigation shall be implemented, including any third party authorisations required, in a reasonable and practical timeframe agreed between the Requiring Authority and the owner.
<b>NoRs 1, 2, 3 and 4a</b>	<b>40.</b>	<p>Subject to Condition 37, where Building-Modification Mitigation is required, the Requiring Authority is deemed to have complied with Condition 39 if:</p> <p>(a) The Requiring Authority has completed Building Modification Mitigation to the building; or</p> <p>(b) An alternative agreement for mitigation is reached between the Requiring Authority and the building owner; or</p> <p>(c) The building owner did not accept the Requiring Authority's offer to implement Building-Modification Mitigation within three months of the date of the Requiring Authority's letter sent in accordance with Condition 37 (including where the owner did not respond within that period); or</p> <p>(d) The building owner cannot, after reasonable enquiry, be found prior to completion of construction of the Project.</p>
<b>NoRs 1, 2, 3 and 4a</b>	<b>41.</b>	The Detailed Mitigation Options shall be maintained so they retain their noise reduction performance as far as practicable.

## **Schedule 1: General accordance plans and information**

### **NoR 1**

The proposed work is for the construction, operation and maintenance of an upgrade to Te Irirangi Drive between Leixlep Lane and Rongomai Park to provide for a BRT corridor, walking and cycling facilities and associated infrastructure. The proposed work is shown in the following Concept Plan and includes:

- a) An upgrade of Te Irirangi Drive to accommodate centre-running BRT lanes, general traffic lanes, and walking and cycling facilities;
- b) Associated works including but not limited to intersections, bridges, embankments, retaining walls, culverts, stormwater management systems;
- c) Changes to local roads, where the proposed work intersects with local roads; and
- d) Construction activities, including vegetation removal, construction areas and the re-grading of driveways.

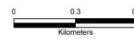
**Concept Plan:**



**LEGEND**

□ Designation

**NoR 1**

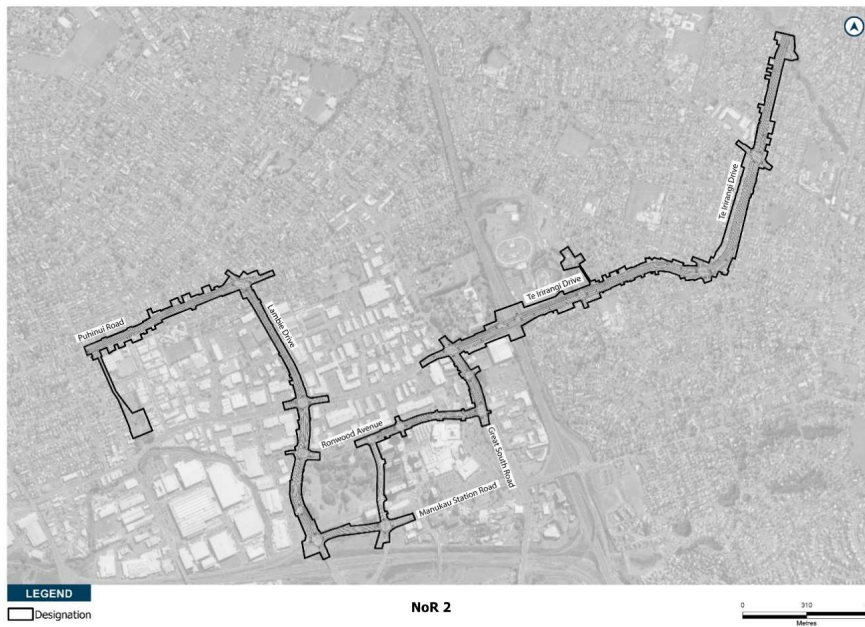


## **NoR 2**

The proposed work is for the construction, operation and maintenance of an upgrade to Te Irirangi Drive, Great South Road, Ronwood Avenue, Davies Avenue, Manukau Station Road and Lambie Drive between Rongomai Park and Plunket Avenue for a BRT corridor, walking and cycling facilities and associated infrastructure. The proposed work is shown in the following Concept Plan and includes:

- a) An upgrade of Te Irirangi Drive, Great South Road, Ronwood Avenue, Manukau Station Road and Lambie Drive to accommodate centre-running BRT lanes, general traffic lanes and walking and cycling facilities;
- b) An upgrade of Davies Avenue to accommodate BRT lanes, general traffic lane and walking and cycling facilities;
- c) Associated works including but not limited to intersections, bridges, embankments, retaining walls, culverts, stormwater management systems;
- d) Changes to local roads, where the proposed work intersects with local roads; and
- e) Construction activities, including vegetation removal, construction areas and the re-grading of driveways.

### **Concept Plan:**



### **NoR 3**

The proposed work is for the construction, operation and maintenance of an upgrade to Puhinui Road between Rongomai Park and Plunket Avenue for a BRT corridor, walking and cycling facilities and associated infrastructure. The proposed work is shown in the following Concept Plan and includes:

- a) An upgrade of Puhinui Road to accommodate centre-running BRT lanes, general traffic lanes and walking and cycling facilities;
- b) An upgrade of Cambridge Terrace, Bridge Street and Kenderdine Road to provide for walking and cycling facilities;
- c) Associated works including but not limited to intersections, bridges, embankments, retaining walls, culverts, stormwater management systems;
- d) A bridge crossing the North Island Main Trunk line to connect the BRT to Puhinui Station;
- e) Changes to local roads, where the proposed work intersects with local roads; and
- f) Construction activities, including vegetation removal, construction areas and the re-grading of driveways.

### **Concept Plan:**

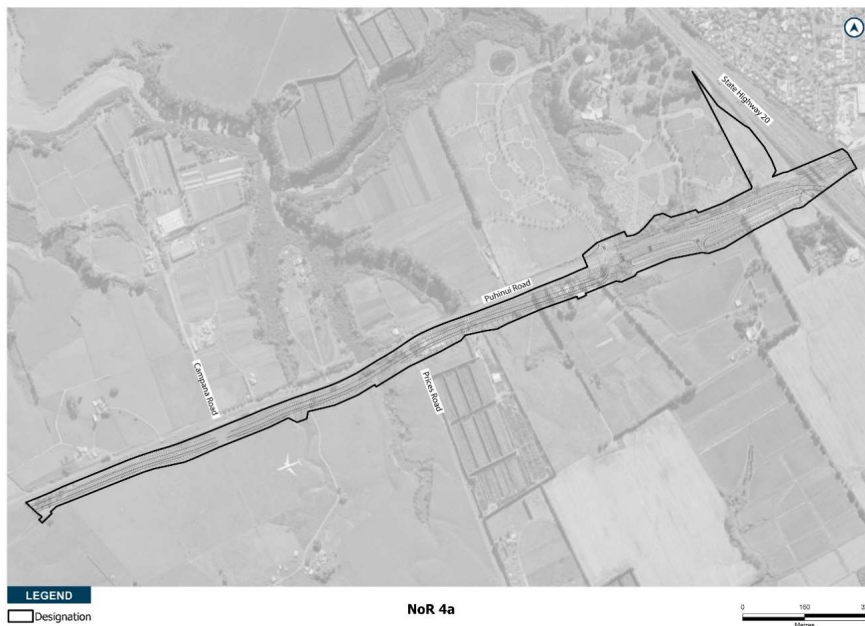


### **NoR 4a**

The proposed work is for the construction, operation and maintenance of an extension to Puhinui Road between the SH20/20B Interchange and Orrs Road for a BRT corridor, walking and cycling facilities and associated infrastructure. The proposed work is shown in the following Concept Plan and includes:

- a) An extension of Puhinui Road to accommodate BRT lanes (centre-running to Manukau Memorial Gardens, then south running to Orrs Road), general traffic lanes and walking and cycling facilities;
- b) Associated works including but not limited to intersections, bridges, embankments, retaining walls, culverts, stormwater management systems;
- c) Changes to local roads, where the proposed work intersects with local roads; and
- d) Construction activities, including vegetation removal, construction areas and the re-grading of driveways.

### **Concept Plan:**





**Schedule 2: Identified PPFs noise criteria categories**

**NoR 1**

<b>Address</b>	<b>New or Altered Road</b>	<b>Noise Criteria Category</b>
4 Aaronville Way	Altered	Category B
6 Aaronville Way	Altered	Category B
8 Aaronville Way	Altered	Category A
8 Aaronville Way	Altered	Category B
10 Aaronville Way	Altered	Category B
12 Aaronville Way	Altered	Category B
28 Accent Drive	Altered	Category A
28 Accent Drive	Altered	Category A
28 Accent Drive	Altered	Category A
28 Accent Drive	Altered	Category A
28 Accent Drive	Altered	Category A
36 Accent Drive	Altered	Category A
12 Aclare Place	Altered	Category A
14 Aclare Place	Altered	Category A
15 Aclare Place	Altered	Category A
16 Aclare Place	Altered	Category A
17 Aclare Place	Altered	Category A
17 Aclare Place	Altered	Category A
19 Aclare Place	Altered	Category A
21 Aclare Place	Altered	Category A
23 Aclare Place	Altered	Category C
25 Aclare Place	Altered	Category C
2 Adrigole Place	Altered	Category A
3 Ardkeen Place	Altered	Category A
5 Ardkeen Place	Altered	Category A
6 Ardkeen Place	Altered	Category A
7 Ardkeen Place	Altered	Category A
8 Ardkeen Place	Altered	Category A

9 Ardkeen Place	Altered	Category A
10 Ardkeen Place	Altered	Category A
11 Ardkeen Place	Altered	Category A
12 Ardkeen Place	Altered	Category A
13 Ardkeen Place	Altered	Category A
14 Ardkeen Place	Altered	Category B
15 Ardkeen Place	Altered	Category A
16 Ardkeen Place	Altered	Category B
17 Ardkeen Place	Altered	Category A
18 Ardkeen Place	Altered	Category B
19 Ardkeen Place	Altered	Category A
20 Ardkeen Place	Altered	Category B
22 Ardkeen Place	Altered	Category B
24 Ardkeen Place	Altered	Category B
26 Ardkeen Place	Altered	Category B
28 Ardkeen Place	Altered	Category B
30 Ardkeen Place	Altered	Category A
6 Ballydonegan Rise	Altered	Category A
7 Balrath Road	Altered	Category A
8 Balrath Road	Altered	Category A
9 Balrath Road	Altered	Category A
10 Balrath Road	Altered	Category A
11 Balrath Road	Altered	Category A
12 Balrath Road	Altered	Category B
1 Banville Road	Altered	Category A
2 Banville Road	Altered	Category B
3 Banville Road	Altered	Category A
5 Banville Road	Altered	Category A
7 Banville Road	Altered	Category A
2 Belinda Avenue	Altered	Category B
5 Belinda Avenue	Altered	Category A
6 Belinda Avenue	Altered	Category A

6 Belinda Avenue	Altered	Category A
7 Belinda Avenue	Altered	Category A
8 Belinda Avenue	Altered	Category A
9 Belinda Avenue	Altered	Category A
11 Belinda Avenue	Altered	Category A
5 Beragh Place	Altered	Category A
6 Beragh Place	Altered	Category A
7 Beragh Place	Altered	Category A
8 Beragh Place	Altered	Category A
9 Beragh Place	Altered	Category A
10 Beragh Place	Altered	Category A
11 Beragh Place	Altered	Category A
12 Beragh Place	Altered	Category A
2 Blowers Place	Altered	Category A
3 Blowers Place	Altered	Category A
4 Blowers Place	Altered	Category A
5 Blowers Place	Altered	Category A
6 Blowers Place	Altered	Category A
7 Blowers Place	Altered	Category A
8 Blowers Place	Altered	Category A
9 Blowers Place	Altered	Category A
10 Blowers Place	Altered	Category A
11 Blowers Place	Altered	Category A
13 Blowers Place	Altered	Category A
3 Boderg Way	Altered	Category A
4 Boderg Way	Altered	Category A
5 Boderg Way	Altered	Category A
6 Boderg Way	Altered	Category A
7 Boderg Way	Altered	Category A
8 Boderg Way	Altered	Category A
9 Boderg Way	Altered	Category A
10 Boderg Way	Altered	Category A

11 Boderg Way	Altered	Category A
12 Boderg Way	Altered	Category C
13 Boderg Way	Altered	Category A
15 Boderg Way	Altered	Category A
17 Boderg Way	Altered	Category A
19 Boderg Way	Altered	Category A
21 Boderg Way	Altered	Category B
3 Borris Close	Altered	Category A
5 Borris Close	Altered	Category A
6 Borris Close	Altered	Category A
7 Borris Close	Altered	Category A
8 Borris Close	Altered	Category A
9 Borris Close	Altered	Category A
10 Borris Close	Altered	Category A
11 Borris Close	Altered	Category B
5 Brinlack Drive	Altered	Category A
6 Brinlack Drive	Altered	Category A
7 Brinlack Drive	Altered	Category A
8 Brinlack Drive	Altered	Category A
9 Brinlack Drive	Altered	Category A
10 Brinlack Drive	Altered	Category A
11 Brinlack Drive	Altered	Category A
13 Brinlack Drive	Altered	Category A
15 Brinlack Drive	Altered	Category C
7 Brittass Place	Altered	Category A
9 Brittass Place	Altered	Category A
10 Brittass Place	Altered	Category A
11 Brittass Place	Altered	Category A
12 Brittass Place	Altered	Category A
13 Brittass Place	Altered	Category B
14 Brittass Place	Altered	Category A
16 Brittass Place	Altered	Category A

18 Brittas Place	Altered	Category B
7A Brittas Place	Altered	Category A
5 Brosna Place	Altered	Category A
7 Brosna Place	Altered	Category A
8 Brosna Place	Altered	Category A
9 Brosna Place	Altered	Category A
10 Brosna Place	Altered	Category A
11 Brosna Place	Altered	Category A
12 Brosna Place	Altered	Category A
14 Brosna Place	Altered	Category A
16 Brosna Place	Altered	Category A
14 Caltra Place	Altered	Category A
16 Caltra Place	Altered	Category A
17 Caltra Place	Altered	Category A
18 Caltra Place	Altered	Category A
19 Caltra Place	Altered	Category A
20 Caltra Place	Altered	Category A
21 Caltra Place	Altered	Category A
22 Caltra Place	Altered	Category A
23 Caltra Place	Altered	Category A
24 Caltra Place	Altered	Category B
26 Caltra Place	Altered	Category B
1 Cashmore Place	Altered	Category A
2 Cashmore Place	Altered	Category A
7 Chapletown Drive	Altered	Category A
9 Chapletown Drive	Altered	Category A
10 Chapletown Drive	Altered	Category A
11 Chapletown Drive	Altered	Category A
12 Chapletown Drive	Altered	Category A
13 Chapletown Drive	Altered	Category A
14 Chapletown Drive	Altered	Category A
15 Chapletown Drive	Altered	Category A

16 Chapletown Drive	Altered	Category A
17 Chapletown Drive	Altered	Category B
3 Clavoy Place	Altered	Category A
5 Clavoy Place	Altered	Category A
6 Clavoy Place	Altered	Category A
7 Clavoy Place	Altered	Category A
9 Clavoy Place	Altered	Category A
11 Clavoy Place	Altered	Category A
13 Clavoy Place	Altered	Category A
15 Clavoy Place	Altered	Category A
17 Clavoy Place	Altered	Category A
19 Clavoy Place	Altered	Category A
21 Clavoy Place	Altered	Category A
23 Clavoy Place	Altered	Category A
25 Clavoy Place	Altered	Category A
27 Clavoy Place	Altered	Category A
29 Clavoy Place	Altered	Category A
31 Clavoy Place	Altered	Category A
33 Clavoy Place	Altered	Category A
7 Coleraine Place	Altered	Category A
9 Coleraine Place	Altered	Category A
10 Coleraine Place	Altered	Category A
11 Coleraine Place	Altered	Category A
12 Coleraine Place	Altered	Category A
13 Coleraine Place	Altered	Category A
14 Coleraine Place	Altered	Category A
10A Coleraine Place	Altered	Category A
10 Corrofin Drive	Altered	Category A
12 Corrofin Drive	Altered	Category A
14 Corrofin Drive	Altered	Category A
16 Corrofin Drive	Altered	Category A
18 Corrofin Drive	Altered	Category A

20 Corrofin Drive	Altered	Category A
22 Corrofin Drive	Altered	Category A
24 Corrofin Drive	Altered	Category A
26 Corrofin Drive	Altered	Category A
28 Corrofin Drive	Altered	Category A
30 Corrofin Drive	Altered	Category A
32 Corrofin Drive	Altered	Category A
34 Corrofin Drive	Altered	Category A
36 Corrofin Drive	Altered	Category A
31 Craigavon Drive	Altered	Category A
32 Craigavon Drive	Altered	Category A
33 Craigavon Drive	Altered	Category A
34 Craigavon Drive	Altered	Category A
35 Craigavon Drive	Altered	Category A
8 Cratloe Lane	Altered	Category B
8 Cratloe Lane	Altered	Category B
424 East Tamaki Road	Altered	Category A
426 East Tamaki Road	Altered	Category A
2 Franco Lane	Altered	Category B
4 Franco Lane	Altered	Category B
6 Franco Lane	Altered	Category B
8 Franco Lane	Altered	Category B
10 Franco Lane	Altered	Category B
12 Franco Lane	Altered	Category B
8A Franco Lane	Altered	Category B
9 Gordal Place	Altered	Category A
10 Gordal Place	Altered	Category A
12 Gordal Place	Altered	Category A
13 Gordal Place	Altered	Category A
13 Gordal Place	Altered	Category A
15 Gordal Place	Altered	Category A
16 Gordal Place	Altered	Category A

18 Gordal Place	Altered	Category A
20 Gordal Place	Altered	Category A
8 Gransna Lane	Altered	Category A
10 Gransna Lane	Altered	Category A
12 Gransna Lane	Altered	Category B
14 Gransna Lane	Altered	Category A
16 Gransna Lane	Altered	Category B
18 Gransna Lane	Altered	Category B
20 Gransna Lane	Altered	Category B
22 Gransna Lane	Altered	Category A
24 Gransna Lane	Altered	Category B
40 Haven Drive	Altered	Category A
42 Haven Drive	Altered	Category A
44 Haven Drive	Altered	Category A
46 Haven Drive	Altered	Category A
48 Haven Drive	Altered	Category A
50 Haven Drive	Altered	Category A
52 Haven Drive	Altered	Category A
54 Haven Drive	Altered	Category A
4/29 Haven Drive	Altered	Category A
43-47 Haven Drive	Altered	Category A
8 Kalmore Place	Altered	Category A
9 Kalmore Place	Altered	Category A
10 Kalmore Place	Altered	Category A
11 Kalmore Place	Altered	Category A
12 Kalmore Place	Altered	Category A
13 Kalmore Place	Altered	Category A
14 Kalmore Place	Altered	Category A
15 Kalmore Place	Altered	Category A
16 Kalmore Place	Altered	Category A
2 Kanturk Close	Altered	Category A
3 Kanturk Close	Altered	Category B



