Waitākere Ranges Local Board Workshop Record

Workshop record of the Waitākere Ranges Local Board held at the Waitākere Ranges Local Board office, 39 Glenmall Place, Glen Eden, Auckland on Thursday, 16 February 2023, commencing at 9.30am

PRESENT

Chairperson:	Greg Presland
Members:	Michelle Clayton Mark Allen Sandra Coney Linda Potauaine Liz Manley
Apologies:	
Also present:	Adam Milina, Darshita Shah, Brett Lane, Natasha Yapp and Nataly Anchicoque

Workshop Item	Summary of Discussions
Accessible Park Maps Thomas Dixon, Parks and Places Specialist 9.30am – 10.05am	Board members updated on the assessment of accessible park maps in the Wāitakere Ranges local board area.
Regional Parks Sustainable Public Transport (RPSPT) project briefing Pippa Sommerville, Principal Parks Advisor Minoo Esfehani, Parks Project Specialist 10.30am – 11.15am	Board members informed on an initiative to improve public transport to regional parks.
Kakamatua Inlet Carpark Consent (LUC60409706) Ravi Chandrappa, Senior Project Manager Graham Hooper, Principal Planner 11.30am – 12.15pm	Board members updated on Kakamatua Inlet Carpark Consent design.

Local Board Capital Transport Fund Brett Lane, Senior Local Board Advisor 1.00pm – 1.30pm	Staff led discussion on the list of candidate projects to help the Board resolve the allocation of funds of the Local Board Capital Transport Fund.
Food Scraps Service Roll-out Hana Perry, Relationship Advisor Sarah Nicholls, Senior Programme Manager Elise O'Brien, Senior Waste Specialist 1.30pm – 2.15pm	Board members updated on the food scraps service rollout in the Wāitakere Ranges local board area.
Katoa, Ka Ora (A Speed Management Plan for Tamaki Makaurau) Confidential Item Ping Sim, Techincal Safety Expert Dayal Pituwala Withana, Road Safety Engineering Team Rochelle Pethybridge, Strategic Engagement Lead 2.15pm – 3.15pm	Board members informed on the outcome of the December Katoa, Ka Ora Conversations - Speed Limit Settings near Schools.

The workshop concluded at 3.15pm.

WAITĀKERE RANGES LOCAL BOARD

Accessible Parks Maps

Feb 2023

Thomas Dixon, Parks & Places Specialist

Thursday 16 February 2023

Purpose of Workshop

- To present the draft maps for the Parks Accessible Mapping Project for FY22-23

- To provide a brief update on the Parks FY23-24 Work Programme

Accessibility in Parks

- Auckland Council has a responsibility to provide public open spaces which are inclusive and welcoming to everyone, regardless of age or ability

- One out of every Five people in Auckland:
  - Has difficulty reading small print or is blind
  - Uses a wheelchair or is unable to walk easily
  - Has trouble hearing in noisy places or is deaf
  - Is from a different country using a different language
  - Is out and about with family or young children
  - Finds it difficult to read and understand things unless provided in plain English

- An aging population means this number will grow. By 2050 it is estimated that 25% of residents will be over 65, and 50 per cent will have access needs.

Accessibility Audits

- In FY22, the Waitākere Ranges Local Board funded an investigation into the accessibility of local parks. Experts from Be.Lab undertook assessments to identify and prioritise assets or features that require upgrading to improve access.

- The ten local parks selected for audit were:
  - Parrs Park
  - Harold Moody Reserve & Duck Park
  - Ceramco Park & Kaurilands Domain
  - Armour Bay & Takaranga Reserves
  - Titirangi Beach Reserve
  - Prospect Park
  - Swanson Station Park

- One key area of improvement identified was around “planning a visit to the park”

Planning a visit to the park

- Planning involves the provision of information to enable an access citizen to plan their visit to a park, and so that they know what to expect when they arrive. This includes:

- **Website Information** - to inform visitors what they might expect when they visit.
- **Website Accessibility** - Information should be provided in a clear inclusive manner.
- **Maps** – maps should be provided both online and on-site which outline accessibility.

- Auckland Council currently does not do this very well through park pages on the website.

Access Information and Maps

- One high priority recommendation from the report was for improved accessible information to be provided on the Council website – using text, images and maps.

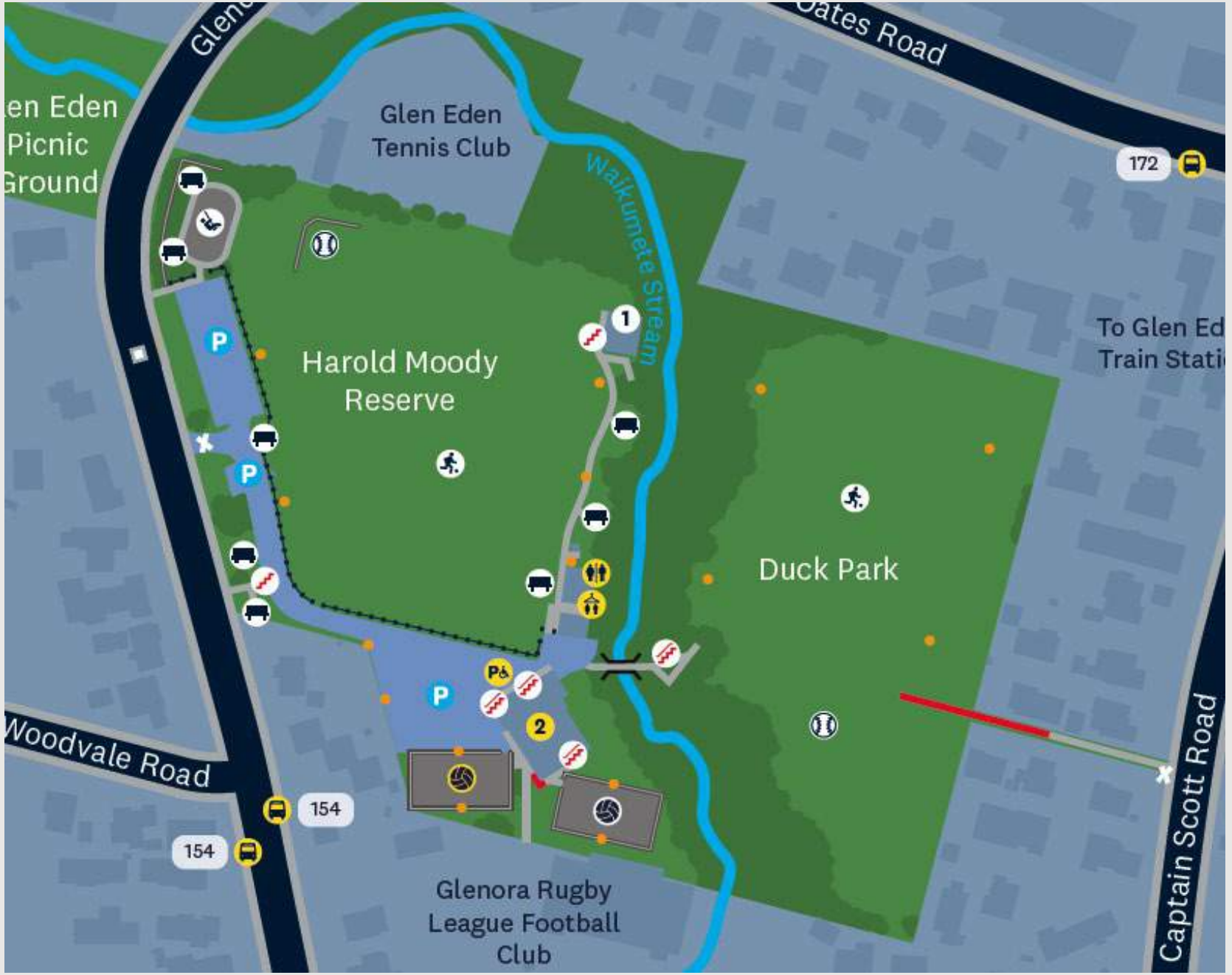
- Having this information will enable the access citizen to plan their visit to a park, and to know what to expect when they arrive.
- It will also increase awareness for all website users of the assets, lease holders and opportunities to engage with these important local parks.

- The maps will be uploaded to the ‘Find a Park’ pages of the Auckland Council website, which will also be updated as part of the project.