4 Kanturk Close	Altered	Category B
1 Kellaway Drive	Altered	Category A
7 Kellaway Drive	Altered	Category A
11 Kellaway Drive	Altered	Category A
13 Kellaway Drive	Altered	Category A
15 Kellaway Drive	Altered	Category A
17 Kellaway Drive	Altered	Category A
21 Kellaway Drive	Altered	Category A
23 Kellaway Drive	Altered	Category A
33 Kellaway Drive	Altered	Category B
35 Kellaway Drive	Altered	Category B
41 Kellaway Drive	Altered	Category B
43 Kellaway Drive	Altered	Category B
45 Kellaway Drive	Altered	Category B
1/25 Kellaway Drive	Altered	Category A
2/25 Kellaway Drive	Altered	Category A
3/25 Kellaway Drive	Altered	Category A
1/27 Kellaway Drive	Altered	Category A
2/27 Kellaway Drive	Altered	Category A
3/27 Kellaway Drive	Altered	Category A
29-31 Kellaway Drive	Altered	Category B
2 Kilbaha Close	Altered	Category A
3 Kilbaha Close	Altered	Category A
4 Kilbaha Close	Altered	Category A
5 Kilbaha Close	Altered	Category A
6 Kilbaha Close	Altered	Category A
7 Kilbaha Close	Altered	Category A
8 Kilbaha Close	Altered	Category B
9 Kilbaha Close	Altered	Category A
10 Kilbaha Close	Altered	Category B
11 Kilbaha Close	Altered	Category A
12 Kilbaha Close	Altered	Category B

13 Kilbaha Close	Altered	Category B
2A Kilbaha Close	Altered	Category A
2 Kippure Close	Altered	Category A
3 Kippure Close	Altered	Category A
4 Kippure Close	Altered	Category B
4 Kippure Close	Altered	Category A
5 Kippure Close	Altered	Category A
7 Kippure Close	Altered	Category B
4 Leixlep Lane	Altered	Category B
4 Leixlep Lane	Altered	Category B
4 Leixlep Lane	Altered	Category A
6 Leixlep Lane	Altered	Category B
8 Leixlep Lane	Altered	Category B
10 Leixlep Lane	Altered	Category B
12 Leixlep Lane	Altered	Category B
14 Leixlep Lane	Altered	Category B
16 Leixlep Lane	Altered	Category B
18 Leixlep Lane	Altered	Category B
20 Leixlep Lane	Altered	Category B
2 Leneford Drive	Altered	Category B
4 Leneford Drive	Altered	Category B
6 Leneford Drive	Altered	Category B
8 Leneford Drive	Altered	Category B
10 Leneford Drive	Altered	Category B
12 Leneford Drive	Altered	Category B
14 Leneford Drive	Altered	Category B
16 Leneford Drive	Altered	Category B
18 Leneford Drive	Altered	Category A
20 Leneford Drive	Altered	Category A
22 Leneford Drive	Altered	Category A
24 Leneford Drive	Altered	Category A
26 Leneford Drive	Altered	Category A

28 Leneford Drive	Altered	Category A
30 Leneford Drive	Altered	Category A
32 Leneford Drive	Altered	Category A
2 Marlon Lane	Altered	Category B
4 Marlon Lane	Altered	Category B
6 Marlon Lane	Altered	Category B
8 Marlon Lane	Altered	Category B
4A Marlon Lane	Altered	Category B
8 Matarangi Road	Altered	Category A
9 Matarangi Road	Altered	Category A
10 Matarangi Road	Altered	Category A
11 Matarangi Road	Altered	Category A
12 Matarangi Road	Altered	Category A
13 Matarangi Road	Altered	Category A
14 Matarangi Road	Altered	Category A
15 Matarangi Road	Altered	Category A
16 Matarangi Road	Altered	Category A
17 Matarangi Road	Altered	Category A
18 Matarangi Road	Altered	Category A
19 Matarangi Road	Altered	Category A
20 Matarangi Road	Altered	Category A
21 Matarangi Road	Altered	Category A
23 Matarangi Road	Altered	Category A
25 Matarangi Road	Altered	Category A
27 Matarangi Road	Altered	Category A
29 Matarangi Road	Altered	Category A
30 Matarangi Road	Altered	Category C
8A Matarangi Road	Altered	Category A
35 Medvale Avenue	Altered	Category A
37 Medvale Avenue	Altered	Category A
39 Medvale Avenue	Altered	Category A
41 Medvale Avenue	Altered	Category A

42 Michael Jones Drive	Altered	Category A
48 Michael Jones Drive	Altered	Category A
50 Michael Jones Drive	Altered	Category A
52 Michael Jones Drive	Altered	Category A
54 Michael Jones Drive	Altered	Category A
56 Michael Jones Drive	Altered	Category A
58 Michael Jones Drive	Altered	Category A
60 Michael Jones Drive	Altered	Category A
62 Michael Jones Drive	Altered	Category A
64 Michael Jones Drive	Altered	Category A
66 Michael Jones Drive	Altered	Category A
68 Michael Jones Drive	Altered	Category A
72 Michael Jones Drive	Altered	Category A
76 Michael Jones Drive	Altered	Category A
1 Mika Court	Altered	Category A
2 Mika Court	Altered	Category A
3 Mika Court	Altered	Category B
4 Mika Court	Altered	Category B
5 Mika Court	Altered	Category A
7 Mika Court	Altered	Category A
9 Mika Court	Altered	Category C
8 Monash Place	Altered	Category A
9 Monash Place	Altered	Category A
10 Monash Place	Altered	Category A
11 Monash Place	Altered	Category A
12 Monash Place	Altered	Category A
13 Monash Place	Altered	Category A
14 Monash Place	Altered	Category A
15 Monash Place	Altered	Category A
16 Monash Place	Altered	Category A
2 Moravale Lane	Altered	Category B
3 Moravale Lane	Altered	Category B

4 Moravale Lane	Altered	Category A
5 Moravale Lane	Altered	Category B
6 Moravale Lane	Altered	Category B
7 Moravale Lane	Altered	Category B
8 Moravale Lane	Altered	Category B
10 Moravale Lane	Altered	Category B
12 Moravale Lane	Altered	Category B
3 Opito Way	Altered	Category A
5 Opito Way	Altered	Category A
1/1 Opito Way	Altered	Category A
4 Redcastle Drive	Altered	Category A
5 Redcastle Drive	Altered	Category A
6 Redcastle Drive	Altered	Category A
8 Redcastle Drive	Altered	Category A
10 Redcastle Drive	Altered	Category A
86 Redcastle Drive	Altered	Category A
87 Redcastle Drive	Altered	Category A
88 Redcastle Drive	Altered	Category A
89 Redcastle Drive	Altered	Category A
90 Redcastle Drive	Altered	Category A
92 Redcastle Drive	Altered	Category A
94 Redcastle Drive	Altered	Category A
96 Redcastle Drive	Altered	Category A
98 Redcastle Drive	Altered	Category A
100 Redcastle Drive	Altered	Category A
102 Redcastle Drive	Altered	Category A
104 Redcastle Drive	Altered	Category A
106 Redcastle Drive	Altered	Category A
108 Redcastle Drive	Altered	Category A
5A Redcastle Drive	Altered	Category A
81A Redcastle Drive	Altered	Category A
1 Reinheimer Place	Altered	Category A

2 Reinheimer Place	Altered	Category A
3 Reinheimer Place	Altered	Category A
4 Reinheimer Place	Altered	Category A
5 Reinheimer Place	Altered	Category A
6 Reinheimer Place	Altered	Category A
7 Reinheimer Place	Altered	Category A
8 Reinheimer Place	Altered	Category B
9 Reinheimer Place	Altered	Category A
10 Reinheimer Place	Altered	Category B
11 Reinheimer Place	Altered	Category A
13 Reinheimer Place	Altered	Category A
3 Riechelmann Court	Altered	Category A
4 Riechelmann Court	Altered	Category A
5 Riechelmann Court	Altered	Category A
6 Riechelmann Court	Altered	Category A
7 Riechelmann Court	Altered	Category A
8 Riechelmann Court	Altered	Category A
9 Riechelmann Court	Altered	Category A
10 Riechelmann Court	Altered	Category B
11 Riechelmann Court	Altered	Category A
12 Riechelmann Court	Altered	Category A
13 Riechelmann Court	Altered	Category B
15 Robin Brooke Drive	Altered	Category A
17 Robin Brooke Drive	Altered	Category A
19 Robin Brooke Drive	Altered	Category A
20 Robin Brooke Drive	Altered	Category A
21 Robin Brooke Drive	Altered	Category A
22 Robin Brooke Drive	Altered	Category A
23 Robin Brooke Drive	Altered	Category A
24 Robin Brooke Drive	Altered	Category A
25 Robin Brooke Drive	Altered	Category A
27 Robin Brooke Drive	Altered	Category A

29 Robin Brooke Drive	Altered	Category A
30 Robin Brooke Drive	Altered	Category A
32 Robin Brooke Drive	Altered	Category A
34 Robin Brooke Drive	Altered	Category A
35 Robin Brooke Drive	Altered	Category A
36 Robin Brooke Drive	Altered	Category A
37 Robin Brooke Drive	Altered	Category A
38 Robin Brooke Drive	Altered	Category A
39 Robin Brooke Drive	Altered	Category A
40 Robin Brooke Drive	Altered	Category A
41 Robin Brooke Drive	Altered	Category A
42 Robin Brooke Drive	Altered	Category A
43 Robin Brooke Drive	Altered	Category A
45 Robin Brooke Drive	Altered	Category A
47 Robin Brooke Drive	Altered	Category A
49 Robin Brooke Drive	Altered	Category A
51 Robin Brooke Drive	Altered	Category A
53 Robin Brooke Drive	Altered	Category A
55 Robin Brooke Drive	Altered	Category A
1 Sheddings Lane	Altered	Category B
3 Sheddings Lane	Altered	Category B
4 Sheddings Lane	Altered	Category B
5 Sheddings Lane	Altered	Category B
6 Sheddings Lane	Altered	Category B
7 Sheddings Lane	Altered	Category B
8 Sheddings Lane	Altered	Category B
9 Sheddings Lane	Altered	Category B
10 Sheddings Lane	Altered	Category B
11 Sheddings Lane	Altered	Category B
12 Sheddings Lane	Altered	Category B
14 Sheddings Lane	Altered	Category B
16 Sheddings Lane	Altered	Category B

18 Sheddings Lane	Altered	Category B
20 Sheddings Lane	Altered	Category B
22 Sheddings Lane	Altered	Category B
24 Sheddings Lane	Altered	Category B
26 Sheddings Lane	Altered	Category B
28 Sheddings Lane	Altered	Category B
30 Sheddings Lane	Altered	Category B
4 Shingleton Lane	Altered	Category B
6 Shingleton Lane	Altered	Category B
7 Shingleton Lane	Altered	Category A
8 Shingleton Lane	Altered	Category B
10 Shingleton Lane	Altered	Category B
12 Shingleton Lane	Altered	Category B
14 Shingleton Lane	Altered	Category B
16 Shingleton Lane	Altered	Category B
5 Siedeberg Drive	Altered	Category A
13 Siedeberg Drive	Altered	Category A
13 Siedeberg Drive	Altered	Category A
15 Siedeberg Drive	Altered	Category A
150 Smales Road	Altered	Category A
11 Speyside Crescent	Altered	Category A
12 Speyside Crescent	Altered	Category A
13 Speyside Crescent	Altered	Category A
14 Speyside Crescent	Altered	Category A
15 Speyside Crescent	Altered	Category A
16 Speyside Crescent	Altered	Category A
17 Speyside Crescent	Altered	Category A
18 Speyside Crescent	Altered	Category A
19 Speyside Crescent	Altered	Category B
20 Speyside Crescent	Altered	Category A
21 Speyside Crescent	Altered	Category B
22 Speyside Crescent	Altered	Category A



23 Speyside Crescent	Altered	Category B
24 Speyside Crescent	Altered	Category A
25 Speyside Crescent	Altered	Category B
27 Speyside Crescent	Altered	Category B
37 Speyside Crescent	Altered	Category A
3 Srah Place	Altered	Category A
5 Srah Place	Altered	Category A
7 Srah Place	Altered	Category A
9 Srah Place	Altered	Category A
11 Srah Place	Altered	Category A
12 Srah Place	Altered	Category A
13 Srah Place	Altered	Category A
14 Srah Place	Altered	Category A
15 Srah Place	Altered	Category B
16 Srah Place	Altered	Category A
18 Srah Place	Altered	Category A
20 Srah Place	Altered	Category B
22 Srah Place	Altered	Category B
24 Srah Place	Altered	Category B
26 Srah Place	Altered	Category B
6 Strundeen Close	Altered	Category A
8 Strundeen Close	Altered	Category A
9 Strundeen Close	Altered	Category A
10 Strundeen Close	Altered	Category A
11 Strundeen Close	Altered	Category A
12 Strundeen Close	Altered	Category A
13 Strundeen Close	Altered	Category A
15 Strundeen Close	Altered	Category A
17 Strundeen Close	Altered	Category B
203 Te Irirangi Drive	Altered	Category C
205 Te Irirangi Drive	Altered	Category B
207 Te Irirangi Drive	Altered	Category B

209 Te Irirangi Drive	Altered	Category B
211 Te Irirangi Drive	Altered	Category B
213 Te Irirangi Drive	Altered	Category C
226 Te Irirangi Drive	Altered	Category A
228 Te Irirangi Drive	Altered	Category B
311 Te Irirangi Drive	Altered	Category A
311 Te Irirangi Drive	Altered	Category A
311 Te Irirangi Drive	Altered	Category A
487 Te Irirangi Drive	Altered	Category B
491 Te Irirangi Drive	Altered	Category C
1 Tonu'U Court	Altered	Category A
3 Tonu'U Court	Altered	Category A
5 Tonu'U Court	Altered	Category A
7 Tonu'U Court	Altered	Category B
8 Tonu'U Court	Altered	Category A
9 Tonu'U Court	Altered	Category A
10 Tonu'U Court	Altered	Category B
11 Tonu'U Court	Altered	Category A
12 Tonu'U Court	Altered	Category A
14 Tonu'U Court	Altered	Category A
16 Tonu'U Court	Altered	Category B
4 Treneary Lane	Altered	Category B
15 Treneary Lane	Altered	Category B
17 Treneary Lane	Altered	Category A
2 Vidiri Court	Altered	Category A
3 Vidiri Court	Altered	Category A
4 Vidiri Court	Altered	Category A
5 Vidiri Court	Altered	Category A
6 Vidiri Court	Altered	Category A
7 Vidiri Court	Altered	Category A
8 Vidiri Court	Altered	Category A
9 Vidiri Court	Altered	Category A

10 Vidiri Court	Altered	Category B
11 Vidiri Court	Altered	Category B
12 Vidiri Court	Altered	Category A
13 Vidiri Court	Altered	Category A
14 Vidiri Court	Altered	Category B
15 Vidiri Court	Altered	Category A
17 Vidiri Court	Altered	Category A
19 Vidiri Court	Altered	Category C
9 Walter Haddrell Crescent	Altered	Category A
10 Walter Haddrell Crescent	Altered	Category A
11 Walter Haddrell Crescent	Altered	Category A
12 Walter Haddrell Crescent	Altered	Category A
13 Walter Haddrell Crescent	Altered	Category A
14 Walter Haddrell Crescent	Altered	Category A
15 Walter Haddrell Crescent	Altered	Category A
16 Walter Haddrell Crescent	Altered	Category A
17 Walter Haddrell Crescent	Altered	Category A
19 Walter Haddrell Crescent	Altered	Category A
21 Walter Haddrell Crescent	Altered	Category A
23 Walter Haddrell Crescent	Altered	Category A
25 Walter Haddrell Crescent	Altered	Category A
27 Walter Haddrell Crescent	Altered	Category A
2 Wando Lane	Altered	Category A
4 Wando Lane	Altered	Category B
6 Wando Lane	Altered	Category B
8 Wando Lane	Altered	Category B
10 Wando Lane	Altered	Category B
12 Wando Lane	Altered	Category B
14 Wando Lane	Altered	Category B
16 Wando Lane	Altered	Category B
18 Wando Lane	Altered	Category B
20 Wando Lane	Altered	Category B

22 Wando Lane	Altered	Category A
24 Wando Lane	Altered	Category B
1 Wayne Francis Drive	Altered	Category A
3 Wayne Francis Drive	Altered	Category A
5 Wayne Francis Drive	Altered	Category A
3 Whetstone Road	Altered	Category A
4 Whetstone Road	Altered	Category A
5 Whetstone Road	Altered	Category A
6 Whetstone Road	Altered	Category A
7 Whetstone Road	Altered	Category A
8 Whetstone Road	Altered	Category A
9 Whetstone Road	Altered	Category A
10 Whetstone Road	Altered	Category B
7A Whetstone Road	Altered	Category A
9 William Woods Court	Altered	Category A
10 William Woods Court	Altered	Category A
11 William Woods Court	Altered	Category A
12 William Woods Court	Altered	Category A
13 William Woods Court	Altered	Category A
14 William Woods Court	Altered	Category A
15 William Woods Court	Altered	Category A
16 William Woods Court	Altered	Category B
17 William Woods Court	Altered	Category B
18 William Woods Court	Altered	Category B
19 William Woods Court	Altered	Category A
20 William Woods Court	Altered	Category A
21 William Woods Court	Altered	Category B

**NoR 2**

Address	New or Altered Road	Noise Criteria Category
17 Amersham Way	Altered	Category A
2 Astral Place	Altered	Category A
2 Belinda Avenue	Altered	Category B
5 Belinda Avenue	Altered	Category A
6 Belinda Avenue	Altered	Category A
6 Belinda Avenue	Altered	Category A
7 Belinda Avenue	Altered	Category A
8 Belinda Avenue	Altered	Category A
9 Belinda Avenue	Altered	Category A
11 Belinda Avenue	Altered	Category A
1 Bledisloe Street	Altered	Category A
2 Bledisloe Street	Altered	Category B
5 Bledisloe Street	Altered	Category A
6 Bledisloe Street	Altered	Category A
7 Bledisloe Street	Altered	Category A
8 Bledisloe Street	Altered	Category A
10 Bledisloe Street	Altered	Category A
1A Bledisloe Street	Altered	Category A
5A Bledisloe Street	Altered	Category A
6A Bledisloe Street	Altered	Category A
7A Bledisloe Street	Altered	Category A
8A Bledisloe Street	Altered	Category A
1 Boundary Road	Altered	Category A
77 Boundary Road	Altered	Category A
81 Boundary Road	Altered	Category A
86 Boundary Road	Altered	Category A
88 Boundary Road	Altered	Category A
90 Boundary Road	Altered	Category A
92 Boundary Road	Altered	Category A
94 Boundary Road	Altered	Category A

96 Boundary Road	Altered	Category A
98 Boundary Road	Altered	Category A
100 Boundary Road	Altered	Category A
102 Boundary Road	Altered	Category A
104 Boundary Road	Altered	Category A
104 Boundary Road	Altered	Category A
113 Boundary Road	Altered	Category A
127 Boundary Road	Altered	Category A
129 Boundary Road	Altered	Category A
133 Boundary Road	Altered	Category A
1/75 Boundary Road	Altered	Category A
3/75 Boundary Road	Altered	Category A
2/79 Boundary Road	Altered	Category A
3/79 Boundary Road	Altered	Category A
1/82 Boundary Road	Altered	Category A
2/82 Boundary Road	Altered	Category A
1/84 Boundary Road	Altered	Category A
2/84 Boundary Road	Altered	Category A
1/104C Boundary Road	Altered	Category B
1/115 Boundary Road	Altered	Category A
1/119 Boundary Road	Altered	Category A
104A Boundary Road	Altered	Category A
115A Boundary Road	Altered	Category A
115C Boundary Road	Altered	Category A
131A Boundary Road	Altered	Category B
2/104C Boundary Road	Altered	Category B
2/119 Boundary Road	Altered	Category A
3/119 Boundary Road	Altered	Category A
92A Boundary Road	Altered	Category A
94A Boundary Road	Altered	Category A
3 Brooks Way	Altered	Category A
4 Brooks Way	Altered	Category A

5 Brooks Way	Altered	Category A
7 Brooks Way	Altered	Category A
8 Brooks Way	Altered	Category A
10 Brooks Way	Altered	Category A
11 Brooks Way	Altered	Category A
6A Brooks Way	Altered	Category A
6B Brooks Way	Altered	Category A
6C Brooks Way	Altered	Category A
3 Caldecote Place	Altered	Category A
5 Caldecote Place	Altered	Category A
6 Caldecote Place	Altered	Category A
7 Caldecote Place	Altered	Category A
8 Caldecote Place	Altered	Category A
129 Carruth Road	Altered	Category A
129 Carruth Road	Altered	Category A
131 Carruth Road	Altered	Category A
131 Carruth Road	Altered	Category A
133 Carruth Road	Altered	Category A
135 Carruth Road	Altered	Category A
135 Carruth Road	Altered	Category A
135 Carruth Road	Altered	Category A
137 Carruth Road	Altered	Category A
137 Carruth Road	Altered	Category A
137 Carruth Road	Altered	Category A
138 Carruth Road	Altered	Category A
140 Carruth Road	Altered	Category A
142 Carruth Road	Altered	Category A
146 Carruth Road	Altered	Category A
146 Carruth Road	Altered	Category A
148 Carruth Road	Altered	Category A
148 Carruth Road	Altered	Category A
150 Carruth Road	Altered	Category A

152 Carruth Road	Altered	Category A
133A Carruth Road	Altered	Category A
79 Charntay Avenue	Altered	Category A
81 Charntay Avenue	Altered	Category A
83 Charntay Avenue	Altered	Category A
85 Charntay Avenue	Altered	Category A
87 Charntay Avenue	Altered	Category A
1/68 Charntay Avenue	Altered	Category A
2/68 Charntay Avenue	Altered	Category A
1/70 Charntay Avenue	Altered	Category A
2/70 Charntay Avenue	Altered	Category A
3/70 Charntay Avenue	Altered	Category A
1/74 Charntay Avenue	Altered	Category A
2/74 Charntay Avenue	Altered	Category B
3/74 Charntay Avenue	Altered	Category A
4 Constance Place	Altered	Category A
6 Constance Place	Altered	Category A
8 Constance Place	Altered	Category A
10 Constance Place	Altered	Category A
12 Constance Place	Altered	Category A
13 Constance Place	Altered	Category A
13 Constance Place	Altered	Category A
4A Constance Place	Altered	Category A
37 Darnell Crescent	Altered	Category A
54 Darnell Crescent	Altered	Category A
159 Dawson Road	Altered	Category A
161 Dawson Road	Altered	Category A
163 Dawson Road	Altered	Category A
163 Dawson Road	Altered	Category A
165 Dawson Road	Altered	Category A
165 Dawson Road	Altered	Category A
169 Dawson Road	Altered	Category A



171 Dawson Road	Altered	Category A
173A Dawson Road	Altered	Category A
1 Dillon Crescent	Altered	Category A
3 Dillon Crescent	Altered	Category A
4 Dillon Crescent	Altered	Category A
53 Diorella Drive	Altered	Category A
55 Diorella Drive	Altered	Category A
57 Diorella Drive	Altered	Category A
59 Diorella Drive	Altered	Category A
66 Diorella Drive	Altered	Category A
68 Diorella Drive	Altered	Category C
1/64 Diorella Drive	Altered	Category A
2/64 Diorella Drive	Altered	Category A
3 Dissmeyer Drive	Altered	Category B
4 Dissmeyer Drive	Altered	Category A
5 Dissmeyer Drive	Altered	Category C
6 Dissmeyer Drive	Altered	Category A
7 Dissmeyer Drive	Altered	Category B
8 Dissmeyer Drive	Altered	Category A
9 Dissmeyer Drive	Altered	Category B
10 Dissmeyer Drive	Altered	Category A
11 Dissmeyer Drive	Altered	Category B
13 Dissmeyer Drive	Altered	Category A
14 Dissmeyer Drive	Altered	Category A
15 Dissmeyer Drive	Altered	Category A
16 Dissmeyer Drive	Altered	Category A
16 Dissmeyer Drive	Altered	Category A
17 Dissmeyer Drive	Altered	Category A
19 Dissmeyer Drive	Altered	Category A
20 Dissmeyer Drive	Altered	Category A
21 Dissmeyer Drive	Altered	Category A
23 Dissmeyer Drive	Altered	Category A

24 Dissmeyer Drive	Altered	Category A
25 Dissmeyer Drive	Altered	Category A
26 Dissmeyer Drive	Altered	Category A
27 Dissmeyer Drive	Altered	Category A
28 Dissmeyer Drive	Altered	Category A
29 Dissmeyer Drive	Altered	Category A
31 Dissmeyer Drive	Altered	Category A
31 Dissmeyer Drive	Altered	Category B
33 Dissmeyer Drive	Altered	Category A
34 Dissmeyer Drive	Altered	Category A
35 Dissmeyer Drive	Altered	Category A
36 Dissmeyer Drive	Altered	Category A
37 Dissmeyer Drive	Altered	Category A
38 Dissmeyer Drive	Altered	Category A
39 Dissmeyer Drive	Altered	Category A
39 Dissmeyer Drive	Altered	Category B
41 Dissmeyer Drive	Altered	Category A
41 Dissmeyer Drive	Altered	Category B
43 Dissmeyer Drive	Altered	Category A
45 Dissmeyer Drive	Altered	Category A
47 Dissmeyer Drive	Altered	Category A
47 Dissmeyer Drive	Altered	Category B
49 Dissmeyer Drive	Altered	Category B
49 Dissmeyer Drive	Altered	Category A
51 Dissmeyer Drive	Altered	Category A
51 Dissmeyer Drive	Altered	Category A
53 Dissmeyer Drive	Altered	Category A
55 Dissmeyer Drive	Altered	Category A
57 Dissmeyer Drive	Altered	Category A
29 Fitzroy Street	Altered	Category A
31 Fitzroy Street	Altered	Category A
33 Fitzroy Street	Altered	Category A

35 Fitzroy Street	Altered	Category A
37 Fitzroy Street	Altered	Category A
41 Fitzroy Street	Altered	Category A
43 Fitzroy Street	Altered	Category A
61 Fitzroy Street	Altered	Category A
63 Fitzroy Street	Altered	Category A
65 Fitzroy Street	Altered	Category A
67 Fitzroy Street	Altered	Category A
69 Fitzroy Street	Altered	Category A
71 Fitzroy Street	Altered	Category A
73 Fitzroy Street	Altered	Category A
75 Fitzroy Street	Altered	Category A
79 Fitzroy Street	Altered	Category A
87 Fitzroy Street	Altered	Category A
89 Fitzroy Street	Altered	Category A
91 Fitzroy Street	Altered	Category A
99 Fitzroy Street	Altered	Category A
99 Fitzroy Street	Altered	Category A
103 Fitzroy Street	Altered	Category A
105 Fitzroy Street	Altered	Category A
107 Fitzroy Street	Altered	Category A
2/77 Fitzroy Street	Altered	Category A
2/85 Fitzroy Street	Altered	Category A
1/95 Fitzroy Street	Altered	Category A
2/95 Fitzroy Street	Altered	Category A
3/95 Fitzroy Street	Altered	Category A
1/97 Fitzroy Street	Altered	Category A
2/97 Fitzroy Street	Altered	Category A
3/97 Fitzroy Street	Altered	Category A
4/97 Fitzroy Street	Altered	Category A
29A Fitzroy Street	Altered	Category A
31A Fitzroy Street	Altered	Category A

33A Fitzroy Street	Altered	Category A
35A Fitzroy Street	Altered	Category A
37A Fitzroy Street	Altered	Category A
45A Fitzroy Street	Altered	Category A
45B Fitzroy Street	Altered	Category A
45C Fitzroy Street	Altered	Category A
65B Fitzroy Street	Altered	Category A
65C Fitzroy Street	Altered	Category A
67A Fitzroy Street	Altered	Category A
69A Fitzroy Street	Altered	Category A
71A Fitzroy Street	Altered	Category A
71B Fitzroy Street	Altered	Category A
73A Fitzroy Street	Altered	Category A
73B Fitzroy Street	Altered	Category A
75A Fitzroy Street	Altered	Category A
77A Fitzroy Street	Altered	Category A
87A Fitzroy Street	Altered	Category A
87B Fitzroy Street	Altered	Category A
89A Fitzroy Street	Altered	Category A
91A Fitzroy Street	Altered	Category A
91B Fitzroy Street	Altered	Category A
93A Fitzroy Street	Altered	Category A
93B Fitzroy Street	Altered	Category A
1 Grayson Avenue	Altered	Category A
621 Great South Road	Altered	Category B
631 Great South Road	Altered	Category B
640 Great South Road	Altered	Category A
640 Great South Road	Altered	Category A
640 Great South Road	Altered	Category A
53 Hollyford Drive	Altered	Category A
53 Hollyford Drive	Altered	Category A
55 Hollyford Drive	Altered	Category A

55 Hollyford Drive	Altered	Category A
57 Hollyford Drive	Altered	Category A
57 Hollyford Drive	Altered	Category A
59 Hollyford Drive	Altered	Category A
64 Hollyford Drive	Altered	Category A
66 Hollyford Drive	Altered	Category A
66 Hollyford Drive	Altered	Category A
68 Hollyford Drive	Altered	Category A
70 Hollyford Drive	Altered	Category A
72A Hollyford Drive	Altered	Category B
72B Hollyford Drive	Altered	Category A
1 Ihaka Place	Altered	Category B
3 Ihaka Place	Altered	Category A
4 Ihaka Place	Altered	Category A
5 Ihaka Place	Altered	Category A
6 Ihaka Place	Altered	Category A
7 Ihaka Place	Altered	Category A
8 Ihaka Place	Altered	Category A
1/2 Ihaka Place	Altered	Category B
2/2 Ihaka Place	Altered	Category A
3/2 Ihaka Place	Altered	Category A
4/2 Ihaka Place	Altered	Category A
3 Jontue Place	Altered	Category A
5 Jontue Place	Altered	Category A
7 Jontue Place	Altered	Category B
7 Jontue Place	Altered	Category A
9 Jontue Place	Altered	Category A
10 Jontue Place	Altered	Category A
11 Jontue Place	Altered	Category A
11 Jontue Place	Altered	Category A
11 Jontue Place	Altered	Category A
12 Jontue Place	Altered	Category A

13 Jontue Place	Altered	Category A
14 Jontue Place	Altered	Category A
15 Jontue Place	Altered	Category A
16 Jontue Place	Altered	Category A
5A Jontue Place	Altered	Category A
2 Lambie Drive	Altered	Category B
5 Lambie Drive	Altered	Category B
19 Lambie Drive	Altered	Category A
1/7 Lambie Drive	Altered	Category A
2/7 Lambie Drive	Altered	Category A
3/7 Lambie Drive	Altered	Category A
1 Leila Place	Altered	Category B
2 Leila Place	Altered	Category A
2 Leila Place	Altered	Category B
4 Leila Place	Altered	Category A
6 Leila Place	Altered	Category A
9 Leila Place	Altered	Category A
1/3 Leila Place	Altered	Category A
2/3 Leila Place	Altered	Category A
1/7 Leila Place	Altered	Category A
2/7 Leila Place	Altered	Category A
4 Leith Court	Altered	Category A
6 Leith Court	Altered	Category A
6 Leith Court	Altered	Category A
8 Leith Court	Altered	Category A
10 Leith Court	Altered	Category A
14 Leith Court	Altered	Category A
16 Leith Court	Altered	Category A
18 Leith Court	Altered	Category A
19 Leith Court	Altered	Category A
20 Leith Court	Altered	Category A
21 Leith Court	Altered	Category A

22 Leith Court	Altered	Category A
1/12 Leith Court	Altered	Category A
2/12 Leith Court	Altered	Category A
16A Leith Court	Altered	Category A
4A Leith Court	Altered	Category A
58 Manukau Station Road	Altered	Category B
58 Manukau Station Road	Altered	Category B
35 Medvale Avenue	Altered	Category A
37 Medvale Avenue	Altered	Category A
39 Medvale Avenue	Altered	Category A
41 Medvale Avenue	Altered	Category A
1 Norman Spencer Drive	Altered	Category A
3 Norman Spencer Drive	Altered	Category A
5 Norman Spencer Drive	Altered	Category A
1/4 Norman Spencer Drive	Altered	Category A
2/4 Norman Spencer Drive	Altered	Category A
39 Nuneaton Drive	Altered	Category A
41 Nuneaton Drive	Altered	Category A
45 Nuneaton Drive	Altered	Category A
62 Othello Drive	Altered	Category A
63 Othello Drive	Altered	Category A
64 Othello Drive	Altered	Category A
65A Othello Drive	Altered	Category A
65B Othello Drive	Altered	Category A
67A Othello Drive	Altered	Category A
67B Othello Drive	Altered	Category A
1 Penion Drive	Altered	Category C
2 Penion Drive	Altered	Category A
4 Penion Drive	Altered	Category A
11 Penion Drive	Altered	Category A
15 Penion Drive	Altered	Category A
17 Penion Drive	Altered	Category A

19 Penion Drive	Altered	Category A
25 Penion Drive	Altered	Category A
25 Penion Drive	Altered	Category A
27 Penion Drive	Altered	Category A
29 Penion Drive	Altered	Category A
31 Penion Drive	Altered	Category A
35 Penion Drive	Altered	Category A
37 Penion Drive	Altered	Category A
39 Penion Drive	Altered	Category A
41 Penion Drive	Altered	Category A
43 Penion Drive	Altered	Category A
1/33 Penion Drive	Altered	Category A
2/33 Penion Drive	Altered	Category A
1/21 Penion Drive	Altered	Category A
2/21 Penion Drive	Altered	Category A
1/6 Penion Drive	Altered	Category A
2/6 Penion Drive	Altered	Category A
1/7 Penion Drive	Altered	Category A
2/7 Penion Drive	Altered	Category A
1/8 Penion Drive	Altered	Category A
2/8 Penion Drive	Altered	Category A
1/9 Penion Drive	Altered	Category A
1/10 Penion Drive	Altered	Category A
2/10 Penion Drive	Altered	Category A
3/10 Penion Drive	Altered	Category A
1/23 Penion Drive	Altered	Category A
2/23 Penion Drive	Altered	Category A
19A Penion Drive	Altered	Category A
27A Penion Drive	Altered	Category A
39A Penion Drive	Altered	Category A
3A Penion Drive	Altered	Category A
3B Penion Drive	Altered	Category A



5A Penion Drive	Altered	Category A
5B Penion Drive	Altered	Category A
9B Penion Drive	Altered	Category A
4 Plunket Avenue	Altered	Category B
7 Plunket Avenue	Altered	Category A
8 Plunket Avenue	Altered	Category A
9 Plunket Avenue	Altered	Category A
10 Plunket Avenue	Altered	Category A
12 Plunket Avenue	Altered	Category A
14 Plunket Avenue	Altered	Category A
11A Plunket Avenue	Altered	Category A
14A Plunket Avenue	Altered	Category A
6A Plunket Avenue	Altered	Category A
7A Plunket Avenue	Altered	Category A
8A Plunket Avenue	Altered	Category A
63 Puhinui Road	Altered	Category A
65 Puhinui Road	Altered	Category A
68 Puhinui Road	Altered	Category A
70 Puhinui Road	Altered	Category A
70 Puhinui Road	Altered	Category A
74 Puhinui Road	Altered	Category B
80 Puhinui Road	Altered	Category A
82 Puhinui Road	Altered	Category A
82 Puhinui Road	Altered	Category A
83 Puhinui Road	Altered	Category A
83 Puhinui Road	Altered	Category A
83 Puhinui Road	Altered	Category A
83 Puhinui Road	Altered	Category A
83 Puhinui Road	Altered	Category A
83 Puhinui Road	Altered	Category B
84 Puhinui Road	Altered	Category A
86 Puhinui Road	Altered	Category A