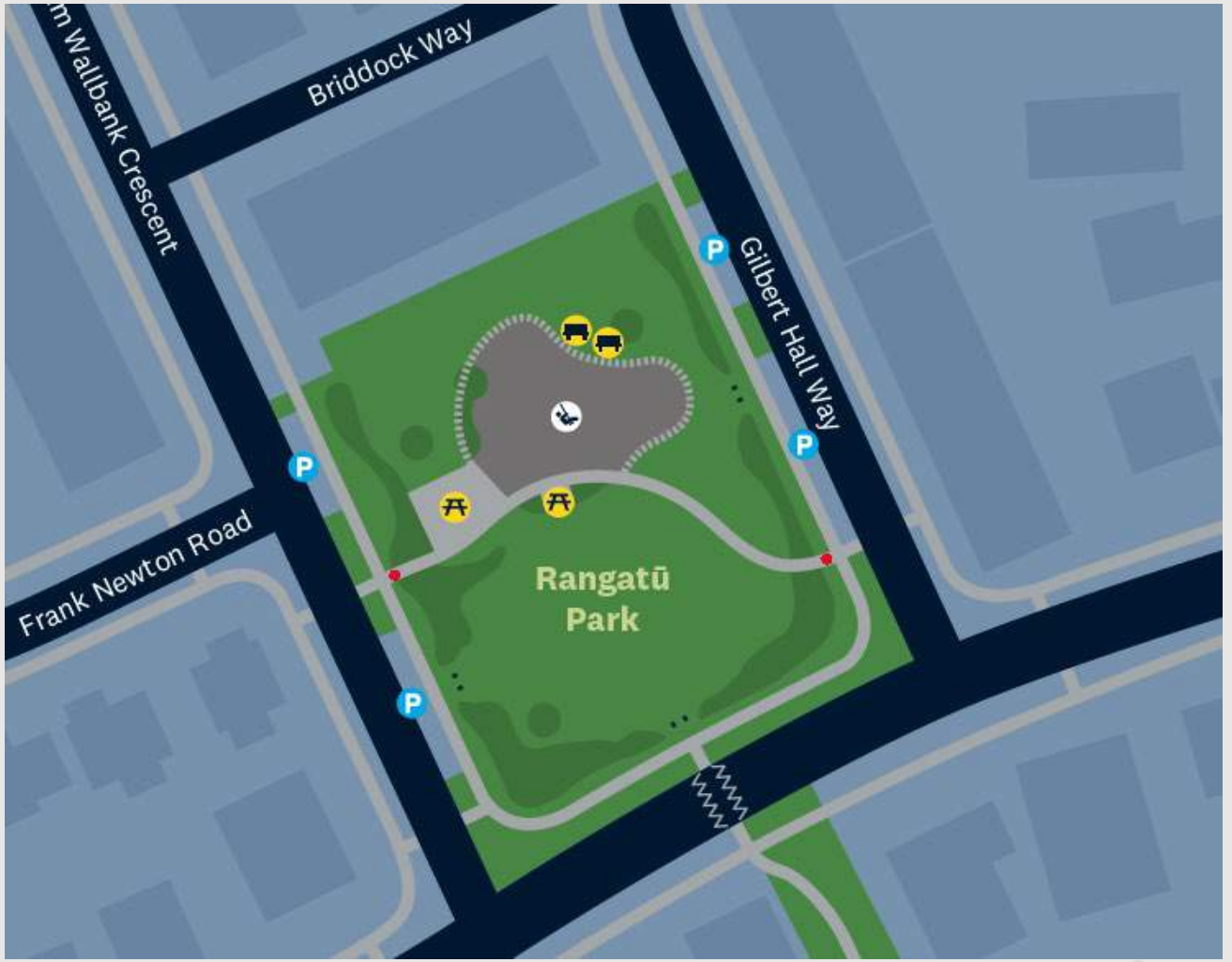
Pae tohu / Legend

Park land	Lighting	Playground
Bush area / trees	Fence	Skate park
Internal road / parking	Bollards	Sports field
Buildings	Bollard and chain or post and rail fence	Basketball half court
Accessible route	Pedestrian crossing	Fitness equipment
Accessible path	Pedestrian refuge	Cricket training nets
Steep path >1:12	Accessible toilets	Trees for babies
Accessible track	Bus stop / route	Dog off-leash area
Stairs with handrail	Accessible parking	1 Oratia United Football Club
Obstacle in path	Parking	2 Waterhole Swimming Centre
Step or retaining wall (no barrier)	Picnic table	3 Waitematā Table Tennis Stadium
Bridge	Seat	Gates closed 9pm - 7am
Boardwalk bridge (no handrail)	Drinking fountain	


N
154
154
Glendale Road
Inver Road
Terra Nova Street
Glengarry Road
172
172
Captain Scott Road
P
154
1
2
P
Ōkaurirahi /
Ceramco Park
Scotstoun Place
172
172
151
151
Meadowvale Rise
Glen Eden
Intermediate
School
3
Ōkaurirahi /
Kaurilands Domain
P
151
172


Glen Eden Tennis Club
Walkumete Stream
172
Harold Moody Reserve
1
P
P
P
Duck Park
2
Woodvale Road
154
154
Glenora Rugby League Football Club
Captain Scott Road


N
Waitakere Ranges Regional Park
Titirangi Beach Road
Waitakere Ranges Regional Park
Mahoe Road
Paturoa Road
Aydon Road
Paturoa Stream
Titirangi Beach
Paturoa Road


Briddock Way
Wallbank Crescent
Gilbert Hall Way
Frank Newton Road
Rangatū Park

Next Steps

Final changes to maps based off feedback

March 2023

Park website content produced

April 2023

Content uploaded to website

May 2023

Accessible Design within Parks in the Waitākere Ranges

Parks Sport and Recreation

May 2022

aucklandcouncil.govt.nz

Introduction

Parks are fundamental spaces for every neighbourhood, providing a focus for social, cultural and recreational activities, and improving the mental and physical health and resilience of communities.

Auckland Council has a responsibility to provide facilities and public open spaces which are inclusive and welcoming to everyone, regardless of their age or ability, including those with specific access needs.

One in five people in Auckland currently have difficulty accessing parks unless they have been designed for the 'access citizen'. An access citizen is defined by accessibility consultants Be Lab as someone who:

- has difficulty reading small print or is blind
- uses a wheelchair or is unable to walk easily
- has trouble hearing in noisy places or is deaf
- is from a different country using a different language
- is out and about with family or young children
- finds it difficult to read and understand things unless provided in plain English.

The number of people in Auckland who are access citizens is expected to grow as the population continues to age. Stats NZ reported in 2018 that 10.4 per cent of Waitākere Ranges residents were currently over 65 years old. By 2050 it is estimated that 25 per cent of residents will be over 65, and 50 per cent of them will have access needs.

Universal design, also referred to as 'accessibility for all', means that everyone receives the same experience regardless of age, culture or ability. Universal design goes beyond minimum standards of compliance to ensure a level of quality is achieved that is suitable for a wider spectrum of the population.

In the context of parks, universal design promotes safe, accessible, barrier-free play and recreation opportunities for people of all ages and abilities. Many universal design outcomes are already included in the Auckland Design Manual, which is used to guide development within Auckland.

An Accessible Parks Experience

For a member of the access needs community, the experience of visiting a park can be split into three stages, planning your visit, entering the park, and enjoying the park.

At each stage, there are key considerations that Auckland Council can seek to implement or improve that will enable an improved parks experience for citizen's with access needs.

These considerations are detailed below:

Planning a visit to the park

Planning involves the provision of information to enable an access citizen to plan their visit to a park, and so that they know what to expect when they arrive. For a trip to be enjoyable, information is required ahead of time about access, public transportation, accessible carparking, layout of space, activities available, and accessible facilities such as toilets or playspaces.

This includes:

- Website Information - describing public transport options and travel considerations, the features of interest, amenities and level of accessibility within a park to inform visitors what they might expect when planning their visit.
- Website Accessibility - Information should be provided in a clear manner, with consideration for alternative language needs, including sign language.
- Maps – maps should be provided both for download online and hosted on-site which clearly outlines accessible routes, toilet facilities and other amenities.

Arriving and getting into the park

Arriving is the experience of travelling to a park and being able to safely navigate from the carpark or park entrance into the park itself. The expected means of travel can be determined by whether a park is primarily designed for the local community (e.g. Neighbourhood Parks) or is a destination for wider communities (e.g. Suburb or Destination Parks).

This includes:

- Access Options - Access to the site in most cases should be available via public transport or walking and cycling routes, clearly identified on council and AT websites. Safe and accessible pedestrian access means appropriate road crossings, traffic calming, good sight lines, and formalised level access.
- Accessible Car Parking – accessible carpark marking and drop off zones should be provided as per the design standards outlined in NZS 4121:2001, including high quality and accessible park signage and wayfinding guidance to accessible car parking locations.

- Carparking - Provision of dedicated on-site carpark as opposed to on-street parking is important for those with access needs. Where this is not possible, indented parking which includes accessible parks will reduce conflict between pedestrians and other road users. Avoid pedestrians needing to cross the flow of traffic within a carpark.
- Bollards / Barriers – Safe, level and barrier free transition should be provided for transition from the carpark to park footpaths, with any hazards such as bollards clearly marked.

Enjoying the park

Enjoying is the experience of park users while within the park itself. Parks should be designed following principles of Universal Design, including both the landscaping and assets in the park.

This includes:

- Wayfinding – signage should be of a high quality, including maps and directional information to key facilities such as the location of toilets, playgrounds, sports fields, and park entrance/exits. An accessible route through the park should be indicated, including information on path types and walking options.
- Accesible Route – an accessible route should connect key features and facilities within the park, e.g. car park, toilets, playspace, recreational facilities, BBQ areas, lookouts.
- Surfaces - Footpaths should allow access for all users to key facilities within the park, with slip resistant surfaces favoured over gravel and dirt walking surfaces where appropriate. Tactile ground indicators should be installed where necessary to inform users of changes or hazards in the environment, and all walkways should be flush with the surrounding grass. A minimum clear width on pedestrian routes is 1200mm, however 1800mm is recommended along accessible routes.
- Playgrounds - should be accessible to all, with accessible edging and slip-resistant soft fall surfaces that are suitable for children and family members using mobility equipment. Provision of different play experiences suitable for different age groups to ensure rich provision of play.
- Accessible Toilets - Accessible all-gender toilet facilities should be provided in large parks, with clear directional signage to inform visitors where accessible toilet facilities are located.
- CPTED – principles of crime prevention through environmental design should be considered during park development and maintenance to ensure good all-round visibility and sightlines. Consideration should also be given to layout, vandalism, maintenance, police patrols and lighting where appropriate.
- Accessible Seating – provide seating at key areas within the park where people may want to sit, and along accessible routes. Access, back and arm support, allowance for wheelchairs, and seat orientation should all be considered.

Armour Bay Reserve

2 Armour Road, Parau

Accessible information: The Waitākere Ranges Local Board are working towards improving accessibility in Armour Bay Reserve. All park features on the map which are yellow are considered accessible.

Pae tohu / Legend

- Park land
- Bush area / trees
- Mangroves
- Beach
- Internal park road / parking
- Buildings
- Accessible path
- Steep path >1:12
- Accessible track (gravel)
- Steep track >1:12
- Stairs
- Stairs with handrail
- Bridge
- Fence
- Bollards
- Bollard and chain or post and rail fence
- Toilets / changing rooms
- Parking
- Seat
- Picnic table
- Playground
- Barbecue
- Beach shower
- Drinking fountain
- Accessible boat ramp
- Basketball court
- Tennis courts
- Netball courts
- Swimming beach
- Trees for babies
- Dog off-leash area
- Gates closed
  9pm - 7am (Summer)
  7pm - 7am (Winter)

WAITĀKERE RANGES LOCAL BOARD

Armour Bay Reserve

Duck Park

23 Captain Scott Road, Glen Eden

Accessible information: The Waitākere Ranges Local Board are working towards improving accessibility in Duck Park. All park features on the map which are yellow are considered accessible.