88 Puhinui Road	Altered	Category A
92 Puhinui Road	Altered	Category A
94 Puhinui Road	Altered	Category B
96 Puhinui Road	Altered	Category A
96 Puhinui Road	Altered	Category A
98 Puhinui Road	Altered	Category A
100 Puhinui Road	Altered	Category A
100 Puhinui Road	Altered	Category A
109 Puhinui Road	Altered	Category B
110 Puhinui Road	Altered	Category A
111 Puhinui Road	Altered	Category A
112 Puhinui Road	Altered	Category B
113 Puhinui Road	Altered	Category B
114 Puhinui Road	Altered	Category A
115 Puhinui Road	Altered	Category B
116 Puhinui Road	Altered	Category A
116 Puhinui Road	Altered	Category A
116 Puhinui Road	Altered	Category A
116 Puhinui Road	Altered	Category A
116 Puhinui Road	Altered	Category A
116 Puhinui Road	Altered	Category A
116 Puhinui Road	Altered	Category A
120 Puhinui Road	Altered	Category B
120 Puhinui Road	Altered	Category A
121 Puhinui Road	Altered	Category B
123 Puhinui Road	Altered	Category B
126 Puhinui Road	Altered	Category A
133 Puhinui Road	Altered	Category A
135 Puhinui Road	Altered	Category A
137 Puhinui Road	Altered	Category B
139 Puhinui Road	Altered	Category B
141 Puhinui Road	Altered	Category B

143 Puhinui Road	Altered	Category A
145 Puhinui Road	Altered	Category A
147 Puhinui Road	Altered	Category A
151 Puhinui Road	Altered	Category A
2/73 Puhinui Road	Altered	Category B
1/90 Puhinui Road	Altered	Category A
2/90 Puhinui Road	Altered	Category A
3/90 Puhinui Road	Altered	Category A
1/104 Puhinui Road	Altered	Category B
1/118 Puhinui Road	Altered	Category B
1/119 Puhinui Road	Altered	Category B
105A Puhinui Road	Altered	Category A
109A Puhinui Road	Altered	Category A
112A Puhinui Road	Altered	Category A
113A Puhinui Road	Altered	Category A
114A Puhinui Road	Altered	Category A
122A Puhinui Road	Altered	Category A
123A Puhinui Road	Altered	Category A
124B Puhinui Road	Altered	Category B
124C Puhinui Road	Altered	Category A
125A Puhinui Road	Altered	Category B
125B Puhinui Road	Altered	Category A
127A Puhinui Road	Altered	Category B
127B Puhinui Road	Altered	Category A
128A Puhinui Road	Altered	Category B
135A Puhinui Road	Altered	Category A
139A Puhinui Road	Altered	Category A
141A Puhinui Road	Altered	Category A
142A Puhinui Road	Altered	Category B
143A Puhinui Road	Altered	Category A
147A Puhinui Road	Altered	Category A
148A Puhinui Road	Altered	Category B

148B Puhinui Road	Altered	Category A
2/101 Puhinui Road	Altered	Category B
2/102 Puhinui Road	Altered	Category B
2/102 Puhinui Road	Altered	Category A
2/103 Puhinui Road	Altered	Category A
2/104 Puhinui Road	Altered	Category A
2/111 Puhinui Road	Altered	Category A
2/118 Puhinui Road	Altered	Category A
3/101 Puhinui Road	Altered	Category A
3/118 Puhinui Road	Altered	Category A
3/150 Puhinui Road	Altered	Category A
3/150 Puhinui Road	Altered	Category A
63A Puhinui Road	Altered	Category A
66A Puhinui Road	Altered	Category A
66B Puhinui Road	Altered	Category A
66C Puhinui Road	Altered	Category A
75B Puhinui Road	Altered	Category A
77A Puhinui Road	Altered	Category B
77B Puhinui Road	Altered	Category A
85A Puhinui Road	Altered	Category B
86A Puhinui Road	Altered	Category A
87A Puhinui Road	Altered	Category A
88A Puhinui Road	Altered	Category A
93B Puhinui Road	Altered	Category B
93C Puhinui Road	Altered	Category A
94A Puhinui Road	Altered	Category A
17 Putney Way	Altered	Category A
3/10 Ranfurly Road	Altered	Category A
13 Rito Place	Altered	Category A
51 Robin Brooke Drive	Altered	Category A
53 Robin Brooke Drive	Altered	Category A
18 Ronwood Avenue	Altered	Category A

16 Sambrooke Crescent	Altered	Category A
18 Sambrooke Crescent	Altered	Category A
20 Sambrooke Crescent	Altered	Category A
22 Sambrooke Crescent	Altered	Category A
24 Sambrooke Crescent	Altered	Category A
26 Sambrooke Crescent	Altered	Category A
1 Sandrine Avenue	Altered	Category C
3 Sandrine Avenue	Altered	Category A
3 Sandrine Avenue	Altered	Category A
4 Sandrine Avenue	Altered	Category A
6 Sandrine Avenue	Altered	Category A
8 Sandrine Avenue	Altered	Category A
10 Sandrine Avenue	Altered	Category A
2 Shalimar Place	Altered	Category B
3 Shalimar Place	Altered	Category A
4 Shalimar Place	Altered	Category A
5 Shalimar Place	Altered	Category A
6 Shalimar Place	Altered	Category A
7 Shalimar Place	Altered	Category A
8 Shalimar Place	Altered	Category A
9 Shalimar Place	Altered	Category A
10 Shalimar Place	Altered	Category A
1A Shalimar Place	Altered	Category C
1B Shalimar Place	Altered	Category A
35 Sidey Avenue	Altered	Category A
65 Sikkim Crescent	Altered	Category A
67 Sikkim Crescent	Altered	Category A
68 Sikkim Crescent	Altered	Category A
70 Sikkim Crescent	Altered	Category A
70 Sikkim Crescent	Altered	Category A
71 Sikkim Crescent	Altered	Category A
72 Sikkim Crescent	Altered	Category A

73 Sikkim Crescent	Altered	Category A
74 Sikkim Crescent	Altered	Category A
75 Sikkim Crescent	Altered	Category A
76 Sikkim Crescent	Altered	Category A
78 Sikkim Crescent	Altered	Category A
80 Sikkim Crescent	Altered	Category A
82 Sikkim Crescent	Altered	Category A
84 Sikkim Crescent	Altered	Category A
86 Sikkim Crescent	Altered	Category A
88 Sikkim Crescent	Altered	Category A
88 Sikkim Crescent	Altered	Category A
14 Tavistock Street	Altered	Category A
15 Tavistock Street	Altered	Category A
16 Tavistock Street	Altered	Category A
17 Tavistock Road	Altered	Category A
47 Te Irirangi Drive	Altered	Category B
49 Te Irirangi Drive	Altered	Category B
51 Te Irirangi Drive	Altered	Category B
52 Te Irirangi Drive	Altered	Category A
53 Te Irirangi Drive	Altered	Category C
54 Te Irirangi Drive	Altered	Category A
58 Te Irirangi Drive	Altered	Category A
63 Te Irirangi Drive	Altered	Category C
73 Te Irirangi Drive	Altered	Category C
75 Te Irirangi Drive	Altered	Category C
77 Te Irirangi Drive	Altered	Category C
79 Te Irirangi Drive	Altered	Category B
83 Te Irirangi Drive	Altered	Category B
85 Te Irirangi Drive	Altered	Category B
87 Te Irirangi Drive	Altered	Category B
93 Te Irirangi Drive	Altered	Category B
143 Te Irirangi Drive	Altered	Category A

163 Te Irirangi Drive	Altered	Category B
165 Te Irirangi Drive	Altered	Category B
167 Te Irirangi Drive	Altered	Category B
169 Te Irirangi Drive	Altered	Category B
171 Te Irirangi Drive	Altered	Category B
173 Te Irirangi Drive	Altered	Category B
175 Te Irirangi Drive	Altered	Category C
177 Te Irirangi Drive	Altered	Category C
179 Te Irirangi Drive	Altered	Category C
181 Te Irirangi Drive	Altered	Category C
183 Te Irirangi Drive	Altered	Category C
185 Te Irirangi Drive	Altered	Category B
187 Te Irirangi Drive	Altered	Category C
189 Te Irirangi Drive	Altered	Category C
191 Te Irirangi Drive	Altered	Category C
193 Te Irirangi Drive	Altered	Category C
195 Te Irirangi Drive	Altered	Category C
197 Te Irirangi Drive	Altered	Category C
198 Te Irirangi Drive	Altered	Category B
200 Te Irirangi Drive	Altered	Category B
202 Te Irirangi Drive	Altered	Category B
203 Te Irirangi Drive	Altered	Category C
204 Te Irirangi Drive	Altered	Category B
205 Te Irirangi Drive	Altered	Category B
206 Te Irirangi Drive	Altered	Category B
208 Te Irirangi Drive	Altered	Category B
212 Te Irirangi Drive	Altered	Category B
216 Te Irirangi Drive	Altered	Category B
222 Te Irirangi Drive	Altered	Category B
224 Te Irirangi Drive	Altered	Category A
226 Te Irirangi Drive	Altered	Category A
228 Te Irirangi Drive	Altered	Category B

1/64 Te Irirangi Drive	Altered	Category A
2/64 Te Irirangi Drive	Altered	Category A
2/66 Te Irirangi Drive	Altered	Category A
2/68 Te Irirangi Drive	Altered	Category A
1/70 Te Irirangi Drive	Altered	Category A
2/70 Te Irirangi Drive	Altered	Category A
2/80 Te Irirangi Drive	Altered	Category A
2/86 Te Irirangi Drive	Altered	Category A
1/97 Te Irirangi Drive	Altered	Category C
1/101 Te Irirangi Drive	Altered	Category B
1/102 Te Irirangi Drive	Altered	Category A
1/104 Te Irirangi Drive	Altered	Category A
1/105 Te Irirangi Drive	Altered	Category B
1/116 Te Irirangi Drive	Altered	Category A
1/122 Te Irirangi Drive	Altered	Category A
1/128 Te Irirangi Drive	Altered	Category A
1/136 Te Irirangi Drive	Altered	Category A
1/138 Te Irirangi Drive	Altered	Category A
1/144 Te Irirangi Drive	Altered	Category A
1/145 Te Irirangi Drive	Altered	Category A
1/150 Te Irirangi Drive	Altered	Category A
1/156 Te Irirangi Drive	Altered	Category A
1/162 Te Irirangi Drive	Altered	Category A
1/168 Te Irirangi Drive	Altered	Category A
1/190 Te Irirangi Drive	Altered	Category C
1/192 Te Irirangi Drive	Altered	Category A
114A Te Irirangi Drive	Altered	Category A
114A Te Irirangi Drive	Altered	Category A
143A Te Irirangi Drive	Altered	Category A
190B Te Irirangi Drive	Altered	Category B
2/101 Te Irirangi Drive	Altered	Category A
2/104 Te Irirangi Drive	Altered	Category A



2/105 Te Irirangi Drive	Altered	Category A
2/116 Te Irirangi Drive	Altered	Category A
2/122 Te Irirangi Drive	Altered	Category A
2/128 Te Irirangi Drive	Altered	Category A
2/136 Te Irirangi Drive	Altered	Category A
2/138 Te Irirangi Drive	Altered	Category A
2/144 Te Irirangi Drive	Altered	Category A
2/145 Te Irirangi Drive	Altered	Category A
2/147 Te Irirangi Drive	Altered	Category B
2/150 Te Irirangi Drive	Altered	Category A
2/151 Te Irirangi Drive	Altered	Category A
2/151 Te Irirangi Drive	Altered	Category A
2/155 Te Irirangi Drive	Altered	Category B
2/156 Te Irirangi Drive	Altered	Category A
2/162 Te Irirangi Drive	Altered	Category A
2/168 Te Irirangi Drive	Altered	Category A
2/192 Te Irirangi Drive	Altered	Category B
3/101 Te Irirangi Drive	Altered	Category B
3/105 Te Irirangi Drive	Altered	Category B
46A Te Irirangi Drive	Altered	Category A
50A Te Irirangi Drive	Altered	Category A
58B Te Irirangi Drive	Altered	Category A
76C Te Irirangi Drive	Altered	Category A
95A Te Irirangi Drive	Altered	Category A
95B Te Irirangi Drive	Altered	Category A
97B Te Irirangi Drive	Altered	Category A
97C Te Irirangi Drive	Altered	Category B
7 Titchmarsh Crescent	Altered	Category A
8 Titchmarsh Crescent	Altered	Category A
9 Titchmarsh Crescent	Altered	Category A
10 Titchmarsh Crescent	Altered	Category A
11 Titchmarsh Crescent	Altered	Category A

12 Titchmarsh Crescent	Altered	Category A
13 Titchmarsh Crescent	Altered	Category A
14 Titchmarsh Crescent	Altered	Category A
16 Titchmarsh Crescent	Altered	Category A
18 Titchmarsh Crescent	Altered	Category A
20 Titchmarsh Crescent	Altered	Category A
21 Titchmarsh Crescent	Altered	Category A
22 Titchmarsh Crescent	Altered	Category A
23 Titchmarsh Crescent	Altered	Category A
24 Titchmarsh Crescent	Altered	Category A
25 Titchmarsh Crescent	Altered	Category A
26 Titchmarsh Crescent	Altered	Category A
27 Titchmarsh Crescent	Altered	Category A
29 Titchmarsh Crescent	Altered	Category A
31 Titchmarsh Crescent	Altered	Category A
33 Titchmarsh Crescent	Altered	Category A
35 Titchmarsh Crescent	Altered	Category A
37 Titchmarsh Crescent	Altered	Category A
39 Titchmarsh Crescent	Altered	Category A
41 Titchmarsh Crescent	Altered	Category A
43 Titchmarsh Crescent	Altered	Category A
11 Townley Place	Altered	Category A
1/13 Townley Place	Altered	Category A
2/13 Townley Place	Altered	Category A
1/14 Townley Place	Altered	Category A
2/14 Townley Place	Altered	Category A
2/4 Townley Place	Altered	Category A
1/6 Townley Place	Altered	Category A
2/6 Townley Place	Altered	Category A
1/8 Townley Place	Altered	Category A
2/8 Townley Place	Altered	Category A
1/10 Townley Place	Altered	Category A

2/10 Townley Place	Altered	Category A
1/12 Townley Place	Altered	Category A
2/12 Townley Place	Altered	Category A
2 Ulay Place	Altered	Category A
3 Ulay Place	Altered	Category A
5 Ulay Place	Altered	Category A
7 Ulay Place	Altered	Category A
9 Ulay Place	Altered	Category A
11 Ulay Place	Altered	Category A
13 Ulay Place	Altered	Category A
4A Ulay Place	Altered	Category A
3 Whetstone Road	Altered	Category A
4 Whetstone Road	Altered	Category A
5 Whetstone Road	Altered	Category A
6 Whetstone Road	Altered	Category A
7 Whetstone Road	Altered	Category A
8 Whetstone Road	Altered	Category A
9 Whetstone Road	Altered	Category A
10 Whetstone Road	Altered	Category B
7A Whetstone Road	Altered	Category A
33 York Road	Altered	Category A
35 York Road	Altered	Category A
36 York Road	Altered	Category A
37 York Road	Altered	Category A
37 York Road	Altered	Category A
37 York Road	Altered	Category A
37 York Road	Altered	Category A
39 York Road	Altered	Category A
40 York Road	Altered	Category A
1/36 York Road	Altered	Category A
2/36 York Road	Altered	Category A
40A York Road	Altered	Category A

24 Zelda Avenue	Altered	Category A
26 Zelda Avenue	Altered	Category A
28 Zelda Avenue	Altered	Category A
28 Zelda Avenue	Altered	Category A
30 Zelda Avenue	Altered	Category A
32 Zelda Avenue	Altered	Category A
34 Zelda Avenue	Altered	Category A
36 Zelda Avenue	Altered	Category A
38 Zelda Avenue	Altered	Category A
40 Zelda Avenue	Altered	Category A
42 Zelda Avenue	Altered	Category A
44 Zelda Avenue	Altered	Category A
46 Zelda Avenue	Altered	Category A
46 Zelda Avenue	Altered	Category A
48 Zelda Avenue	Altered	Category A
50 Zelda Avenue	Altered	Category A
52 Zelda Avenue	Altered	Category A
52 Zelda Avenue	Altered	Category A
54 Zelda Avenue	Altered	Category A
54 Zelda Avenue	Altered	Category A
56 Zelda Avenue	Altered	Category A
58 Zelda Avenue	Altered	Category A
60 Zelda Avenue	Altered	Category A
62 Zelda Avenue	Altered	Category A
62 Zelda Avenue	Altered	Category A
64 Zelda Avenue	Altered	Category A
66 Zelda Avenue	Altered	Category A
68 Zelda Avenue	Altered	Category A
70 Zelda Avenue	Altered	Category A
74 Zelda Avenue	Altered	Category A
76 Zelda Avenue	Altered	Category A
82 Zelda Avenue	Altered	Category A

84 Zelda Avenue	Altered	Category A
84 Zelda Avenue	Altered	Category A
26A Zelda Avenue	Altered	Category A
84A Zelda Avenue	Altered	Category A

**NoR 3**

Address	New or Altered Road	Noise Criteria Category
2 Bledisloe Street	Altered	Category B
6 Bledisloe Street	Altered	Category A
6A Bledisloe Street	Altered	Category A
8A Bledisloe Street	Altered	Category A
4 Bridge Street	Altered	Category B
6A Bridge Street	Altered	Category A
1 Burrell Avenue	Altered	Category A
4 Burrell Avenue	Altered	Category A
4 Burrell Avenue	Altered	Category A
6 Burrell Avenue	Altered	Category A
8 Burrell Avenue	Altered	Category A
8 Burrell Avenue	Altered	Category A
10 Burrell Avenue	Altered	Category A
12 Burrell Avenue	Altered	Category A
12 Burrell Avenue	Altered	Category A
12 Burrell Avenue	Altered	Category A
12 Burrell Avenue	Altered	Category A
12 Burrell Avenue	Altered	Category A
12 Burrell Avenue	Altered	Category A
12 Burrell Avenue	Altered	Category A
2A Burrell Avenue	Altered	Category A
3A Burrell Avenue	Altered	Category A
9 Cambridge Terrace	Altered	Category A
17 Cambridge Terrace	Altered	Category B
19 Cambridge Terrace	Altered	Category B
21 Cambridge Terrace	Altered	Category B
21 Cambridge Terrace	Altered	Category A
23 Cambridge Terrace	Altered	Category B
25 Cambridge Terrace	Altered	Category A
27 Cambridge Terrace	Altered	Category A
28 Cambridge Terrace	Altered	Category A

29 Cambridge Terrace	Altered	Category A
30 Cambridge Terrace	Altered	Category A
32 Cambridge Terrace	Altered	Category A
33 Cambridge Terrace	Altered	Category A
34 Cambridge Terrace	Altered	Category A
1/30 Cambridge Terrace	Altered	Category A
1/31 Cambridge Terrace	Altered	Category A
2/34 Cambridge Terrace	Altered	Category A
2/19 Cambridge Terrace	Altered	Category A
17A Cambridge Terrace	Altered	Category A
23A Cambridge Terrace	Altered	Category A
25B Cambridge Terrace	Altered	Category A
27A Cambridge Terrace	Altered	Category A
31B Cambridge Terrace	Altered	Category A
32A Cambridge Terrace	Altered	Category A
33A Cambridge Terrace	Altered	Category A
9A Cambridge Terrace	Altered	Category A
4 Clendon Avenue	Altered	Category A
5 Clendon Avenue	Altered	Category A
7 Clendon Avenue	Altered	Category A
8 Clendon Avenue	Altered	Category A
9 Clendon Avenue	Altered	Category A
9 Clendon Avenue	Altered	Category A
11 Clendon Avenue	Altered	Category A
11A Clendon Avenue	Altered	Category A
8A Clendon Avenue	Altered	Category A
1 Fitzroy Street	Altered	Category A
7 Fitzroy Street	Altered	Category A
7 Fitzroy Street	Altered	Category A
7 Fitzroy Street	Altered	Category A
7 Fitzroy Street	Altered	Category A
7 Fitzroy Street	Altered	Category A

7 Fitzroy Street	Altered	Category A
9 Fitzroy Street	Altered	Category A
9 Fitzroy Street	Altered	Category A
9 Fitzroy Street	Altered	Category A
9 Fitzroy Street	Altered	Category A
9 Fitzroy Street	Altered	Category A
13 Fitzroy Street	Altered	Category A
13 Fitzroy Street	Altered	Category A
15 Fitzroy Street	Altered	Category A
17 Fitzroy Street	Altered	Category A
19 Fitzroy Street	Altered	Category A
21 Fitzroy Street	Altered	Category A
23 Fitzroy Street	Altered	Category A
25 Fitzroy Street	Altered	Category A
27 Fitzroy Street	Altered	Category A
29 Fitzroy Street	Altered	Category A
31 Fitzroy Street	Altered	Category A
33 Fitzroy Street	Altered	Category A
35 Fitzroy Street	Altered	Category A
37 Fitzroy Street	Altered	Category A
2/19 Fitzroy Street	Altered	Category A
1/21 Fitzroy Street	Altered	Category A
15A Fitzroy Street	Altered	Category A
17A Fitzroy Street	Altered	Category A
1A Fitzroy Street	Altered	Category A
23A Fitzroy Street	Altered	Category A
29A Fitzroy Street	Altered	Category A
31A Fitzroy Street	Altered	Category A
33A Fitzroy Street	Altered	Category A
35A Fitzroy Street	Altered	Category A
37A Fitzroy Street	Altered	Category A
4 Freyberg Avenue	Altered	Category A



6 Freyberg Avenue	Altered	Category A
8 Freyberg Avenue	Altered	Category A
10 Freyberg Avenue	Altered	Category A
12 Freyberg Avenue	Altered	Category A
14 Freyberg Avenue	Altered	Category A
18 Freyberg Avenue	Altered	Category A
20 Freyberg Avenue	Altered	Category A
22 Freyberg Avenue	Altered	Category A
24 Freyberg Avenue	Altered	Category A
26 Freyberg Avenue	Altered	Category A
26 Freyberg Avenue	Altered	Category A
28 Freyberg Avenue	Altered	Category A
30 Freyberg Avenue	Altered	Category A
32 Freyberg Avenue	Altered	Category A
10A Freyberg Avenue	Altered	Category A
12A Freyberg Avenue	Altered	Category A
14A Freyberg Avenue	Altered	Category A
16A Freyberg Avenue	Altered	Category A
16A Freyberg Avenue	Altered	Category A
20A Freyberg Avenue	Altered	Category A
22A Freyberg Avenue	Altered	Category A
32A Freyberg Avenue	Altered	Category A
6A Freyberg Avenue	Altered	Category A
81 Kenderdine Road	Altered	Category A
83 Kenderdine Road	Altered	Category A
85 Kenderdine Road	Altered	Category A
87 Kenderdine Road	Altered	Category A
89 Kenderdine Road	Altered	Category A
90 Kenderdine Road	Altered	Category A
90 Kenderdine Road	Altered	Category A
90 Kenderdine Road	Altered	Category A
90 Kenderdine Road	Altered	Category A

90 Kenderdine Road	Altered	Category A
91 Kenderdine Road	Altered	Category A
92 Kenderdine Road	Altered	Category A
92 Kenderdine Road	Altered	Category A
92 Kenderdine Road	Altered	Category A
94 Kenderdine Road	Altered	Category A
98 Kenderdine Road	Altered	Category A
106 Kenderdine Road	Altered	Category B
107 Kenderdine Road	Altered	Category A
109 Kenderdine Road	Altered	Category B
111 Kenderdine Road	Altered	Category B
1/93 Kenderdine Road	Altered	Category A
2/93 Kenderdine Road	Altered	Category B
1/98 Kenderdine Road	Altered	Category A
2/98 Kenderdine Road	Altered	Category A
1/109 Kenderdine Road	Altered	Category A
81A Kenderdine Road	Altered	Category A
83A Kenderdine Road	Altered	Category A
85A Kenderdine Road	Altered	Category A
3 Milan Road	Altered	Category A
4 Milan Road	Altered	Category A
5 Milan Road	Altered	Category A
6 Milan Road	Altered	Category A
7 Milan Road	Altered	Category A
49 Milan Road	Altered	Category A
51 Milan Road	Altered	Category A
53 Milan Road	Altered	Category A
55 Milan Road	Altered	Category A
57 Milan Road	Altered	Category A
59 Milan Road	Altered	Category A
59 Milan Road	Altered	Category A
60 Milan Road	Altered	Category A

61 Milan Road	Altered	Category A
62 Milan Road	Altered	Category A
62 Milan Road	Altered	Category A
63 Milan Road	Altered	Category A
63 Milan Road	Altered	Category B
64 Milan Road	Altered	Category A
66 Milan Road	Altered	Category A
3/47 Milan Road	Altered	Category A
3/47 Milan Road	Altered	Category A
1/2 Milan Road	Altered	Category A
2A Milan Road	Altered	Category A
53A Milan Road	Altered	Category A
58A Milan Road	Altered	Category A
58A Milan Road	Altered	Category A
58A Milan Road	Altered	Category A
58A Milan Road	Altered	Category A
5A Milan Road	Altered	Category A
64A Milan Road	Altered	Category A
10 Noel Burnside Road	Altered	Category A
4 Plunket Avenue	Altered	Category B
7 Plunket Avenue	Altered	Category A
8 Plunket Avenue	Altered	Category A
9 Plunket Avenue	Altered	Category A
10 Plunket Avenue	Altered	Category A
11 Plunket Avenue	Altered	Category A
12 Plunket Avenue	Altered	Category A
14 Plunket Avenue	Altered	Category A
11A Plunket Avenue	Altered	Category A
6A Plunket Avenue	Altered	Category A
7A Plunket Avenue	Altered	Category A
8A Plunket Avenue	Altered	Category A
2 Puhinui Road	Altered	Category A

2 Puhinui Road	Altered	Category A
133 Puhinui Road	Altered	Category A
135 Puhinui Road	Altered	Category A
137 Puhinui Road	Altered	Category B
139 Puhinui Road	Altered	Category B
141 Puhinui Road	Altered	Category B
143 Puhinui Road	Altered	Category A
145 Puhinui Road	Altered	Category A
147 Puhinui Road	Altered	Category A
151 Puhinui Road	Altered	Category A
159 Puhinui Road	Altered	Category A
159 Puhinui Road	Altered	Category A
165 Puhinui Road	Altered	Category A
169 Puhinui Road	Altered	Category A
175 Puhinui Road	Altered	Category B
177 Puhinui Road	Altered	Category A
179 Puhinui Road	Altered	Category A
179 Puhinui Road	Altered	Category A
180 Puhinui Road	Altered	Category A
181 Puhinui Road	Altered	Category A
183 Puhinui Road	Altered	Category A
185 Puhinui Road	Altered	Category A
191 Puhinui Road	Altered	Category A
195 Puhinui Road	Altered	Category A
195 Puhinui Road	Altered	Category A
197 Puhinui Road	Altered	Category A
197 Puhinui Road	Altered	Category A
197 Puhinui Road	Altered	Category A
205 Puhinui Road	Altered	Category A
207 Puhinui Road	Altered	Category A
209 Puhinui Road	Altered	Category A
211 Puhinui Road	Altered	Category B

211 Puhinui Road	Altered	Category B
213 Puhinui Road	Altered	Category A
215 Puhinui Road	Altered	Category A
217 Puhinui Road	Altered	Category A
218 Puhinui Road	Altered	Category A
219 Puhinui Road	Altered	Category A
219 Puhinui Road	Altered	Category A
221 Puhinui Road	Altered	Category A
223 Puhinui Road	Altered	Category A
223 Puhinui Road	Altered	Category A
224 Puhinui Road	Altered	Category A
225 Puhinui Road	Altered	Category A
226 Puhinui Road	Altered	Category A
226 Puhinui Road	Altered	Category A
226 Puhinui Road	Altered	Category A
227 Puhinui Road	Altered	Category A
228 Puhinui Road	Altered	Category A
228 Puhinui Road	Altered	Category A
229 Puhinui Road	Altered	Category A
231 Puhinui Road	Altered	Category A
232 Puhinui Road	Altered	Category A
233 Puhinui Road	Altered	Category A
235 Puhinui Road	Altered	Category A
237 Puhinui Road	Altered	Category A
239 Puhinui Road	Altered	Category A
241 Puhinui Road	Altered	Category A
243 Puhinui Road	Altered	Category A
245 Puhinui Road	Altered	Category A
249 Puhinui Road	Altered	Category A
253 Puhinui Road	Altered	Category A
255 Puhinui Road	Altered	Category A
257 Puhinui Road	Altered	Category A

259 Puhinui Road	Altered	Category A
261 Puhinui Road	Altered	Category A
263 Puhinui Road	Altered	Category A
267 Puhinui Road	Altered	Category A
269 Puhinui Road	Altered	Category B
271 Puhinui Road	Altered	Category B
272 Puhinui Road	Altered	Category A
272 Puhinui Road	Altered	Category A
273 Puhinui Road	Altered	Category B
274 Puhinui Road	Altered	Category A
275 Puhinui Road	Altered	Category B
277 Puhinui Road	Altered	Category B
281 Puhinui Road	Altered	Category B
283 Puhinui Road	Altered	Category A
283 Puhinui Road	Altered	Category B
308 Puhinui Road	Altered	Category B
314 Puhinui Road	Altered	Category C
1/187 Puhinui Road	Altered	Category B
1/251 Puhinui Road	Altered	Category B
1/279 Puhinui Road	Altered	Category B
135A Puhinui Road	Altered	Category A
139A Puhinui Road	Altered	Category A
141A Puhinui Road	Altered	Category A
143A Puhinui Road	Altered	Category A
147A Puhinui Road	Altered	Category A
148A Puhinui Road	Altered	Category B
148B Puhinui Road	Altered	Category A
175A Puhinui Road	Altered	Category A
176A Puhinui Road	Altered	Category A
177A Puhinui Road	Altered	Category B
181A Puhinui Road	Altered	Category B
185A Puhinui Road	Altered	Category A

186A Puhinui Road	Altered	Category B
188A Puhinui Road	Altered	Category A
190A Puhinui Road	Altered	Category A
2/187 Puhinui Road	Altered	Category B
2/199 Puhinui Road	Altered	Category B
2/249 Puhinui Road	Altered	Category A
2/251 Puhinui Road	Altered	Category A
2/257 Puhinui Road	Altered	Category A
2/270 Puhinui Road	Altered	Category A
2/270 Puhinui Road	Altered	Category A
200A Puhinui Road	Altered	Category A
205A Puhinui Road	Altered	Category A
209A Puhinui Road	Altered	Category A
221A Puhinui Road	Altered	Category A
225A Puhinui Road	Altered	Category A
227A Puhinui Road	Altered	Category A
229A Puhinui Road	Altered	Category A
233A Puhinui Road	Altered	Category A
243A Puhinui Road	Altered	Category A
255A Puhinui Road	Altered	Category A
264A Puhinui Road	Altered	Category A
275A Puhinui Road	Altered	Category A
276A Puhinui Road	Altered	Category A
278A Puhinui Road	Altered	Category A
283A Puhinui Road	Altered	Category A
290B Puhinui Road	Altered	Category C
292B Puhinui Road	Altered	Category C
294A Puhinui Road	Altered	Category C
3/150 Puhinui Road	Altered	Category A
3/150 Puhinui Road	Altered	Category A
3/251 Puhinui Road	Altered	Category A
3/298 Puhinui Road	Altered	Category C

300A Puhinui Road	Altered	Category B
312A Puhinui Road	Altered	Category A
314A Puhinui Road	Altered	Category A
4/298 Puhinui Road	Altered	Category A
5/298 Puhinui Road	Altered	Category A
7 Ranfurly Road	Altered	Category A
8 Ranfurly Road	Altered	Category A
12 Ranfurly Road	Altered	Category A
1/10 Ranfurly Road	Altered	Category A
2/10 Ranfurly Road	Altered	Category A
3/10 Ranfurly Road	Altered	Category A
12A Ranfurly Road	Altered	Category A
3 Raymond Road	Altered	Category A
4 Raymond Road	Altered	Category A
5 Raymond Road	Altered	Category A
6 Raymond Road	Altered	Category A
7 Raymond Road	Altered	Category A
8 Raymond Road	Altered	Category A
8 Raymond Road	Altered	Category A
8 Raymond Road	Altered	Category A
4A Raymond Road	Altered	Category A
5A Raymond Road	Altered	Category A
6A Raymond Road	Altered	Category A
7A Raymond Road	Altered	Category A
16 Sabi Place	Altered	Category A
17 Sabi Place	Altered	Category A
113 Wallace Road	Altered	Category A
118 Wallace Road	Altered	Category A
121 Wallace Road	Altered	Category A
135 Wallace Road	Altered	Category A
135 Wallace Road	Altered	Category A
1/116 Wallace Road	Altered	Category A



1/116 Wallace Road	Altered	Category A
1/119 Wallace Road	Altered	Category A
1/129 Wallace Road	Altered	Category A
121A Wallace Road	Altered	Category A
121B Wallace Road	Altered	Category A
130A Wallace Road	Altered	Category A
130B Wallace Road	Altered	Category A
2/119 Wallace Road	Altered	Category A
2/129 Wallace Road	Altered	Category A
3/119 Wallace Road	Altered	Category A
3/129 Wallace Road	Altered	Category A
4/119 Wallace Road	Altered	Category A
6/127 Wallace Road	Altered	Category A
6/127 Wallace Road	Altered	Category A
6/127 Wallace Road	Altered	Category A
6/127 Wallace Road	Altered	Category A
6/127 Wallace Road	Altered	Category A
6/127 Wallace Road	Altered	Category A
144 Wyllie Road	Altered	Category A
145 Wyllie Road	Altered	Category A
146 Wyllie Road	Altered	Category A
148 Wyllie Road	Altered	Category A
149 Wyllie Road	Altered	Category A
150 Wyllie Road	Altered	Category A
151 Wyllie Road	Altered	Category A
152 Wyllie Road	Altered	Category A
154 Wyllie Road	Altered	Category B
1/147 Wyllie Road	Altered	Category A
146A Wyllie Road	Altered	Category A
148A Wyllie Road	Altered	Category A

**NoR 4a**

Address	New or Altered Road	Noise Criteria Category
485 Puhinui Road	Altered	Category A
485 Puhinui Road	Altered	Category C
485 Puhinui Road	Altered	Category C
16 Sabi Place	Altered	Category A
17 Sabi Place	Altered	Category A

**Schedule 3: Identified Biodiversity Areas**

**NoR 1**

**Pre-construction long tailed bat and wetland bird survey area(s)**



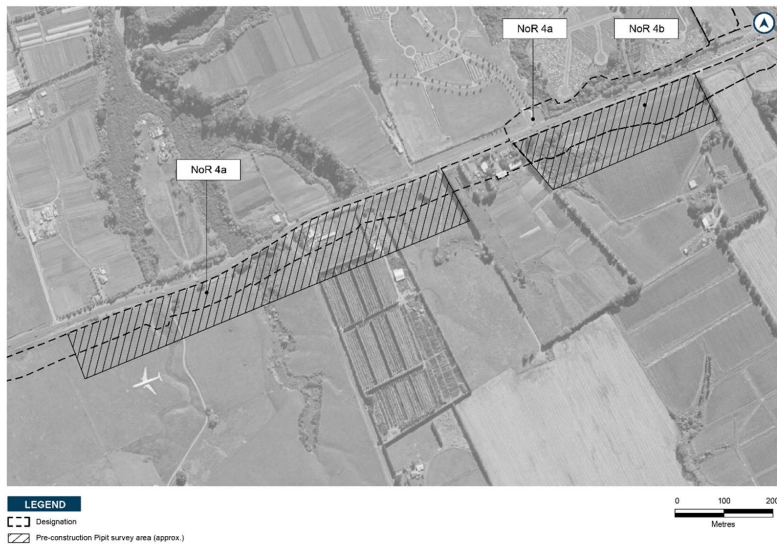


**NoR 4a**

**Pre-construction wetland bird survey area**



**Pre-construction pipit survey area**



Schedule 4: Trees to be included in the Tree Management Plan

NoR 1





LEGEND  
 Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    No R 1    0 20 40  
 Meters



LEGEND  
 Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    No R 1    0 20 40  
 Meters



LEGEND  
 Designation Boundary ● Tree/Group of Trees - - - NoR\_Boundary No R 1 0 20 40  
 Meters



LEGEND  
 Designation Boundary ● Tree/Group of Trees - - - NoR\_Boundary No R 1 0 20 40  
 Meters