Pae tohu / Legend

- Park land
- Bush area / trees
- Internal park road / parking
- Buildings
- Accessible path
- Steep path >1:12
- Path in adjacent park
- Stairs
- Stairs with handrail
- Bridge
- Lighting
- Fence
- Bollards
- Bollard and chain fence
- Pedestrian crossing
- Pedestrian refuge island
- Accessible toilets / changing rooms
- Bus stop / bus route
- Accessible parking
- Parking
- Seat
- Playground
- Sports fields
- Softball field
- Netball courts
- 1 Glenora Eagles Softball Club
- 2 Glen Eden Community and Recreation Centre War Memorial Hall
- Gates closed 9pm - 7am

Duck Park


N
Glen Eden Library
Glendale Road
Oates Road
Glen Eden Town Centre
Glen Eden Picnic Ground
Glen Eden Tennis Club
Waikumete Stream
172
To Glen Eden Train Station
Harold Moody Reserve
1
Duck Park
2
Woodvale Road
154
154
Glenora Rugby League Football Club
Captain Scott Road
Hibernia Stream Esplanade
154
172
Savoy Road
SCALE
0
30m
Levy Road

Harold Moody Reserve

44 Glendale Road, Glen Eden

Accessible information: The Waitākere Ranges Local Board are working towards improving accessibility in Harold Moody Reserve. All park features on the map which are yellow are considered accessible.

Pae tohu / Legend

- Park land
- Bush area / trees
- Internal park road / parking
- Buildings
- Accessible path
- Steep path >1:12
- Path in adjacent park
- Stairs
- Stairs with handrail
- Bridge
- Lighting
- Fence
- Bollards
- Bollard and chain fence
- Pedestrian crossing
- Pedestrian refuge island
- Accessible toilets / changing rooms
- Bus stop / bus route
- Accessible parking
- Parking
- Seat
- Playground
- Sports fields
- Softball field
- Netball courts
- 1 Glenora Eagles Softball Club
- 2 Glen Eden Community and Recreation Centre War Memorial Hall
- Gates closed 9pm - 7am

WAITĀKERE RANGES LOCAL BOARD

Harold Moody Reserve

Ōkaurirahi / Ceramco Park

112 - 122 Glendale Road, Glen Eden

Accessible information: The Waitākere Ranges Local Board are working to improve accessibility in Ōkaurirahi / Ceramco Park. All park features on the map which are yellow are considered accessible.

Pae tohu / Legend

- Park land
- Bush area / trees
- Internal road / parking
- Buildings
- No general public access to leased area
- Twin Streams Walk and Cycleway
- Accessible path
- Steep path >1:12
- Accessible track (gravel)
- Stairs
- Stairs with handrail
- Obstacle in path
- Bridge
- Boardwalk bridge (no handrail)
- Lighting
- Fence
- Bollards
- Bollard and chain or post and rail fence
- Pedestrian crossing
- Pedestrian refuge
- Accessible toilets
- Bus stop / route
- Accessible parking
- Parking
- Accessible picnic table
- Picnic table
- Accessible seat
- Seat
- Playground
- Accessible skate park
- Sports field
- Atheletics field
- Drinking fountain
- 1 Glen Eden Scout Group
- 2 Ceramco Park Function Centre
- 3 Kaurilands Kindergarten
- Gates closed 9pm - 7am

WAITĀKERE RANGES LOCAL BOARD

Ōkaurirahi / Ceramco Park

Ōkaurirahi / Kaurilands Domain

57 - 67 Atkinson Road, Titirangi

Accessible information: The Waitākere Ranges Local Board are working to improve accessibility in Ōkaurirahi / Kaurilands Domain. All park features on the map which are yellow are considered accessible.

Pae tohu / Legend

- Park land
- Bush area / trees
- Internal road / parking
- Buildings
- No general public access to leased area
- Twin Streams Walk and Cycleway
- Accessible path
- Steep path >1:12
- Accessible track (gravel)
- Stairs
- Stairs with handrail
- Obstacle in path
- Bridge
- Boardwalk bridge (no handrail)
- Lighting
- Fence
- Bollards
- Bollard and chain or post and rail fence
- Pedestrian crossing
- Pedestrian refuge
- Accessible toilets
- Bus stop / route
- Accessible parking
- Parking
- Accessible picnic table
- Picnic table
- Accessible seat
- Seat
- Playground
- Accessible skate park
- Sports field
- Atheletics field
- Drinking fountain
- 1 Glen Eden Scout Group
- 2 Ceramco Park Function Centre
- 3 Kaurilands Kindergarten
- Gates closed 9pm - 7am

WAITĀKERE RANGES LOCAL BOARD

Ōkaurirahi / Kaurilands Domain

Parrs Park

471 - 479 West Coast Road, Glen Eden

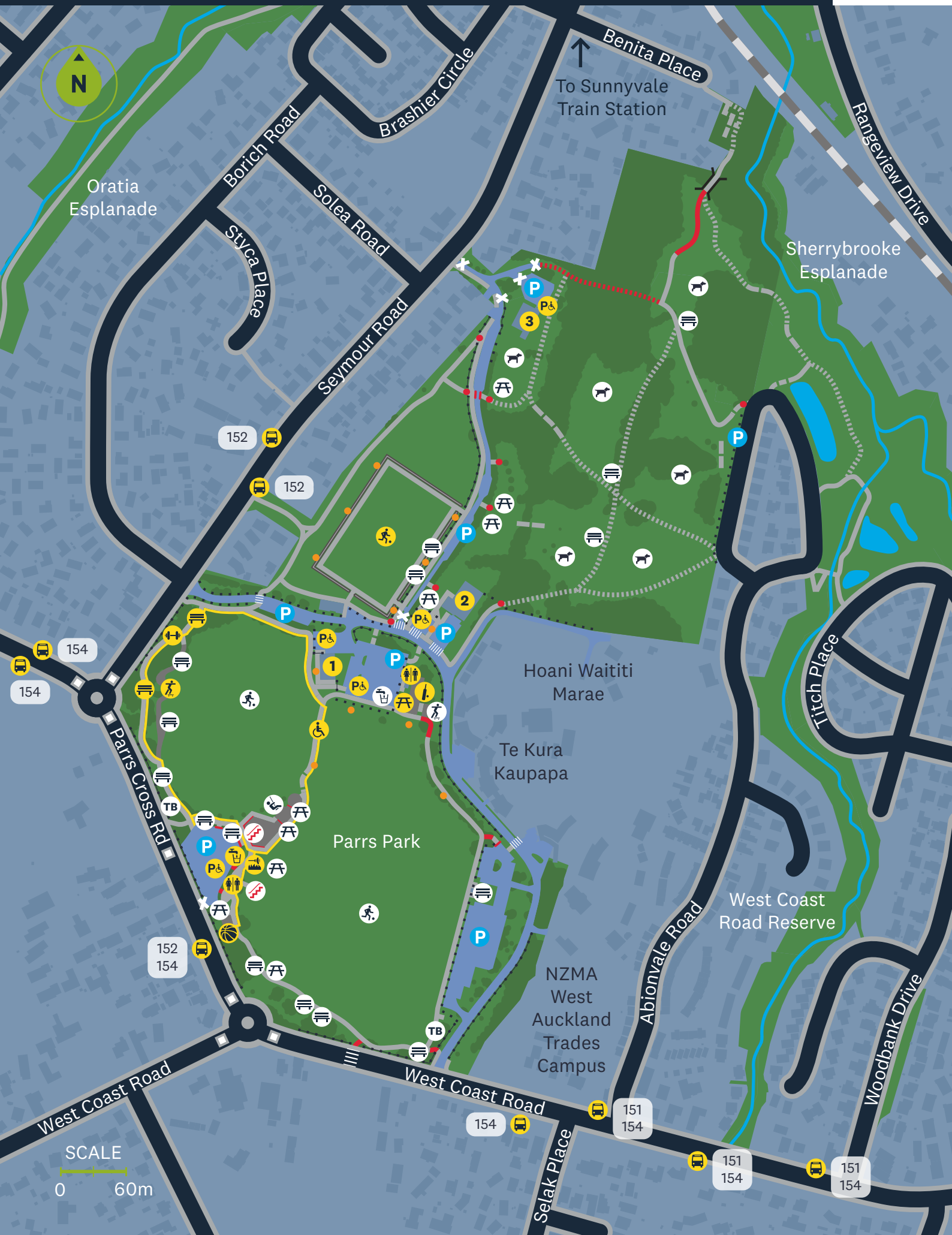
Accessible information: The Waitākere Ranges Local Board are working towards improving accessibility in Parrs Park. All park features on the map which are yellow are considered accessible.

Pae tohu / Legend

- Park land
- Bush area / trees
- Internal road / parking
- Buildings
- Accessible route
- Accessible path
- Steep path >1:12
- Accessible track
- Stairs with handrail
- Obstacle in path
- Step or retaining wall (no barrier)
- Bridge
- Boardwalk bridge (no handrail)
- Lighting
- Fence
- Bollards
- Bollard and chain or post and rail fence
- Pedestrian crossing
- Pedestrian refuge
- Accessible toilets
- Bus stop / route
- Accessible parking
- Parking
- Picnic table
- Seat
- Drinking fountain
- Playground
- Skate park
- Sports field
- Basketball half court
- Fitness equipment
- Cricket training nets
- Trees for babies
- Dog off-leash area
- 1 Oratia United Football Club
- 2 Waterhole Swimming Centre
- 3 Waitematā Table Tennis Stadium
- Gates closed 9pm - 7am

WAITĀKERE RANGES LOCAL BOARD

Parrs Park


N
Oratia Esplanade
Borich Road
Brashier Circle
Styca Place
Solea Road
Seymour Road
Benita Place
To Sunnyvale Train Station
Rangeview Drive
Sherrybrooke Esplanade
152
152
154
154
Parrs Cross Rd
Hoani Waititi Marae
Te Kura Kaupapa
Titch Place
Parrs Park
West Coast Road Reserve
152
154
NZMA West Auckland Trades Campus
Abionvale Road
West Coast Road
West Coast Road
154
151
154
151
154
151
154
Woodbank Drive
Selak Place
SCALE
0
60m

Prospect Park

13 Pisces Road, Glen Eden

Accessible information: The Waitākere Ranges Local Board are working towards improving accessibility in Prospect Park. All park features on the map which are yellow are considered accessible.

Pae tohu / Legend

- Park land
- Bush area / trees
- Internal park road / parking
- Buildings
- Accessible path
- Steep path >1:12
- Boardwalk bridge (no handrail)
- Obstacle in path
- Pedestrian refuge island
- Lighting
- Accessible parking
- Parking
- Picnic table
- Seat
- Drinking fountain
- Barbecue
- Playground
- Pump track
- Accessible basketball half court
- Trees for babies
- Glen Eden Community House
- Gates closed 9pm to 7am

WAITĀKERE RANGES LOCAL BOARD

Prospect Park

Rangatū Park

41 Mettam Drive Swanson

Accessible information: The Waitākere Ranges Local Board are working towards improving accessibility in Rangatū Park. All park features on the map which are yellow are considered accessible.

Pae tohu / Legend

- Park land
- Bush area / trees
- Internal park road / parking
- Buildings
- Accessible path
- Accessible track (fine gravel mix)
- Bollards
- Bollard / obstacle in path
- Raised pedestrian refuge crossing
- Parking
- Accessible picnic table
- Accessible seat
- Playground

WAITĀKERE RANGES LOCAL BOARD

Rangatū Park

Swanson Station Park

760 Swanson Road, Swanson

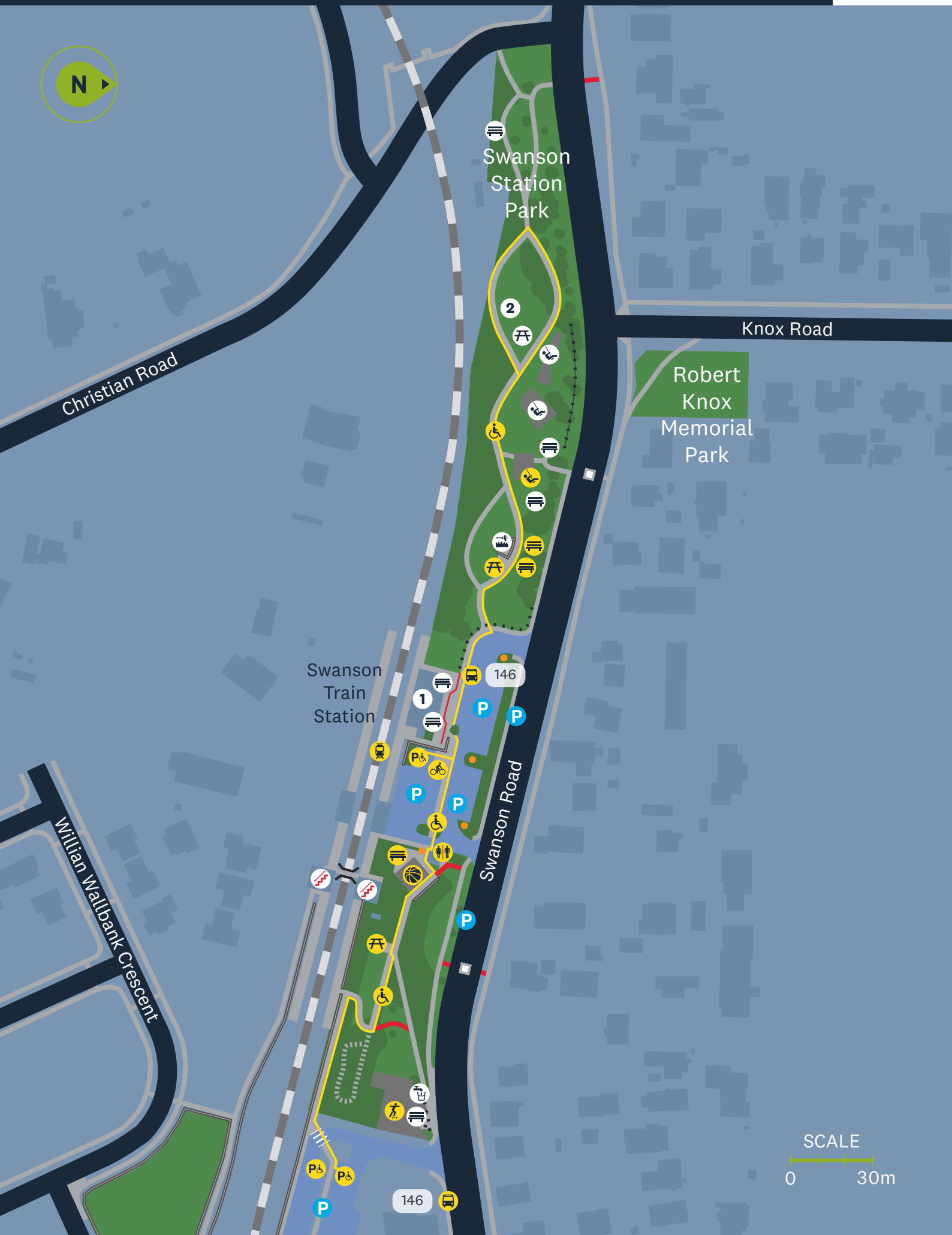
Accessible information: The Waitākere Ranges Local Board are working towards improving accessibility in Swanson Station Park. All park features on the map which are yellow are considered accessible.

Pae tohu / Legend

- Park land
- Bush area / trees
- Mangroves
- Internal park road / parking
- Buildings
- Accessible route
- Accessible path
- Steep path >1:12
- Accessible track
- Step (no barrier)
- Bridge
- Lighting
- Fence
- Bollards
- Bollard and chain fence
- Pedestrian crossing
- Pedestrian refuge
- Accessible toilets
- Bus stop / route
- Train station
- Train line
- Accessible parking
- Parking
- Accessible seat
- Seat
- Accessible picnic table
- Picnic table
- Accessible playground
- Playground
- Accessible skate ramps
- Barbecue
- Drinking fountain
- Accessible bicycle stands
- Accessible basketball half court
- 1 Swanson Station Cafe
- 2 Historic rail overbridge foundations

WAITĀKERE RANGES LOCAL BOARD

Swanson Station Park



Takaranga Reserve

15 Staley Road, Parau

Accessible information: The Waitākere Ranges Local Board are working towards improving accessibility in Takaranga Reserve. All park features on the map which are yellow are considered accessible.

Pae tohu / Legend

- Park land
- Bush area / trees
- Mangroves
- Beach
- Internal park road / parking
- Buildings
- Accessible path
- Steep path >1:12
- Accessible track (gravel)
- Steep track >1:12
- Stairs
- Stairs with handrail
- Bridge
- Fence
- Bollards
- Bollard and chain or post and rail fence
- Toilets / changing rooms
- Parking
- Seat
- Picnic table
- Playground
- Barbecue
- Beach shower
- Drinking fountain
- Accessible boat ramp
- Basketball court
- Tennis courts
- Netball courts
- Swimming beach
- Trees for babies
- Dog off-leash area
- Gates closed
  9pm - 7am (Summer)
  7pm - 7am (Winter)

WAITĀKERE RANGES LOCAL BOARD

Takaranga Reserve

Titirangi Beach Reserve

104 - 108 Park Road, Titirangi

Accessible information: The Waitākere Ranges Local Board are working towards improving accessibility in Titirangi Beach Reserve. All park features on the map which are yellow are considered accessible.

Pae tohu / Legend

- Park land
- Bush area / trees
- Beach
- Internal park road / parking
- Buildings
- Accessible route
- Zig-zag Track
- Accessible path
- Steep path >1:12
- Accessible track or access road (gravel)
- Stairs with handrail
- Retaining wall (no barrier)
- Bridge
- Boardwalk bridge (no handrail)
- Fence
- Bollards
- Bollard and chain fence
- Lighting
- Accessible toilets
- Parking
- Drop-off zone
- Accessible seat
- Seat
- Accessible picnic table
- Picnic table
- Playground
- Swimming beach
- Titirangi Beach Hall
- Maintenance access gate

WAITĀKERE RANGES LOCAL BOARD

Titirangi Beach Reserve

Regional Parks Sustainable Public Transport initiative

Waitākere Ranges Local Board workshop

Minoo Esfehani, Parks Project Specialist,

February 2023

The Regional Parks Management Plan action was supported by the Parks Arts Community Events (PACE) Committee in 2022 for progression. Staff are looking to engage communities to understand their needs and gather support for the project

Important point

Staff are not seeking local board funding for this initiative. Funding options including partnerships, sponsorship etc. will be considered following community engagement.

The purpose of this workshop is to

- to inform board members about the project and update on it’s progress
- seek feedback on the community engagement stage

Project Objectives

- Assess how accessible Regional Parks are for the wider community with a special focus on Communities of Greatest Need (CoGN)

- Provide low emissions, sustainable public transport options for Aucklanders that reduce our carbon footprint and make Regional Parks more accessible.

Strategic alignment

Regional Parks Management Plan 2022

The project aligns with core objectives in the Regional Parks Management Plan (2022):

a) reducing emissions relating to park user travel and improving equity of access to regional parks (p.84)

b) improving the inclusive use and enjoyment of parks by all

people regardless of abilities, gender or ethnicity (p.112)

- Te Tāruke ā Tāwhiri – Auckland Climate Change Plan
- Transport Emission Reduction Plan (TERP)
- Parks and Open Spaces Action Plan (2014)

Project staging

Phase one (completed) - exploratory work to assess the feasibility of the project including:

- Desktop research and on-site assessment on the trial parks
- Council and Auckland Transport (AT) collaboration (initial phase)
- Community engagement (initial phase)
- PACE Workshop in August 2022
- Mana whenua forum presentation and discussion

Phase two (underway) - this phase focuses on community engagement - targeting local groups, understanding their needs and expectations in more details.