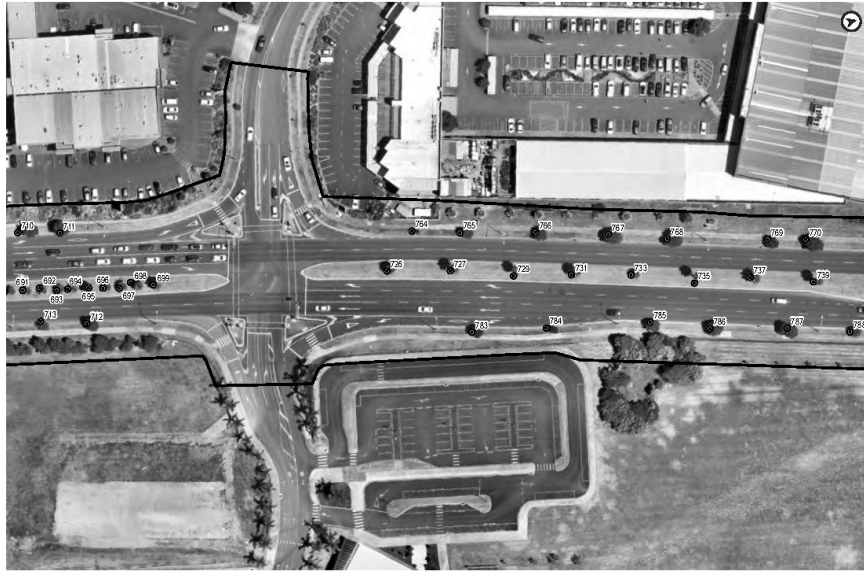


**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    No R 1    0 20 40  
 Meters

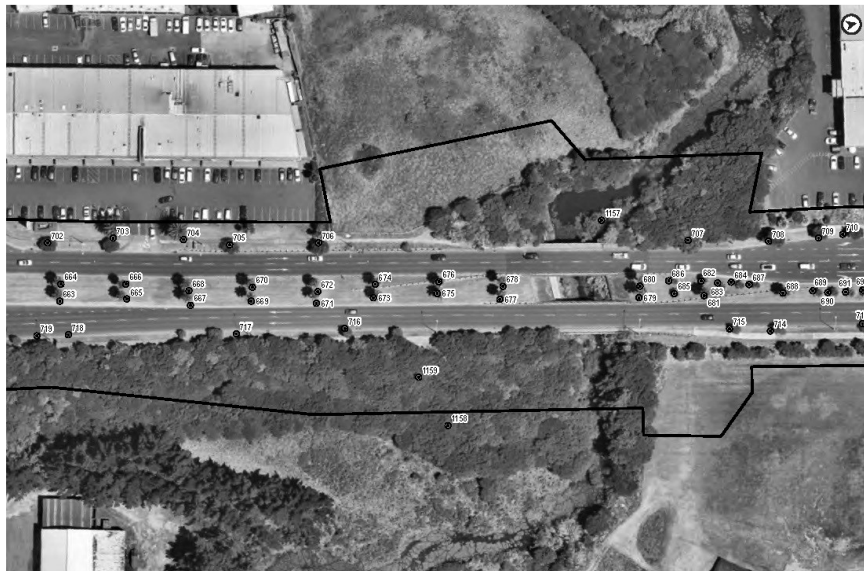


**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    No R 1    0 20 40  
 Meters





**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    No R 1    0 20 40  
 Meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    No R 1    0 20 40  
 Meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    No R 1    0 20 40  
 Meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    No R 1    0 20 40  
 Meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    No R 1    0 20 40  
Meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    No R 1    0 20 40  
Meters



Tree No.	Vegetation Type	Protection	Species	Age
426	Single tree	Road Reserve	Pohutukawa	Semi - Mature
427	Single tree	Road Reserve	Pohutukawa	Semi - Mature
428	Single tree	Road Reserve	Pohutukawa	Semi - Mature
429	Single tree	Road Reserve	Pohutukawa	Semi - Mature
430	Single tree	Road Reserve	London Plane	Semi - Mature
431	Single tree	Road Reserve	Pohutukawa	Semi - Mature
432	Single tree	Road Reserve	London Plane	Semi - Mature
445	Single tree	Road Reserve	Pohutukawa	Semi - Mature
434	Single tree	Road Reserve	Pohutukawa	Semi - Mature
435	Single tree	Road Reserve	Titoki	Semi - Mature
436	Single tree	Road Reserve	Plane	Semi - Mature
437	Single tree	Road Reserve	Plane	Semi - Mature
438	Single tree	Road Reserve	Pohutukawa	Semi - Mature
439	Single tree	Road Reserve	Pohutukawa	Semi - Mature
440	Single tree	Road Reserve	Pohutukawa	Semi - Mature
441	Single tree	Road Reserve	Ash	Semi - Mature
442	Single tree	Road Reserve	Pohutukawa	Semi - Mature
443	Single tree	Road Reserve	Pohutukawa	Semi - Mature
444	Single tree	Road Reserve	Pohutukawa	Semi - Mature
433	Single tree	Road Reserve	Pohutukawa	Semi - Mature
446	Single tree	Road Reserve	Pohutukawa	Semi - Mature
447	Single tree	Road Reserve	Pohutukawa	Semi - Mature
448	Single tree	Road Reserve	Pohutukawa	Semi - Mature
449	Single tree	Road Reserve	Pohutukawa	Semi - Mature
450	Single tree	Road Reserve	Plane	Semi - Mature
451	Single tree	Road Reserve	Plane	Semi - Mature
452	Single tree	Road Reserve	Pohutukawa	Semi - Mature
453	Single tree	Road Reserve	Pohutukawa	Semi - Mature
454	Single tree	Road Reserve	Pohutukawa	Semi - Mature
455	Single tree	Road Reserve	Pohutukawa	Semi - Mature
700	Single tree	Road Reserve	Pohutukawa	Semi - Mature
457	Single tree	Road Reserve	Pohutukawa	Semi - Mature
458	Single tree	Road Reserve	Washingtonia Palm	Mature
459	Single tree	Road Reserve	Washingtonia Palm	Mature

460	Single tree	Road Reserve	Washingtonia Palm	Mature
461	Single tree	Road Reserve	Washingtonia Palm	Mature
462	Single tree	Road Reserve	Washingtonia Palm	Mature
463	Single tree	Road Reserve	Washingtonia Palm	Mature
464	Single tree	Road Reserve	Washingtonia Palm	Mature
465	Single tree	Road Reserve	Washingtonia Palm	Mature
466	Single tree	Road Reserve	Washingtonia Palm	Mature
467	Single tree	Road Reserve	Washingtonia Palm	Mature
468	Single tree	Road Reserve	Washingtonia Palm	Mature
469	Single tree	Road Reserve	Washingtonia Palm	Mature
470	Single tree	Road Reserve	Washingtonia Palm	Mature
471	Single tree	Road Reserve	Washingtonia Palm	Mature
472	Single tree	Road Reserve	Washingtonia Palm	Mature
473	Single tree	Road Reserve	Washingtonia Palm	Mature
474	Single tree	Road Reserve	Washingtonia Palm	Mature
475	Single tree	Road Reserve	Washingtonia Palm	Mature
476	Single tree	Road Reserve	Washingtonia Palm	Mature
477	Single tree	Road Reserve	Washingtonia Palm	Mature
478	Single tree	Road Reserve	Washingtonia Palm	Mature
479	Single tree	Road Reserve	Washingtonia Palm	Mature
480	Single tree	Road Reserve	Washingtonia Palm	Mature
481	Single tree	Road Reserve	Washingtonia Palm	Mature
482	Single tree	Road Reserve	Washingtonia Palm	Mature
483	Single tree	Road Reserve	Washingtonia Palm	Mature
484	Single tree	Road Reserve	Washingtonia Palm	Mature
485	Single tree	Road Reserve	Washingtonia Palm	Mature
486	Single tree	Road Reserve	Washingtonia Palm	Mature
487	Single tree	Road Reserve	Washingtonia Palm	Mature
488	Single tree	Road Reserve	Washingtonia Palm	Mature
489	Single tree	Road Reserve	Washingtonia Palm	Mature
490	Single tree	Road Reserve	Washingtonia Palm	Mature
491	Single tree	Road Reserve	Washingtonia Palm	Mature
492	Single tree	Road Reserve	Washingtonia Palm	Mature
493	Single tree	Road Reserve	Washingtonia Palm	Mature
494	Single tree	Road Reserve	Washingtonia Palm	Mature



495	Single tree	Road Reserve	Washingtonia Palm	Mature
496	Single tree	Road Reserve	Washingtonia Palm	Mature
497	Single tree	Road Reserve	Washingtonia Palm	Mature
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507	Single tree	Road Reserve	Washingtonia Palm	Mature
508	Single tree	Road Reserve	Pohutukawa	Semi - Mature
509	Single tree	Road Reserve	Pohutukawa	Semi - Mature
510	Single tree	Road Reserve	Pohutukawa	Semi - Mature
511	Single tree	Road Reserve	Pohutukawa	Semi - Mature
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515	Single tree	Road Reserve	Pohutukawa	Semi - Mature
516	Single tree	Road Reserve	Pohutukawa	Semi - Mature
517	Single tree	Road Reserve	Pohutukawa	Semi - Mature
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519	Single tree	Road Reserve	Pohutukawa	Semi - Mature
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524	Single tree	Road Reserve	Pohutukawa	Semi - Mature
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526	Single tree	Road Reserve	Pohutukawa	Semi - Mature
527	Single tree	Road Reserve	Pohutukawa	Semi - Mature
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532	Single tree	Road Reserve	Pohutukawa	Semi - Mature
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541	Single tree	Road Reserve	Pohutukawa	Semi - Mature
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554	Single tree	Road Reserve	Pohutukawa	Semi - Mature
555	Single tree	Road Reserve	Puriri	Semi - Mature
556	Single tree	Road Reserve	Washingtonia Palm	Mature
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701	Single tree	Road Reserve	Pohutukawa	Semi - Mature
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725	Single tree	Road Reserve	Pohutukawa	Semi - Mature
764	Single tree	Road Reserve	Pohutukawa	Mature
765	Single tree	Road Reserve	Pohutukawa	Mature
726	Single tree	Road Reserve	Washingtonia Palm	Mature
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763	Single tree	Road Reserve	Washingtonia Palm	Mature
766	Single tree	Road Reserve	Pohutukawa	Mature
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827	Single tree	Road Reserve	Pohutukawa	Mature
828	Single tree	Road Reserve	Pohutukawa	Mature
829	Single tree	Road Reserve	Pohutukawa	Mature
833	Single tree	Road Reserve	Pohutukawa	Mature
834	Single tree	Road Reserve	Pohutukawa	Mature
830	Group of Trees	Road Reserve	Mixed natives mainly kanuka, Norfolk Pine	
831	Single tree	Road Reserve	Norfolk Island Pine	Mature
832	Group of Trees	Road Reserve	Mixed natives, mainly lemonwood and Pohutukawa	
835	Single tree	Road Reserve	Pohutukawa	Mature
836	Single tree	Road Reserve	Pohutukawa	Mature
840	Single tree	Road Reserve	Pohutukawa	Mature
841	Single tree	Road Reserve	Pohutukawa	Mature
837	Group of Trees	Road Reserve	Mixed Natives, lemonwood, Ngaio, Pohutukawa	Mature
838	Single tree	Road Reserve	Palm	Mature
839	Group of Trees	Road Reserve	Mixed Natives, lemonwood, Ngaio, Pohutukawa	Mature

842	Single tree	Road Reserve	Pohutukawa	Mature
843	Single tree	Road Reserve	Pohutukawa	Mature
845	Single tree	Road Reserve	Pohutukawa	Mature
846	Single tree	Road Reserve	Pohutukawa	Mature
844	Group of Trees	Road Reserve	Mixed Natives, lemonwood, Ngaio, Pohutukawa	Mature
847	Single tree	Road Reserve	Pohutukawa	Mature
848	Single tree	Road Reserve	Pohutukawa	Mature
850	Single tree	Road Reserve	Pohutukawa	Mature
851	Single tree	Road Reserve	Pohutukawa	Mature
849	Group of Trees	Road Reserve	Mixed Natives, lemonwood, Ngaio, Pohutukawa	Mature
852	Single tree	Road Reserve	Pohutukawa	Mature
853	Single tree	Road Reserve	Pohutukawa	Mature
854	Single tree	Road Reserve	Pohutukawa	Mature
855	Single tree	Road Reserve	Pohutukawa	Mature
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869	Single tree	Road Reserve	Pohutukawa	Mature
870	Single tree	Road Reserve	Pohutukawa	Mature
1073	Single tree	Road Reserve	Pohutukawa	Mature
1074	Single tree	Road Reserve	Pohutukawa	Mature
871	Group of Trees	Road Reserve	Mixed Natives, Pohutukawa	Mature

871a	Group of Trees	Road Reserve	Mixed Natives, Pohutukawa	Mature
872	Single tree	Road Reserve	Washingtonia Palm	Mature
873	Single tree	Road Reserve	Washingtonia Palm	Mature
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958	Single tree	Road Reserve	Washingtonia Palm	Mature
959	Single tree	Road Reserve	Washingtonia Palm	Mature
960	Single tree	Road Reserve	Washingtonia Palm	Mature
961	Single tree	Road Reserve	Washingtonia Palm	Mature
962	Single tree	Road Reserve	Washingtonia Palm	Mature
963	Single tree	Road Reserve	Washingtonia Palm	Mature
964	Single tree	Road Reserve	Washingtonia Palm	Mature
965	Single tree	Road Reserve	Washingtonia Palm	Mature
966	Single tree	Road Reserve	Washingtonia Palm	Mature
967	Single tree	Road Reserve	Washingtonia Palm	Mature
968	Single tree	Road Reserve	Washingtonia Palm	Mature
969	Single tree	Road Reserve	Washingtonia Palm	Mature
970	Single tree	Road Reserve	Washingtonia Palm	Mature
971	Single tree	Road Reserve	Washingtonia Palm	Mature
972	Single tree	Road Reserve	Washingtonia Palm	Mature
973	Single tree	Road Reserve	Washingtonia Palm	Mature
974	Single tree	Road Reserve	Washingtonia Palm	Mature
975	Single tree	Road Reserve	Washingtonia Palm	Mature

976	Single tree	Road Reserve	Washingtonia Palm	Mature
977	Single tree	Road Reserve	Washingtonia Palm	Mature
978	Single tree	Road Reserve	Washingtonia Palm	Mature
979	Single tree	Road Reserve	Washingtonia Palm	Mature
980	Single tree	Road Reserve	Washingtonia Palm	Mature
981	Single tree	Road Reserve	Washingtonia Palm	Mature
982	Single tree	Road Reserve	Washingtonia Palm	Mature
983	Single tree	Road Reserve	Washingtonia Palm	Mature
984	Single tree	Road Reserve	Washingtonia Palm	Mature
985	Single tree	Road Reserve	Washingtonia Palm	Mature
986	Single tree	Road Reserve	Washingtonia Palm	Mature
987	Single tree	Road Reserve	Washingtonia Palm	Mature
988	Single tree	Road Reserve	Washingtonia Palm	Mature
989	Single tree	Road Reserve	Washingtonia Palm	Mature
990	Single tree	Road Reserve	Washingtonia Palm	Mature
991	Single tree	Road Reserve	Washingtonia Palm	Mature
992	Single tree	Road Reserve	Washingtonia Palm	Mature
993	Single tree	Road Reserve	Washingtonia Palm	Mature
994	Single tree	Road Reserve	Washingtonia Palm	Mature
995	Single tree	Road Reserve	Washingtonia Palm	Mature
996	Single tree	Road Reserve	Washingtonia Palm	Mature
997	Single tree	Road Reserve	Washingtonia Palm	Mature
998	Single tree	Road Reserve	Washingtonia Palm	Mature
999	Single tree	Road Reserve	Washingtonia Palm	Mature
1000	Single tree	Road Reserve	Washingtonia Palm	Mature
1001	Single tree	Road Reserve	Washingtonia Palm	Mature
1002	Single tree	Road Reserve	Washingtonia Palm	Mature
1003	Single tree	Road Reserve	Washingtonia Palm	Mature
1004	Single tree	Road Reserve	Washingtonia Palm	Mature
1005	Single tree	Road Reserve	Washingtonia Palm	Mature
1006	Single tree	Road Reserve	Washingtonia Palm	Mature
1007	Single tree	Road Reserve	Washingtonia Palm	Mature
1008	Single tree	Road Reserve	Washingtonia Palm	Mature
1009	Single tree	Road Reserve	Washingtonia Palm	Mature
1010	Single tree	Road Reserve	Washingtonia Palm	Mature

1011	Single tree	Road Reserve	Washingtonia Palm	Mature
1012	Single tree	Road Reserve	Washingtonia Palm	Mature
1013	Single tree	Road Reserve	Washingtonia Palm	Mature
1014	Single tree	Road Reserve	Washingtonia Palm	Mature
1015	Single tree	Road Reserve	Washingtonia Palm	Mature
1016	Single tree	Road Reserve	Washingtonia Palm	Mature
1017	Single tree	Road Reserve	Washingtonia Palm	Mature
1018	Single tree	Road Reserve	Washingtonia Palm	Mature
1019	Single tree	Road Reserve	Washingtonia Palm	Mature
1020	Single tree	Road Reserve	Washingtonia Palm	Mature
1021	Single tree	Road Reserve	Washingtonia Palm	Mature
1022	Single tree	Road Reserve	Washingtonia Palm	Mature
1023	Single tree	Road Reserve	Washingtonia Palm	Mature
1024	Single tree	Road Reserve	Washingtonia Palm	Mature
1025	Single tree	Road Reserve	Washingtonia Palm	Mature
1026	Single tree	Road Reserve	Washingtonia Palm	Mature
1027	Single tree	Road Reserve	Washingtonia Palm	Mature
1028	Single tree	Road Reserve	Washingtonia Palm	Mature
1029	Single tree	Road Reserve	Washingtonia Palm	Mature
1030	Single tree	Road Reserve	Washingtonia Palm	Mature
1031	Single tree	Road Reserve	Washingtonia Palm	Mature
1032	Single tree	Road Reserve	Washingtonia Palm	Mature
1033	Single tree	Road Reserve	Washingtonia Palm	Mature
1034	Single tree	Road Reserve	Washingtonia Palm	Mature
1035	Single tree	Road Reserve	Washingtonia Palm	Mature
1036	Single tree	Road Reserve	Washingtonia Palm	Mature
1037	Single tree	Road Reserve	Washingtonia Palm	Mature
1038	Single tree	Road Reserve	Washingtonia Palm	Mature
1039	Single tree	Road Reserve	Washingtonia Palm	Mature
1040	Single tree	Road Reserve	Washingtonia Palm	Mature
1041	Single tree	Road Reserve	Washingtonia Palm	Mature
1042	Single tree	Road Reserve	Washingtonia Palm	Mature
1043	Single tree	Road Reserve	Washingtonia Palm	Mature
1044	Single tree	Road Reserve	Washingtonia Palm	Mature
1045	Single tree	Road Reserve	Washingtonia Palm	Mature