Community Engagement

First Step: Following feedback from Draft Regional Parks Management Plan, some high level engagement was done in 2022.

Next Step : Four local board areas have been identified for further and more targeted engagement in 2023, focusing on CoGN.

Local board areas

- Henderson-Massey
- Māngere-Ōtāhuhu
- Waitākere Ranges
- Ōtara-Papatoetoe

Why?

a) the level of socio-economic deprivation (most of them score 6> out of 10 on the New Zealand Index of Deprivation*)

b) the local board areas are near to two of the project's (potential) destination parks - Ambury Regional Park and Waitakere Regional Park

*https://massey.maps.arcgis.com/apps/Embed/index.html? webmap=449633d9f5b74954ab44973c6b046d04&extent=161.0794,-47.7278,180,-34.0748&zoom=true&scale =true&search=true&searchextent=true&details=true&legend=true&active_panel=legend&disable_scroll=true&t heme=light

Engagement approach

Staff aim to engage targeted groups to understand their needs and interests for using public transport to access Regional Parks.

- What factors would need to be considered for the community to use public transport to access Regional Parks (i.e. cost, route, flexibility etc.)?

- What type of natural environments (e.g bush, beach, farms) and activities the community would like to experience?

- Where are key local locations for the start and end point for buses or shuttles to Regional Parks?

Next Steps

Following the workshop staff will:

- consider the elected members' feedback to start community engagement
- explore partnership option with AT, private sectors and etc.
- explore funding options

He pātai?

Memorandum

16/02/2023

To: Waitākere Ranges Local Board

Subject: Regional Parks Sustainable Public Transport initiative

From: Minoo Esfehani, Parks Project Specialist

Contact information: Minoo.esfehani@aucklandcouncil.govt.nz

Purpose

1. To inform and update the board members about the project and seek feedback on the community engagement stage.

Summary

2. The Regional Parks Management Plan highlights the importance of climate change responsiveness, public transport and equity of access.
3. The Regional Parks Sustainable Public Transport project was initiated in March 2022 to assess feasibility and explore potential models for improving public transport to regional parks.
4. Providing access for Communities of Greatest Need (CoGN) and reducing carbon emissions are the project's main objectives.
5. Phase one of the project (completed) involved assessing the feasibility of the project for some targeted Regional Parks.
6. Phase two focuses on community engagement - using a targeted approach to working with groups, understanding their needs and expectations in more detail. Four local board areas have been identified for involvement in this phase.
7. Partnership options and budget sources will be explored and investigated once phase two is complete.

Context

8. Submissions on the draft Regional Parks Management Plan from the Disabled Persons Assembly and community trusts highlighted the increasing need to improve public transport to regional parks.
9. The objectives on page 84 and 112 of the plan, responded to the submissions - which was finalised and adopted in December 2022:
    - Reduce greenhouse emissions relating to park user travel and improve equity of access to regional parks. (p.84)
    - Improve the inclusive use and enjoyment of parks by all people regardless of abilities, gender or ethnicity. (p.112)

10. Staff working on this objective initially focused on the feasibility of the public transport for five trial destination parks - Long Bay; Muriwai; Arataki area; Ambury and Omana Regional Parks. This phase included:

- Desktop research and on-site assessments
- Collaboration with Auckland Transport (initial phase)
- Community engagement (initial phase)
- A Parks Arts Community Events (PACE) workshop in August 2022
- Mana whenua forum presentation and discussion

11. Staff also explored successful international and national solutions, including:

- New Zealand: free bus service, running between Mangawhai and the beach, which has been funded by Kaipara District Council for two years.
- Canada: Free Shuttle Network connects four major cities to some of the national and provincial parks (Parkbus - Free Park Shuttles).
- USA, NY: Free Saturdays Shuttle Network to parks started in June 2022 (https://metro.nfta.com/programs/parks-adventure-bus).

Discussion

12. Phase Two focuses on community engagement - working with local groups, understanding their needs and expectations in more detail. Four local board areas have been identified for this phase - Henderson-Massey; Waitākere Ranges; Māngere-Ōtāhuhu and Ōtara-Papatoetoe

13. The reasons for selecting these areas are:

- The level of socio-economic deprivation (most of them score 6> out of 10 on the New Zealand Index of Deprivation)
- They are areas and communities near two of the project's (potential) destination parks - Ambury Regional Park and Waitakere Regional Park.

14. The staff are seeking the boards members' feedback on the community engagement within their regions.

15. The staff are not seeking local board funding for this initiative. Funding options including partnerships, sponsorship etc. will be considered following community engagement.

Next steps

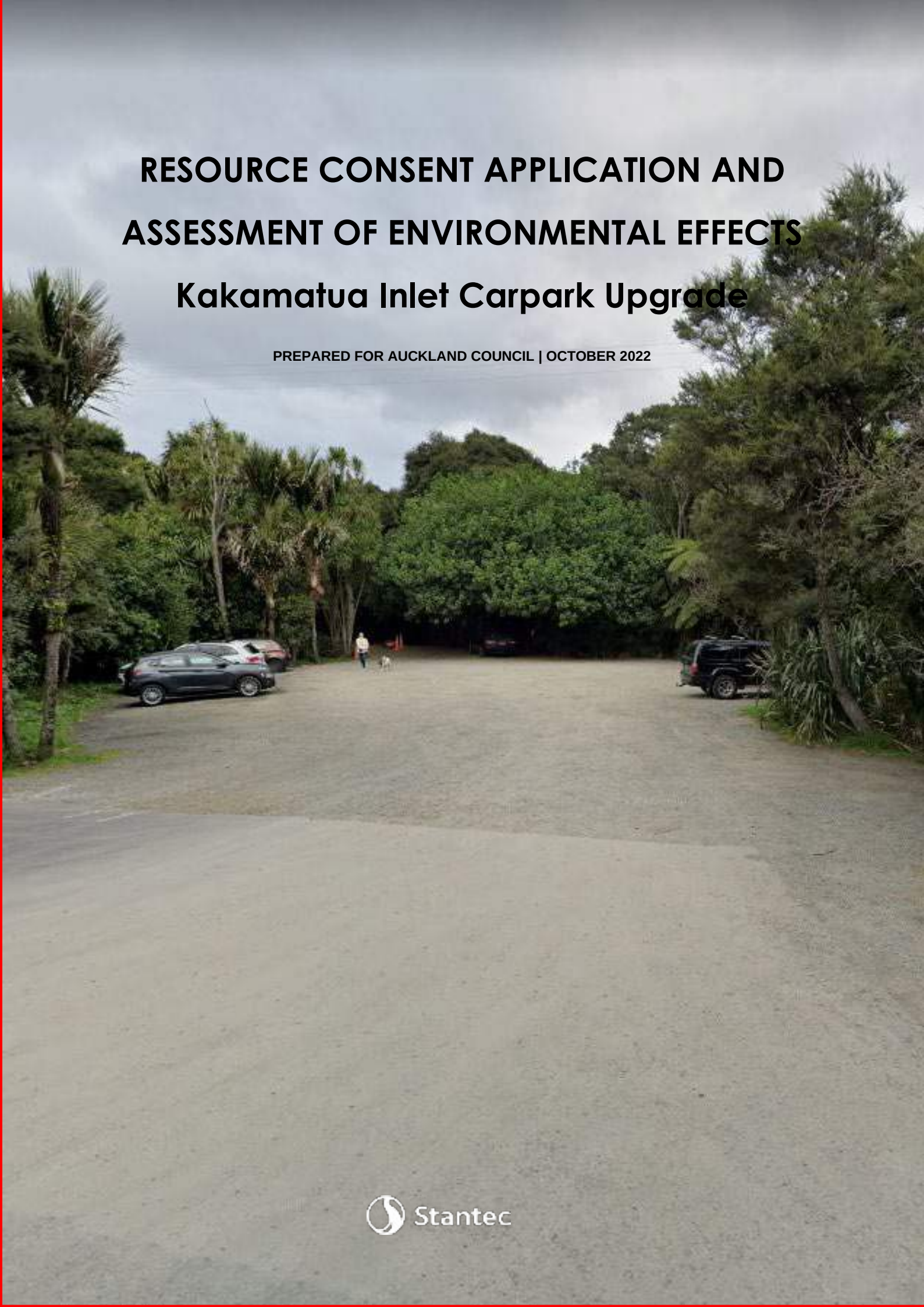
16. Following the workshop staff will:

- consider board member feedback and develop an appropriate community engagement approach using a collaborative approach working with strategic brokers and other council staff
- explore funding options including partnership models, Auckland Transport funding, working with the private sector etc.
- provide updates the local board as the project progresses

RESOURCE CONSENT APPLICATION AND ASSESSMENT OF ENVIRONMENTAL EFFECTS

Kakamatua Inlet Carpark Upgrade

PREPARED FOR AUCKLAND COUNCIL | OCTOBER 2022



Stantec

Revision schedule

Rev No	Date	Description	Signature of Typed Name (documentation on file)			
			Prepared by	**Checked by**	**Reviewed by**	**Approved by**
01	29/08/2022	Draft	SN	CM	CM	
02	29/08/2022	Draft Final for Client Review	SN			GS
03	03/10/22	Final Updated	SN			

This document was prepared by Stantec New Zealand ("Stantec") for the account of Auckland Council Community Facilities (the "Client"). The conclusions in the Report titled Resource Consent Application and Assessment of Environmental Effects – Kakamatua Inlet Carpark Upgrade are Stantec's professional opinion, as at the time of the Report, and concerning the scope described in the Report. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. The Report relates solely to the specific project for which Stantec was retained and the stated purpose for which the Report was prepared. The Report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

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Quality statement

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Executive summary

Auckland Council Community Facilities (CF) is proposing to redevelop an existing car park at the Kakamatua Waitākere Ranges Regional Park car park as part of the car park renewals programme. The car park size will increase from approximately 690m^2 to approximately 940m^2.

CF is seeking resource consent for vegetation alteration and removal within the Historic Heritage Overlay, Significantly Ecological Areas (SEA) Overlay, Outstanding Natural Landscapes (ONL) Overlay, High Natural Character (HNC) Overlay, Natural Stream Management Areas Overlay, Open Space Zone and within the road reserve.

The overall activity status is discretionary.

CF has not undertaken mana whenua engagement for vegetation removal in the SEA. Instead, CF elects that this be done via the Cultural Values Assessment (CVA) facilitation process offered by Auckland Council's regulatory services.

The relevant objectives and policies of the Auckland Unitary Plan (Operative in Part) have been assessed in relation to the proposed activities. An assessment of environmental effects has also been undertaken and the proposal is in accordance with Part 2 of the Resource Management Act 1991 (RMA). Overall, this resource consent application can be processed on a non-notified basis as the effects are less than minor, and it can be granted subject to conditions.

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Abbreviations

Enter Abbreviation	Enter Full Name
AUP-OP	Auckland Unitary Plan (Operative in Part)
DP	District Plan
HNC	High Natural Character
ONL	Outstanding Natural Landscapes
OPW	Outline Plan of Works
RP	Regional Plan
RUB	Rural Urban Boundary
SEA-T	Significant Ecological Area - Terrestrial
TPZ	Tree Protection Zone

Glossary

Enter Term	Enter Definition
Avifauna	Relating to birds
Edge Effects (biodiversity)	Changes in population or species along the boundary of a habitat
Herpetofauna	Relating to reptiles and amphibians
Keystone Species	An organism that helps define an entire ecosystem

1 Introduction

Auckland Council Community Facilities ("CF") is undertaking a region-wide upgrade of existing car parks. The Kakamatua Waitākere Ranges Regional Park car park referred to as Kakamatua Inlet car park ("the Site") is part of the car park renewals programme. The existing car park, located at 718 Huia Road, Parau and within Huia Road, is not large enough to service the peak weekend number of visitors to the park, and as a result visitors frequently park on the Huia Road margin adjacent to the carpark. This poses a safety risk as there is no formal roadside parking or footpath on Huia Road and is exacerbated by poor sightlines for the carpark.

To address this issue, it is proposed that the car park is extended and the surface and parking layout are formalised to increase capacity, reducing the requirement for visitors to park on the road berm. At the same time, small-scale improvements to the existing walking track connecting the car park to Kakamatua Stream will be undertaken.

Resource consent is being sought for vegetation alteration and removal within the Historic Heritage Overlay, Significantly Ecological Areas (SEA) Overlay, Outstanding Natural Landscapes (ONL) Overlay, High Natural Character (HNC) Overlay, Natural Stream Management Areas Overlay, Open Space Zone and within the road reserve.

This report provides the documentation, including an assessment of environmental effects, to support the application for the required district and regional consents.

The completed Form 9 application form is attached in **Appendix A** and the Record of Title is attached in **Appendix B**.

Figure 1-1: Location plan for Kakamatua Inlet Car Park. (Source: Auckland Council GIS Maps)

Figure 1-2: Aerial view of the Kakamatua Inlet car park circled in red. (Source: Auckland Council GeoMaps)

2 Scope of Works

This project comprises the following work:

- Extension and upgrade of the existing car park (refer to Figure 2-1) to accommodate 26 regular angled car parks;
- Provision of two accessible car parks;
- Installation of sediment control measures during construction (see Figure 2-2).
- Trimming and removal of selected trees;
- Installation of concrete edge beam;
- Overlaying the existing pavement with further basecourse;
- Full depth pavement construction in extended areas;
- Modification with 2% cement mixed into the granular layer;
- Installation of timber wheel-stops;
- Road markings;
- Minor improvements to the adjoining pedestrian track;
- Temporary traffic management;
- Reinstatement of site.

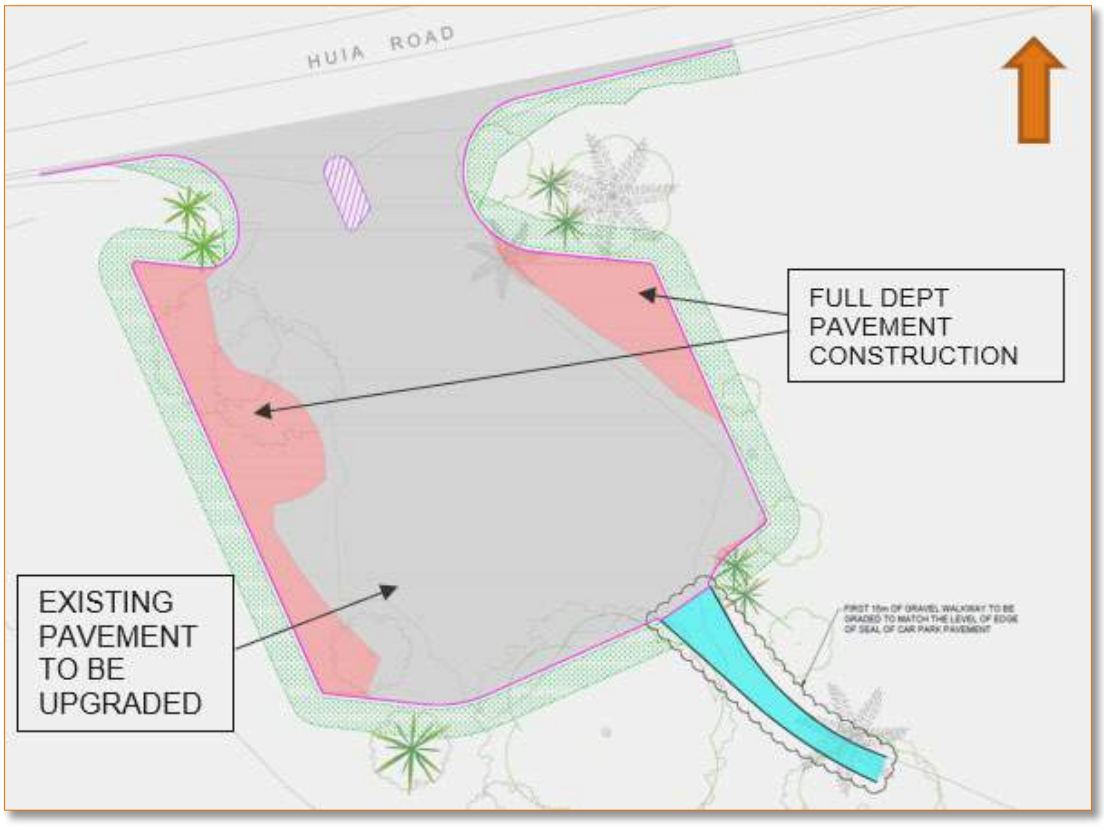

Figure 2-1: Areas of pavement construction. (Source: Stantec Drawings)

The pink shaded areas in Figure 2-1 indicate where the Type 2 deeper pavement will be constructed. These new pavement areas will require a dig-out to remove any surface vegetation and tree stumps. Timber wheel stops will be installed at the edges of the car park. These will not interfere with the flow of stormwater runoff, which will simply drain from the car park into the adjacent vegetated landscape. Markings indicating parking spaces will be sprayed onto the surface to indicate the 28 parking spaces.

The new car park will have a similar footprint to the existing metalled area but will have a more regular shape and more defined edges. The surface area of the Site will increase by approximately 250m^2 resulting in a total area of approximately 950m^2. The expansion of the Site will require the removal of a maximum of 150m^2 of kānuka scrub to be cleared. Tree removal will be required in the zones where excavation is required to reach the appropriate depth where the Type 2 pavement is to be constructed. The contractor will determine the maximum excavation depth required for the new pavement areas but it is expected that it may exceed 300mm. At this stage, it is anticipated that approximately 75m^3 of earthworks will be undertaken within the new 250m^2 area.

Along the periphery of the car park and transition with Huia Road, a 300mm x 300mm reinforced concrete edge beam will be installed with timber wheel stops bolted into it along the eastern and western parking bays. A 1.8m wide apron of imported topsoil seeded with grass is proposed around the edge of the new surfaces spreading outwards into the surrounding bush vegetation. A span of 15m of the Kakamatua Beach walk track will be regraded to match the level of the new car park edge of seal.

A silt fence will be erected along the lower southern edge of the car park during the construction phase.

The full set of design drawings is attached in **Appendix C** and the Construction Methodology is attached in **Appendix D**.