1046	Single tree	Road Reserve	Washingtonia Palm	Mature
1047	Single tree	Road Reserve	Washingtonia Palm	Mature
1048	Single tree	Road Reserve	Washingtonia Palm	Mature
1049	Single tree	Road Reserve	Washingtonia Palm	Mature
1050	Single tree	Road Reserve	Washingtonia Palm	Mature
1051	Single tree	Road Reserve	Washingtonia Palm	Mature
1052	Single tree	Road Reserve	Washingtonia Palm	Mature
1053	Single tree	Road Reserve	Washingtonia Palm	Mature
1054	Single tree	Road Reserve	Washingtonia Palm	Mature
1055	Single tree	Road Reserve	Washingtonia Palm	Mature
1056	Single tree	Road Reserve	Washingtonia Palm	Mature
1057	Single tree	Road Reserve	Washingtonia Palm	Mature
1058	Single tree	Road Reserve	Washingtonia Palm	Mature
1059	Single tree	Road Reserve	Washingtonia Palm	Mature
1060	Single tree	Road Reserve	Washingtonia Palm	Mature
1061	Single tree	Road Reserve	Washingtonia Palm	Mature
1062	Single tree	Road Reserve	Washingtonia Palm	Mature
1063	Single tree	Road Reserve	Washingtonia Palm	Mature
1064	Single tree	Road Reserve	Washingtonia Palm	Mature
1072	Group of Trees	Road Reserve	Ngaio, Pohutukawa	Sem-mature
1076	Single tree	Road Reserve	Pohutukawa	Mature
1077	Single tree	Road Reserve	Pohutukawa	Mature
1075	Group of Trees	Road Reserve	Mixed Natives, lemonwood, Ngaio, Pohutukawa	Mature
1078	Single tree	Road Reserve	Pohutukawa	Mature
1079	Single tree	Road Reserve	Pohutukawa	Mature
1080	Single tree	Road Reserve	Pohutukawa	Mature
1081	Single tree	Road Reserve	Pohutukawa	Mature
1083	Single tree	Road Reserve	Pohutukawa	Mature
1082	Group of Trees	Road Reserve	Pohutukawa, Broadleaf, Tarata	
1108	Single tree	Road Reserve	Pohutukawa	Mature
1112	Single tree	Road Reserve	Pohutukawa	Mature
1113	Single tree	Road Reserve	Pohutukawa	Mature

1109	Group of Trees	Road Reserve	Mixed Natives, Pohutukawa, Lemonwood	Mature
1110	Single tree	Road Reserve	Pin Oak	Semi - Mature
1111	Single tree	Road Reserve	Pin Oak	Semi - Mature
1115	Single tree	Road Reserve	Pohutukawa	Mature
1116	Single tree	Road Reserve	Pohutukawa	Mature
1114	Group of Trees	Road Reserve	Mixed Natives, Lemonwood, Ake Ake	Mature
1117	Single tree	Road Reserve	Pohutukawa	Mature
1118	Single tree	Road Reserve	Pohutukawa	Mature
1119	Single tree	Road Reserve	Pohutukawa	Mature
1120	Single tree	Road Reserve	Pohutukawa	Mature
711	Single tree	Road Reserve	Pohutukawa	Semi - Mature
456	Single tree	Road Reserve	Pohutukawa	Semi - Mature
1121	Group of Trees	Road Reserve	Ngaio	Mature
1155b	Griselinea hedge	Road Reserve	Griselinea hedge	Mature
1157	Group of Trees	Open Space	Manuka, Tarata, Ma hoe, Kowhai	Mature
1158	Group of Trees	Open Space	Manuka, Tarata, Ma hoe, Kowhai	Mature
1159	Group of Trees	Open Space/ riparian	Mixed Native, Manuka	Mature
1160	Group of Trees	Open Space/ riparian	Mixed Native, Manuka	Mature
1161	Group of Trees	Open Space	Mixed Native, Kanuka	Mature
1166	Single tree	Road Reserve	Liquid Amber	Semi - Mature
1167	Group of Trees	Open Space	Ngaio	Mature
1177	Single tree	Road Reserve	Liquid Amber	Semi - Mature
1178	Single tree	Road Reserve	Liquid Amber	Semi - Mature
1189	Single tree	Road Reserve	Pin Oak	Semi - Mature

**NoR 2**



**LEGEND**  
[Solid Line] Designation Boundary    ● Tree/Group of Trees    [Dashed Line] NoR 2 Boundary    NoR 2    0 20 40 Meters



**LEGEND**  
[Solid Line] Designation Boundary    ● Tree/Group of Trees    [Dashed Line] NoR 2 Boundary    NoR 2    0 20 40 Meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 20 40  
 METERS



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 20 40  
 METERS



LEGEND  
 Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 20 40  
 Meters



LEGEND  
 Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 20 40  
 Meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 20 40 Meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 20 40 Meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 20 40  
 meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 40 80  
 meters

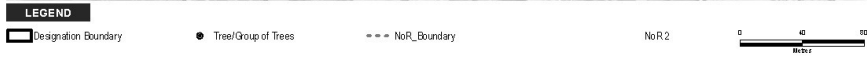


**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR 2    0 40 80  
 Meter



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR 2    0 20 40  
 Meter







**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 40 80  
 Meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 20 40  
 Meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 20 40 meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 20 40 meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 20 40  
 Meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 40 80  
 Meters



**LEGEND**  
— Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 20 40  
Feet



**LEGEND**  
— Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 20 40  
Feet



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 20 40  
 Meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR2    0 40 80  
 Meters

Tree No.	Vegetation Type	Protection	Species	Age
31	Single tree	Road Reserve	Magnolia	Mature
33	Single tree	Road Reserve	Pohutukawa	Semi - Mature
34	Single tree	Road Reserve	Pohutukawa	Semi - Mature
35	Single tree	Road Reserve	Bottlebrush	Semi - Mature
36	Single tree	Road Reserve	Pohutukawa	Semi - Mature
37	Single tree	Road Reserve	Pohutukawa	Semi - Mature
38	Single tree	Road Reserve	Pohutukawa	Semi - Mature
39	Single tree	Road Reserve	Pohutukawa	Semi - Mature
40	Single tree	Road Reserve	Pohutukawa	Semi - Mature
41	Single tree	Road Reserve	Pohutukawa	Semi - Mature
42	Single tree	Road Reserve	Pohutukawa	Semi - Mature
43	Single tree	Road Reserve	Pohutukawa	Semi - Mature
44	Single tree	Road Reserve	Pohutukawa	Semi - Mature
45	Single tree	Road Reserve	Pohutukawa	Semi - Mature
46	Single tree	Road Reserve	Pohutukawa	Semi - Mature
47	Single tree	Road Reserve	Pohutukawa	Semi - Mature
48	Single tree	Road Reserve	Pohutukawa	Semi - Mature
49	Single tree	Road Reserve	Pohutukawa	Semi - Mature
50	Single tree	Road Reserve	Pohutukawa	Semi - Mature
51	Single tree	Road Reserve	Pohutukawa	Semi - Mature
52	Single tree	Road Reserve	Pohutukawa	Semi - Mature
53	Single tree	Road Reserve	Pohutukawa	Semi - Mature
54	Single tree	Road Reserve	Pohutukawa	Semi - Mature
55	Single tree	Road Reserve	Pohutukawa	Semi - Mature
56	Single tree	Road Reserve	Pohutukawa	Semi - Mature
57	Single tree	Road Reserve	Pohutukawa	Semi - Mature
58	Single tree	Road Reserve	Pohutukawa	Semi - Mature
59	Single tree	Road Reserve	Pohutukawa	Semi - Mature
60	Single tree	Road Reserve	Pohutukawa	Semi - Mature
61	Single tree	Road Reserve	Liquid Amber	Semi - Mature
62	Single tree	Road Reserve	Cherry	Mature
63	Single tree	Road Reserve	Grevilia	Mature
64	Single tree	Road Reserve	Spindle Tree	Mature
65	Single tree	Road Reserve	Titoki	Semi - Mature

66	Single tree	Road Reserve	Pohutukawa	Semi - Mature
67	Single tree	Road Reserve	Titoki	Semi - Mature
68	Single tree	Road Reserve	Pohutukawa	Semi - Mature
69	Single tree	Road Reserve	Bottlebrush	Semi - Mature
70	Single tree	Road Reserve	Titoki	Semi - Mature
71	Single tree	Road Reserve	Pohutukawa	Semi - Mature
72	Single tree	Road Reserve	Titoki	Semi - Mature
73	Single tree	Road Reserve	Pohutukawa	Semi - Mature
74	Single tree	Road Reserve	Pohutukawa	Semi - Mature
75	Single tree	Road Reserve	Pohutukawa	Mature
76	Single tree	Road Reserve	Pohutukawa	Mature
77	Single tree	Road Reserve	Liquid Amber	Mature
78	Single tree	Road Reserve	Liquid Amber	Mature
79	Single tree	Road Reserve	Pohutukawa	Semi - Mature
80	Single tree	Road Reserve	Pohutukawa	Semi - Mature
81	Single tree	Road Reserve	Pohutukawa	Semi - Mature
82	Single tree	Road Reserve	Pohutukawa	Semi - Mature
83	Single tree	Road Reserve	Pohutukawa	Semi - Mature
84	Single tree	Road Reserve	Pohutukawa	Semi - Mature
85	Single tree	Road Reserve	Pohutukawa	Semi - Mature
86	Single tree	Road Reserve	Pohutukawa	Semi - Mature
87	Single tree	Road Reserve	Pohutukawa	Semi - Mature
88	Single tree	Road Reserve	Camphor Laurel	Mature
89	Single tree	Road Reserve	Privet	Mature
90	Single tree	Road Reserve	Magnolia	Semi - Mature
91	Single tree	Road Reserve	Pohutukawa	Semi - Mature
92	Single tree	Road Reserve	Pohutukawa	Semi - Mature
93	Single tree	Road Reserve	Pohutukawa	Semi - Mature
94	Single tree	Road Reserve	Pohutukawa	Semi - Mature
95	Single tree	Road Reserve	Norfolk Island Pine	Mature
96	Single tree	Road Reserve	Norfolk Island Pine	Mature
97	Single tree	Road Reserve	Norfolk Island Pine	Mature
98	Single tree	Road Reserve	Norfolk Island Pine	Mature
99	Single tree	Road Reserve	Norfolk Island Pine	Mature
100	Single tree	Road Reserve	Norfolk Island Pine	Mature



101	Single tree	Road Reserve	Norfolk Island Pine	Mature
102	Single tree	Road Reserve	Norfolk Island Pine	Mature
103	Single tree	Road Reserve	Norfolk Island Pine	Mature
104	Single tree	Road Reserve	Norfolk Island Pine	Mature
105	Single tree	Road Reserve	Norfolk Island Pine	Mature
106	Single tree	Road Reserve	Norfolk Island Pine	Mature
107	Single tree	Road Reserve	Norfolk Island Pine	Mature
108	Single tree	Road Reserve	Norfolk Island Pine	Mature
109	Single tree	Road Reserve	Norfolk Island Pine	Mature
110	Single tree	Road Reserve	Norfolk Island Pine	Mature
111	Single tree	Road Reserve	Norfolk Island Pine	Mature
112	Single tree	Road Reserve	Norfolk Island Pine	Mature
113	Single tree	Road Reserve	Gum	Mature
114	Single tree	Road Reserve	Gum	Mature
115	Single tree	Road Reserve	Norfolk Island Pine	Semi - Mature
116	Single tree	Road Reserve	Norfolk Island Pine	Mature
117	Single tree	Road Reserve	Norfolk Island Pine	Semi - Mature
118	Single tree	Road Reserve	Norfolk Island Pine	Semi - Mature
119	Single tree	Road Reserve	Norfolk Island Pine	Semi - Mature
120	Single tree	Road Reserve	Gum	Mature
121	Single tree	Road Reserve	Norfolk Island Pine	Mature
122	Single tree	Road Reserve	Norfolk Island Pine	Mature
123	Single tree	Road Reserve	Gum	Mature
124	Single tree	Road Reserve	Gum	Mature
125	Single tree	Road Reserve	Norfolk Island Pine	Semi - Mature
126	Single tree	Road Reserve	Norfolk Island Pine	Semi - Mature
127	Single tree	Road Reserve	Norfolk Island Pine	Mature
128	Single tree	Road Reserve	Norfolk Island Pine	Mature
129	Single tree	Road Reserve	Norfolk Island Pine	Semi - Mature
130	Single tree	Road Reserve	Norfolk Island Pine	Mature
131	Single tree	Road Reserve	Norfolk Island Pine	Mature
132	Single tree	Road Reserve	Norfolk Island Pine	Mature
133	Single tree	Road Reserve	Norfolk Island Pine	Mature
134	Single tree	Road Reserve	Norfolk Island Pine	Mature
135	Single tree	Road Reserve	Norfolk Island Pine	Mature

136	Single tree	Road Reserve	Canary Island Palm	Mature
137	Single tree	Road Reserve	Norfolk Island Pine	Mature
138	Single tree	Road Reserve	Norfolk Island Pine	Mature
139	Single tree	Road Reserve	Norfolk Island Pine	Semi - Mature
140	Single tree	Road Reserve	Puriri	Semi - Mature
141	Single tree	Road Reserve	Puriri	Semi - Mature
142	Single tree	Road Reserve	Puriri	Semi - Mature
143	Single tree	Road Reserve	Puriri	Semi - Mature
144	Single tree	Road Reserve	Puriri	Semi - Mature
145	Single tree	Road Reserve	Puriri	Semi - Mature
146	Single tree	Road Reserve	Puriri	Semi - Mature
147	Single tree	Road Reserve	Puriri	Semi - Mature
148	Single tree	Road Reserve	London Plane	Mature
149	Single tree	Road Reserve	London Plane	Mature
150	Single tree	Road Reserve	Pohutukawa	Young
151	Single tree	Road Reserve	Pohutukawa	Young
152	Single tree	Road Reserve	Pohutukawa	Young
153	Single tree	Road Reserve	Pohutukawa	Young
154	Single tree	Road Reserve	Pohutukawa	Young
155	Single tree	Road Reserve	Pohutukawa	Young
156	Single tree	Road Reserve	Pohutukawa	Semi - Mature
157	Single tree	Road Reserve	Pohutukawa	Semi - Mature
158	Single tree	Road Reserve	Pohutukawa	Semi - Mature
159	Single tree	Road Reserve	Pohutukawa	Semi - Mature
160	Single tree	Road Reserve	Pohutukawa	Semi - Mature
161	Single tree	Road Reserve	Pohutukawa	Semi - Mature
162	Single tree	Road Reserve	Pohutukawa	Semi - Mature
163	Single tree	Road Reserve	Pohutukawa	Semi - Mature
164	Single tree	Road Reserve	Pohutukawa	Semi - Mature
165	Single tree	Road Reserve	Pohutukawa	Semi - Mature
166	Single tree	Road Reserve	Pohutukawa	Semi - Mature
167	Single tree	Road Reserve	Pohutukawa	Semi - Mature
168	Single tree	Road Reserve	Pohutukawa	Semi - Mature
169	Single tree	Road Reserve	Pohutukawa	Semi - Mature
170	Single tree	Road Reserve	Pohutukawa	Semi - Mature

171	Single tree	Road Reserve	Pohutukawa	Semi - Mature
172	Single tree	Road Reserve	Pohutukawa	Semi - Mature
173	Single tree	Road Reserve	Pohutukawa	Semi - Mature
174	Single tree	Road Reserve	Titoki	Semi - Mature
175	Single tree	Road Reserve	Pohutukawa	Young
176	Single tree	Road Reserve	Pohutukawa	Young
177	Single tree	Road Reserve	Pohutukawa	Young
178	Single tree	Road Reserve	Pohutukawa	Young
179	Single tree	Road Reserve	Pohutukawa	Young
180	Single tree	Road Reserve	Pohutukawa	Young
181	Single tree	Road Reserve	Pohutukawa	Young
182	Single tree	Road Reserve	Pohutukawa	Young
183	Single tree	Road Reserve	Pohutukawa	Young
184	Single tree	Road Reserve	Pohutukawa	Young
185	Single tree	Road Reserve	Pohutukawa	Young
186	Single tree	Road Reserve	Pohutukawa	Young
187	Single tree	Road Reserve	Pohutukawa	Young
188	Single tree	Road Reserve	Pohutukawa	Young
189	Single tree	Road Reserve	Pohutukawa	Young
190	Single tree	Road Reserve	Pohutukawa	Young
191	Single tree	Road Reserve	Pohutukawa	Young
192	Single tree	Road Reserve	Pohutukawa	Young
193	Single tree	Road Reserve	Pohutukawa	Young
194	Single tree	Road Reserve	Pohutukawa	Young
195	Single tree	Road Reserve	Pohutukawa	Young
196	Single tree	Road Reserve	Pohutukawa	Young
197	Single tree	Road Reserve	Pohutukawa	Young
198	Single tree	Road Reserve	Pohutukawa	Young
199	Single tree	Road Reserve	Pohutukawa	Young
200	Single tree	Road Reserve	Pohutukawa	Young
201	Single tree	Road Reserve	Pohutukawa	Young
202	Single tree	Road Reserve	Pohutukawa	Semi - Mature
203	Single tree	Road Reserve	Pohutukawa	Semi - Mature
204	Single tree	Road Reserve	Pohutukawa	Semi - Mature
205	Single tree	Road Reserve	Pohutukawa	Semi - Mature