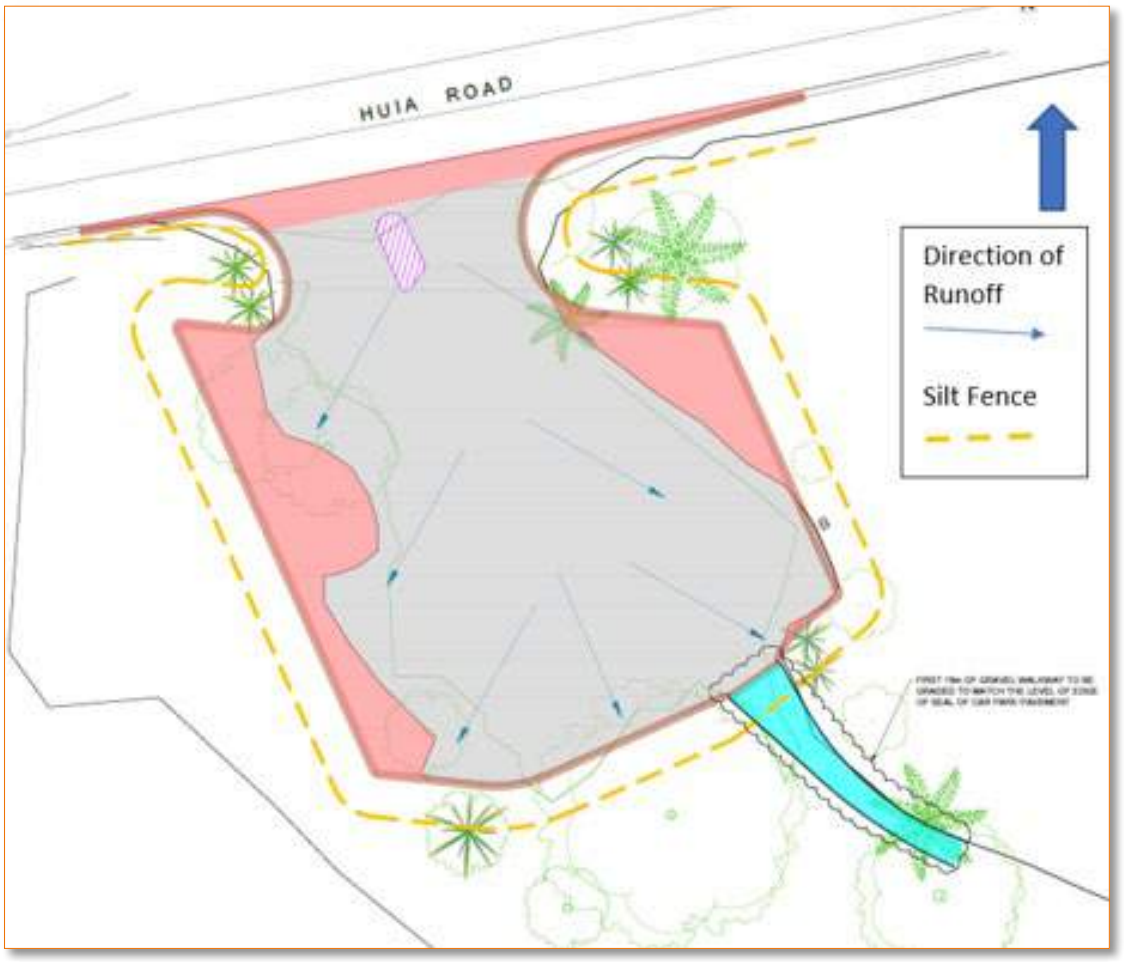

Figure 2-2: Silt fence protection and stormwater management. (Source: Stantec Design Drawing Set)

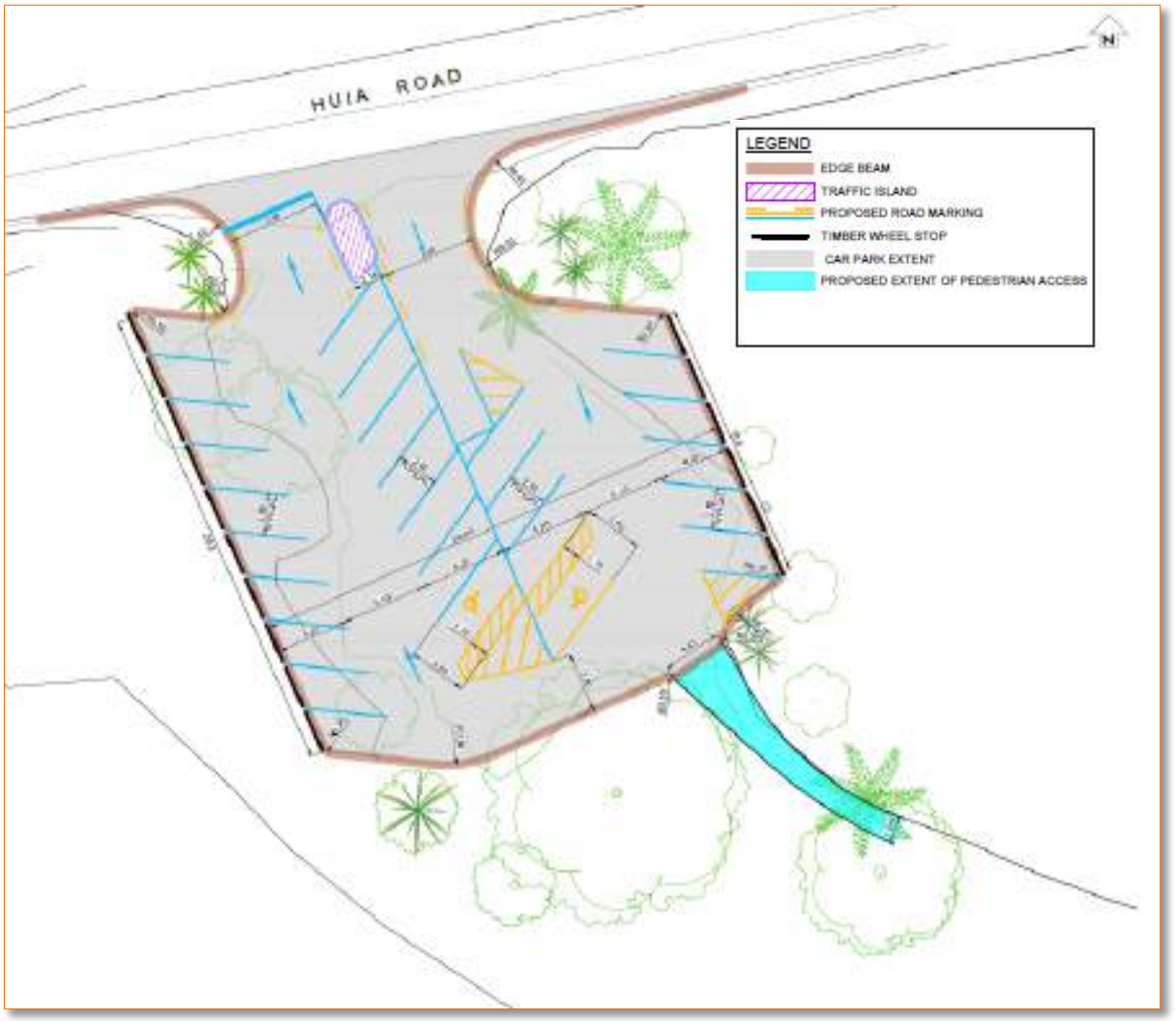

Figure 2-3: Proposed car park plan. (Source: Stantec Design Drawing Set)

3 Site Context

The Site is situated in the Waitakere Ranges off Huia Road (south) approximately 400m west of Cornwallis Road. An existing pedestrian track to the south connects the car park to the adjacent Kakamatua Stream and Kakamatua Beach Walk, which is a popular walking track that follows the Kakamatua Stream thought native kānuka scrub forest to the beach.

The existing car park is approximately 690m^2 in extent, is unsealed and has no drainage, line markings or kerbs. The footprint of the existing car park is irregular in shape with the car park meandering in and out of the surrounding vegetation. The informal gravel car park does not have clean edges like an urban car park but instead blends into the surrounding natural landscape on three sides.

Vegetation surrounding the car park is a mixture of mature kānuka canopy, mature nīkau and tī kōuka, and a wide-ranging mix of mature understory trees and vegetation. One mature pūriri grows at the southern edge of the car park and is a prominent feature at the entrance of the Kakamatua Beach walkway, a metalled bush track.

The Kakamatua Stream flows to the west of the Site, approximately 20m from the existing car park. It is a permanent stream with a catchment of approximately 530ha. The entirety of the stream catchment consists of indigenous vegetation with no urban or agricultural land upstream. No wetlands or areas of potential wetlands have been identified near to the Site.

There are overhead powerlines at the entrance to the Site as well as above the prominent pūriri tree at the southern edge (refer to Figure 3-1).

The surrounding environment is rural and coastal in nature with the closest rural-residential area (as the crow flies) at Cornwallis, approximately 1km to the southeast and at Foster Bay, approximately 1.2km to the west.

Figure 3-1: View of the Site from Huia Road located on the northern side of the site. (Source: Google Streetview)

Figure 3-2: View from the southern end of the Site looking north towards Huia Road. (Source: Stantec photographs)

Figure 3-3: View of the pedestrian track at the southern end of the car park. (Source: Stantec photographs)

Figure 3-4: View of the existing western parking bays and adjacent vegetation. (Source: Stantec photographs)

Figure 3-5: View of the existing eastern parking bays and adjacent vegetation. (Source: Stantec photographs)

4 Resource Consent Requirements

4.1 Background

4.1.1 Designation

Approximately half the Site is designated (reference 418), Regional Park (Waitākere Regional Parkland) in the AUP-OP for the purpose of regional park – for recreational use (including ongoing operation and maintenance of trails and visitor infrastructure for informal outdoor recreation activities) and for the conservation of natural and cultural values (refer to Figure 4-1).

Condition 1 of the designation requires *Any works to be undertaken in accordance with either the approved Regional Parks Management Plan (2010) or any subsequent management plan.*

Works will be undertaken in accordance with the Regional Parks Management Plan and the park specific management plan for Waitakere Ranges Regional Park - Kakamatua section.

Condition 2 states that, *Before any works, including new buildings, are undertaken an Outline Plan(s) shall be submitted in terms of Section 176A of the Resource Management Act 1991 to the Council unless the works are exempt, under Condition 3, from requiring an outline plan of works. The Outline Plan(s) of Works shall show those matters required by Section 176A of the Act and those matters specified in the following conditions (where relevant). All work shall be undertaken in accordance with the Outline Plan(s).*

Only half the Site is designated, with the northern half located within the legal road reserve, and the designated land will require regional consents for vegetation alteration and removal. Additionally, works outside the designation boundary will also require consents (district and regional) for tree removal in the road.

Some of the works may not be considered exempt from the requirement of an OPW under Condition 3, such as the removal of native tree species or modification of vegetation exceeding 1m from the car park edge. This resource consent application will fully address the district and regional consent matters both inside and outside the designation boundary, making the requirement for an OPW redundant. An OPW waiver request will be lodged with AC consenting team, if required.