206	Single tree	Road Reserve	Pohutukawa	Semi - Mature
207	Single tree	Road Reserve	Titoki	Young
208	Single tree	Road Reserve	Kauri	Semi - Mature
209	Single tree	Road Reserve	Pohutukawa	Semi - Mature
210	Single tree	Road Reserve	Pohutukawa	Semi - Mature
211	Single tree	Road Reserve	Puriri	Semi - Mature
212	Single tree	Road Reserve	Pohutukawa	Semi - Mature
213	Single tree	Road Reserve	Pohutukawa	Semi - Mature
214	Single tree	Road Reserve	Pohutukawa	Semi - Mature
215	Single tree	Road Reserve	Pohutukawa	Semi - Mature
216	Single tree	Road Reserve	Pohutukawa	Semi - Mature
217	Single tree	Road Reserve	Ash	Mature
218	Single tree	Road Reserve	Ash	Mature
219	Single tree	Road Reserve	Ash	Mature
220	Single tree	Road Reserve	Ash	Mature
221	Single tree	Road Reserve	Pohutukawa	Mature
222	Single tree	Road Reserve	Pohutukawa	Mature
223	Single tree	Road Reserve	Pohutukawa	Mature
224	Single tree	Road Reserve	Pohutukawa	Mature
225	Single tree	Road Reserve	Pohutukawa	Mature
226	Single tree	Road Reserve	Pohutukawa	Mature
227	Single tree	Road Reserve	Pohutukawa	Mature
228	Single tree	Road Reserve	Pin Oak	Mature
229	Single tree	Road Reserve	Pin Oak	Mature
230	Single tree	Road Reserve	Fern Pine	Mature
231	Single tree	Road Reserve	Magnolia	Semi - Mature
232	Single tree	Road Reserve	Magnolia	Semi - Mature
233	Single tree	Road Reserve	Water Gum	Mature
234	Single tree	Road Reserve	Magnolia	Semi - Mature
235	Single tree	Road Reserve	Magnolia	Semi - Mature
236	Single tree	Road Reserve	Magnolia	Semi - Mature
237	Single tree	Road Reserve	Puriri	Semi - Mature
238	Single tree	Road Reserve	Puriri	Semi - Mature
239	Single tree	Road Reserve	Puriri	Mature
240	Single tree	Road Reserve	Puriri	Mature

241	Single tree	Road Reserve	Puriri	Semi - Mature
242	Single tree	Road Reserve	Puriri	Semi - Mature
243	Single tree	Road Reserve	Puriri	Semi - Mature
244	Single tree	Road Reserve	Puriri	Semi - Mature
245	Single tree	Road Reserve	Puriri	Semi - Mature
246	Single tree	Road Reserve	Norfolk Island Pine	Mature
247	Single tree	Road Reserve	Magnolia	Semi - Mature
248	Single tree	Road Reserve	Magnolia	Semi - Mature
249	Single tree	Road Reserve	Magnolia	Semi - Mature
250	Single tree	Road Reserve	Magnolia	Semi - Mature
251	Single tree	Road Reserve	Magnolia	Semi - Mature
252	Single tree	Road Reserve	Magnolia	Semi - Mature
253	Single tree	Road Reserve	Magnolia	Semi - Mature
254	Single tree	Road Reserve	Tulip Tree	Mature
255	Single tree	Road Reserve	Washingtonia Palm	Mature
256	Single tree	Road Reserve	Washingtonia Palm	Semi - Mature
257	Single tree	Road Reserve	Magnolia	Semi - Mature
258	Single tree	Road Reserve	Magnolia	Semi - Mature
259	Single tree	Road Reserve	Magnolia	Semi - Mature
260	Single tree	Road Reserve	Magnolia	Semi - Mature
261	Single tree	Road Reserve	Magnolia	Semi - Mature
262	Single tree	Road Reserve	Norfolk Island Pine	Mature
263	Single tree	Road Reserve	Norfolk Island Pine	Mature
264	Single tree	Road Reserve	Norfolk Island Pine	Mature
265	Single tree	Road Reserve	Norfolk Island Pine	Mature
266	Single tree	Road Reserve	Gum	Mature
267	Single tree	Road Reserve	Gum	Mature
268	Single tree	Road Reserve	Gum	Mature
269	Single tree	Road Reserve	Magnolia	Semi - Mature
270	Single tree	Road Reserve	Gum	Mature
271	Single tree	Road Reserve	Gum	Mature
272	Single tree	Road Reserve	Norfolk Island Pine	Mature
273	Single tree	Road Reserve	Puriri	Semi - Mature
274	Single tree	Road Reserve	Titoki	Semi - Mature
275	Single tree	Road Reserve	Norfolk Island Pine	Mature

276	Single tree	Road Reserve	Titoki	Semi - Mature
277	Single tree	Road Reserve	Puriri	Semi - Mature
278	Single tree	Road Reserve	Puriri	Semi - Mature
279	Single tree	Road Reserve	Magnolia	Semi - Mature
280	Single tree	Road Reserve	Magnolia	Semi - Mature
281	Single tree	Road Reserve	Magnolia	Semi - Mature
282	Single tree	Road Reserve	Magnolia	Semi - Mature
283	Single tree	Road Reserve	Magnolia	Semi - Mature
284	Single tree	Road Reserve	Magnolia	Semi - Mature
285	Single tree	Road Reserve	Magnolia	Semi - Mature
286	Single tree	Road Reserve	Magnolia	Semi - Mature
287	Single tree	Road Reserve	Magnolia	Semi - Mature
288	Single tree	Road Reserve	Magnolia	Semi - Mature
289	Single tree	Road Reserve	Magnolia	Semi - Mature
290	Single tree	Road Reserve	Magnolia	Semi - Mature
291	Single tree	Road Reserve	Magnolia	Semi - Mature
292	Single tree	Road Reserve	Magnolia	Semi - Mature
293	Single tree	Road Reserve	Magnolia	Semi - Mature
294	Single tree	Road Reserve	Magnolia	Semi - Mature
295	Single tree	Road Reserve	Washingtonia Palm	Mature
296	Single tree	Road Reserve	Washingtonia Palm	Mature
297	Single tree	Road Reserve	Washingtonia Palm	Mature
298	Single tree	Road Reserve	Washingtonia Palm	Mature
299	Single tree	Road Reserve	Washingtonia Palm	Mature
300	Single tree	Road Reserve	Washingtonia Palm	Mature
301	Single tree	Road Reserve	Washingtonia Palm	Mature
302	Single tree	Road Reserve	Puriri	Semi - Mature
303	Single tree	Road Reserve	Puriri	Semi - Mature
304	Single tree	Road Reserve	Puriri	Semi - Mature
305	Single tree	Road Reserve	Puriri	Semi - Mature
306	Single tree	Road Reserve	Puriri	Semi - Mature
307	Single tree	Road Reserve	Puriri	Semi - Mature
308	Single tree	Road Reserve	Puriri	Semi - Mature
309	Single tree	Road Reserve	Puriri	Semi - Mature
310	Single tree	Road Reserve	Pohutukawa	Semi - Mature

311	Single tree	Road Reserve	Titoki	Semi - Mature
312	Single tree	Road Reserve	Pohutukawa	Semi - Mature
313	Single tree	Road Reserve	Pohutukawa	Semi - Mature
314	Single tree	Road Reserve	Washingtonia Pam	Mature
315	Single tree	Road Reserve	Washingtonia Pam	Mature
316	Single tree	Road Reserve	Washingtonia Pam	Mature
317	Single tree	Road Reserve	Washingtonia Pam	Mature
318	Single tree	Road Reserve	Washingtonia Pam	Mature
319	Single tree	Road Reserve	Washingtonia Pam	Mature
320	Single tree	Road Reserve	Washingtonia Pam	Mature
321	Single tree	Road Reserve	Washingtonia Pam	Mature
322	Single tree	Road Reserve	Washingtonia Pam	Mature
323	Single tree	Road Reserve	Washingtonia Pam	Mature
324	Single tree	Road Reserve	Washingtonia Pam	Mature
325	Single tree	Road Reserve	Washingtonia Pam	Semi - Mature
326	Single tree	Road Reserve	Washingtonia Pam	Mature
327	Single tree	Road Reserve	Titoki	Semi - Mature
328	Single tree	Road Reserve	Titoki	Semi - Mature
329	Single tree	Road Reserve	Pohutukawa	Semi - Mature
330	Single tree	Road Reserve	Magnolia	Semi - Mature
331	Single tree	Road Reserve	Pohutukawa	Semi - Mature
332	Single tree	Road Reserve	Pohutukawa	Semi - Mature
333	Single tree	Road Reserve	Pohutukawa	Semi - Mature
334	Single tree	Road Reserve	Pohutukawa	Semi - Mature
335	Single tree	Road Reserve	Pohutukawa	Semi - Mature
336	Single tree	Road Reserve	Pohutukawa	Semi - Mature
337	Single tree	Road Reserve	Pohutukawa	Semi - Mature
338	Single tree	Road Reserve	Pohutukawa	Semi - Mature
339	Single tree	Road Reserve	Washingtonia Palm	Mature
340	Single tree	Road Reserve	Washingtonia Palm	Mature
341	Single tree	Road Reserve	Washingtonia Palm	Mature
342	Single tree	Road Reserve	Washingtonia Palm	Mature
343	Single tree	Road Reserve	Washingtonia Palm	Mature
344	Single tree	Road Reserve	Washingtonia Palm	Mature
345	Single tree	Road Reserve	Washingtonia Palm	Mature

346	Single tree	Road Reserve	Pohutukawa	Semi - Mature
347	Single tree	Road Reserve	Pohutukawa	Semi - Mature
348	Single tree	Road Reserve	Pohutukawa	Semi - Mature
349	Single tree	Road Reserve	Titoki	Semi - Mature
350	Single tree	Road Reserve	Titoki	Semi - Mature
351	Single tree	Road Reserve	Titoki	Semi - Mature
352	Single tree	Road Reserve	Titoki	Semi - Mature
353	Single tree	Road Reserve	Titoki	Semi - Mature
354	Single tree	Road Reserve	Titoki	Semi - Mature
355	Single tree	Road Reserve	Titoki	Semi - Mature
356	Single tree	Road Reserve	Titoki	Semi - Mature
357	Single tree	Road Reserve	Titoki	Semi - Mature
358	Single tree	Road Reserve	Washingtonia Palm	Mature
359	Single tree	Road Reserve	Titoki	Semi - Mature
360	Single tree	Road Reserve	Titoki	Semi - Mature
361	Single tree	Road Reserve	Titoki	Semi - Mature
362	Single tree	Road Reserve	Titoki	Semi - Mature
363	Single tree	Road Reserve	Titoki	Semi - Mature
364	Single tree	Road Reserve	Titoki	Semi - Mature
365	Single tree	Road Reserve	Titoki	Semi - Mature
366	Single tree	Road Reserve	Titoki	Semi - Mature
367	Single tree	Road Reserve	Titoki	Semi - Mature
368	Single tree	Road Reserve	Titoki	Semi - Mature
369	Single tree	Road Reserve	Titoki	Semi - Mature
370	Single tree	Road Reserve	Pin Oak	Semi - Mature
371	Single tree	Road Reserve	Pin Oak	Semi - Mature
372	Single tree	Road Reserve	Titoki	Semi - Mature
373	Single tree	Road Reserve	Titoki	Semi - Mature
374	Single tree	Road Reserve	Titoki	Semi - Mature
375	Single tree	Road Reserve	Titoki	Semi - Mature
376	Single tree	Road Reserve	Titoki	Semi - Mature
377	Single tree	Road Reserve	Pohutukawa	Semi - Mature
378	Single tree	Road Reserve	Pohutukawa	Semi - Mature
379	Single tree	Road Reserve	Pohutukawa	Semi - Mature
380	Single tree	Road Reserve	Pohutukawa	Semi - Mature



381	Single tree	Road Reserve	Pohutukawa	Semi - Mature
382	Single tree	Road Reserve	Pohutukawa	Semi - Mature
383	Single tree	Road Reserve	Pohutukawa	Semi - Mature
384	Single tree	Road Reserve	Pohutukawa	Semi - Mature
385	Single tree	Road Reserve	Pohutukawa	Semi - Mature
386	Single tree	Road Reserve	Pohutukawa	Semi - Mature
387	Single tree	Road Reserve	Titoki	Semi - Mature
388	Single tree	Road Reserve	Pohutukawa	Semi - Mature
389	Single tree	Road Reserve	Pohutukawa	Semi - Mature
390	Single tree	Road Reserve	Pohutukawa	Semi - Mature
391	Single tree	Road Reserve	Pohutukawa	Semi - Mature
392	Single tree	Road Reserve	Pohutukawa	Semi - Mature
393	Single tree	Road Reserve	Pohutukawa	Semi - Mature
394	Single tree	Road Reserve	Pohutukawa	Semi - Mature
395	Single tree	Road Reserve	Pohutukawa	Semi - Mature
396	Single tree	Road Reserve	Pohutukawa	Semi - Mature
397	Single tree	Road Reserve	Pohutukawa	Semi - Mature
398	Single tree	Road Reserve	Pohutukawa	Semi - Mature
399	Single tree	Road Reserve	Pohutukawa	Semi - Mature
400	Single tree	Road Reserve	Pohutukawa	Semi - Mature
401	Single tree	Road Reserve	Pohutukawa	Semi - Mature
402	Single tree	Road Reserve	Pohutukawa	Semi - Mature
403	Single tree	Road Reserve	Pohutukawa	Semi - Mature
404	Single tree	Road Reserve	Pohutukawa	Semi - Mature
405	Single tree	Road Reserve	Washingtonia Palm	Mature
406	Single tree	Road Reserve	Washingtonia Palm	Mature
407	Single tree	Road Reserve	Washingtonia Palm	Mature
408	Single tree	Road Reserve	Washingtonia Palm	Mature
409	Single tree	Road Reserve	Washingtonia Palm	Mature
410	Single tree	Road Reserve	Washingtonia Palm	Mature
411	Single tree	Road Reserve	Washingtonia Palm	Mature
412	Single tree	Road Reserve	Washingtonia Palm	Mature
413	Single tree	Road Reserve	Washingtonia Palm	Mature
414	Single tree	Road Reserve	Washingtonia Palm	Mature
415	Single tree	Road Reserve	Washingtonia Palm	Mature

416	Single tree	Road Reserve	Washingtonia Palm	Mature
417	Single tree	Road Reserve	Washingtonia Palm	Mature
418	Single tree	Road Reserve	Washingtonia Palm	Mature
419	Single tree	Road Reserve	Washingtonia Palm	Mature
420	Single tree	Road Reserve	Washingtonia Palm	Mature
421	Single tree	Road Reserve	Washingtonia Palm	Mature
422	Single tree	Road Reserve	Washingtonia Palm	Mature
423	Single tree	Road Reserve	Washingtonia Palm	Mature
424	Single tree	Road Reserve	Washingtonia Palm	Mature
425	Single tree	Road Reserve	Washingtonia Palm	Mature
1122	Single tree	Open Space	Gum	Mature
1123	Single tree	Open Space	Gum	Mature
1124	Group of Trees	Open Space	Gum	Mature
1125	Group of Trees	Open Space	Gum	Mature
1126	Single tree	Private	Cedar	Mature
1127	Single tree	Private	Titoki	Mature
1128	Single tree	Private	Totara	Semi - Mature
1128	Group of Trees	Private	Pohutukawa	Semi - Mature
1129	Single tree	Private	Cypress	Mature
1130	Single tree	Private	Cedar	Mature
1131	Single tree	Private	Pepper Tree	Mature
1132	Group of Trees	Private	Gum	Mature
1133	Group of Trees	Private	Gum	Mature
1134	Single tree	Open Space	Gum	Semi - Mature
1135	Group of Trees	Open Space	Magnolia	Semi - Mature
1143	Group of Trees	Private	Mixed Native, Puriri	Mature
1143	Group of Trees	Private	Mixed Native, Puriri	Mature
1145	Group of Trees	Private	Mixed Natives	Mature
1146	Group of Trees	Private	Mixed Natives	Mature
1146	Group of Trees	Private	Mixed Natives	Mature
1146	Group of Trees	Private	Mixed Natives	Mature
1149	Group of Trees	Open Space	Mixed Natives, Redwood, Norfolk Pine	Mature
1151	Group of Trees	Private	Mixed Natives, Redwood, Norfolk Pine	Mature

1153	Group of Trees	Private	Mixed Natives, Norfolk Island Pine, Oak	Mature
1155	Group of Trees	Open Space	Manuka, mixed natives	Mature
1204	Single tree	Road Reserve	Broadleaf	Mature

**NoR 3**



LEGEND  
Designation Boundary    Tree/Group of Trees    NoR\_Boundary    NoR 2    0 20 40  
Meters



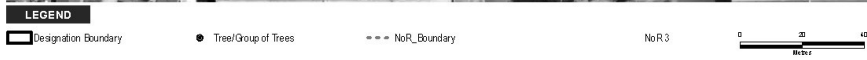
LEGEND  
Designation Boundary    Tree/Group of Trees    NoR\_Boundary    NoR 3    0 20 40  
Meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR3    0 40 80 meters



**LEGEND**  
 ■ Designation Boundary    ● Tree/Group of Trees    - - - NoR\_Boundary    NoR3    0 40 80 meters





**LEGEND**

▭ Designation Boundary      ● Tree/Group of Trees      - - - NoR\_Boundary      NoR3      0 20 40  
meters

Tree No.	Vegetation Type	Protection	Species	Age
1	Single tree	Notable	Gum	
11	Single tree	Road Reserve	Pohutukawa	Semi - Mature
12	Single tree	Road Reserve	Pohutukawa	Semi - Mature
13	Single tree	Road Reserve	Pohutukawa	Semi - Mature
14	Single tree	Road Reserve	Ficus	Semi - Mature
15	Single tree	Road Reserve	Jacaranda	Semi - Mature
16	Single tree	Road Reserve	Jacaranda	Semi - Mature
17	Single tree	Road Reserve	Pohutukawa	Semi - Mature
18	Single tree	Road Reserve	Pohutukawa	Semi - Mature
19	Single tree	Road Reserve	Pohutukawa	Semi - Mature
20	Single tree	Road Reserve	Pohutukawa	Semi - Mature
21	Single tree	Road Reserve	Pohutukawa	Semi - Mature
22	Group of Trees	Notable	Group of Notable Trees – Magnolia requiring removal	Mature
23	Single tree	Road Reserve	Pohutukawa	Semi - Mature
24	Single tree	Road Reserve	Pohutukawa	Semi - Mature
25	Single tree	Road Reserve	Pohutukawa	Semi - Mature
26	Single tree	Road Reserve	Pohutukawa	Semi - Mature
27	Single tree	Road Reserve	Pohutukawa	Semi - Mature
28	Single tree	Road Reserve	Pohutukawa	Semi - Mature
29	Single tree	Road Reserve	Pohutukawa	Semi - Mature
30	Single tree	Road Reserve	Pohutukawa	Semi - Mature
32	Group of Trees	Road Reserve	Mixed Group (Kauri, Totara, Privet)	Semi - Mature
1205	Group of Trees	Open Space	London Plane x 12	Mature
1206	Group of Trees	Open Space	Pine / Eucalyptus x25	Mature
1207	Group of Trees	Open Space	Pine x 30	Mature