Condition 3 lists, *The following works will be exempt from an outline plan of works, except where the works involve a scheduled heritage place, pursuant to section 176A (2) of the Resource Management Act 1991* (only the works relevant to the proposal are listed below)*:*

Development and maintenance of park infrastructure		***Nature of works***
Tracks	*Construction and maintenance of tracks and trails in a manner that prevents erosion and/or avoids sensitive natural and cultural features and sites*	*Construction and maintenance of tracks and trails up to 3.0m in width, including the construction of track structures, such as directional signs, information signs, safety barriers, foot-bridges, steps, board walks and rafts, and the maintenance of existing tracks involving:* *i. Water Tables and track drainage* *ii. Track surfaces* *iii. Track structures* *iv. Modification of vegetation up to 1m from the edge of the track.*
Car parking and roads	*Construction and maintenance identified in an approved management plan and minor alterations to existing car parks and roads*	*Works associated with approved car parking areas and access roads, including the modification of vegetation up to 1m from the edge of the car park or road, or within the car park for safety reasons*

Development and maintenance of park infrastructure		*Nature of works*
Vegetation	*Management of vegetation for specified reasons*	*Vegetation management involved in:* *i. Removal of non-native and non-scheduled plants* *ii. The development of approved works* *iii. The maintenance of view shafts identified in the Regional Parks Management Plan* *iv. Management of farm woodlots, including their harvest*

Condition 4 deals with Cultural / Heritage / Archaeological matters, specifically, *Where any works or development involve the demolition of, or alterations or additions to a scheduled historic heritage place (item) - an OPW is required.*

This is not applicable to the proposal. While the Site is located within a Historic Heritage Overlay Extent of Place, it is situated well away from the historic Roe's/Cornwallis Timber Mill (refer to Figures 4-3 and 4-4). There are no known archaeological sites within the works area.

Condition 5 relates to parking and access and requires that, *The following works related to new roading and/or additional parking shall be constructed to the satisfaction of council:*

> *i The first 20m of access from any sealed public road shall be appropriately sealed with all-weather dust free surface; and*
>
> *ii. Parking and loading areas immediately adjoining a public road shall be designed and constructed in accordance with AS/NZS 2890.1:2004 standards or any subsequent revisions*

Compliance with these requirements will be achieved.

Figure 4-1: Extent of Designation 418 covering approximately half the Site circled in red. (Source: Auckland Council GeoMaps)

4.1.2 Regional Parks Management Plan 2010

The Regional Parks Management Plan is applicable to the Site. In particular, the park specific management plan for Waitākere Ranges Regional Park and the management policies relating to Kakamatua. The relevant management policies for Kakamatua are as follows:

120. Manage Kakamatua as a beach track entrance offering remote coastal wilderness experiences.
121. Retain the unsealed car park and improve vehicular access to ensure safe egress from and onto Huia Road.

4.2 Auckland Unitary Plan (Operative in Part) 2016 Relevant Zoning, Overlays & Controls

4.2.1 Zoning

The Site is situated outside the Rural Urban Boundary (RUB). Approximately half the Site is located in the road reserve while the remaining southern half has a zoning of Open Space – Conservation Zone under the AUP-OP. The surrounding land is also zoned Open Space – Conservation Zone.

Figure 4-2: Site zoning of Open Space – Conservation Zone and location in the road reserve (Source: Auckland Council GeoMaps)

4.2.2 Overlays

The following Overlays apply to the Site:

- Historic Heritage and Special Character: Historic Heritage Overlay Extent of Place [rcp/dp] - 1, Roe's/Cornwallis Mill R11_119, R11_1088, R11_1064
- Natural Heritage: High Natural Character Overlay [rcp/dp] - AREA 41, Cornwallis
- Natural Heritage: Outstanding Natural Landscapes Overlay [rcp/dp] - Area 73, Waitakere Ranges and coastline
- Natural Heritage: Waitakere Ranges Heritage Area Overlay - Extent of Overlay
- Natural Resources: Natural Stream Management Areas Overlay [rp]
- Natural Resources: Significant Ecological Areas Overlay - SEA_T_5539, Terrestrial

Historic Heritage Overlay Extent of Place

Under Schedule 14.1: Schedule of Historic Heritage – 1, Roe's/Cornwallis Mill R11_119, R11_1088, R11_1064 is a Category B historic heritage place. Category B is defined as considerable significance to a locality or greater geographic area.

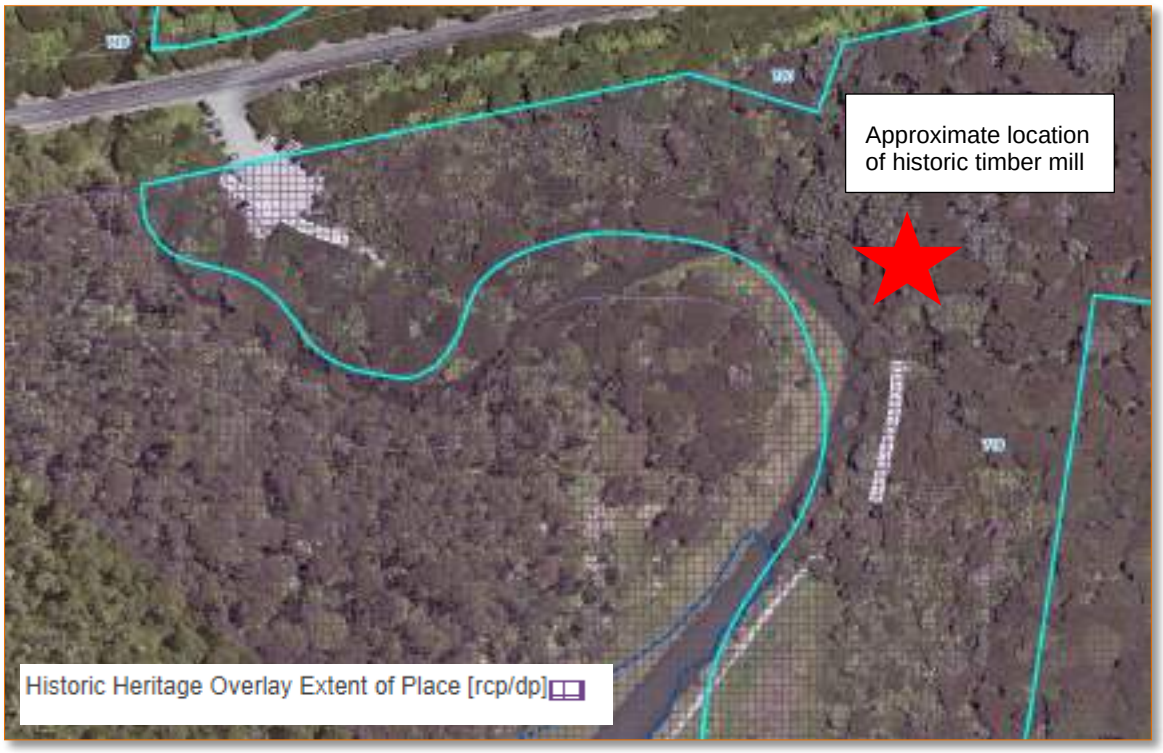

Figure 4-3: Historic Heritage Overlay Extent of Place. (Source: Auckland Council GeoMaps)

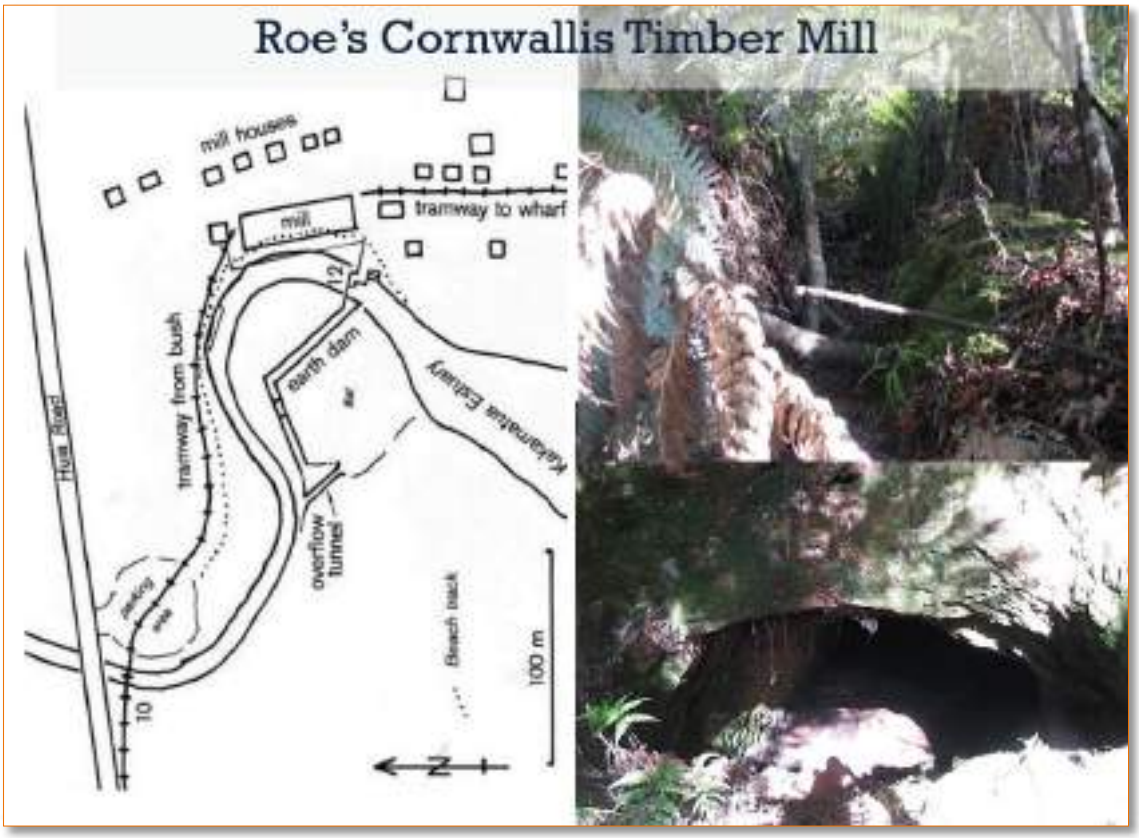

Figure 4-4: Location of the timber mill relative to the existing car park. (Source: Waitakere Ranges Heritage Area – Historic Heritage Upgrade Project (Mica Plowman and Rebecca Ramsay)

Figure 4-5: Significant Ecological Area Overlay. (Source: Auckland Council GeoMaps)

Figure 4-6: Natural Stream Management Overlay. (Source: Auckland Council GeoMaps)

4.2.3 Controls

The following Control applies to the southern edge of the Site:

- Controls: Coastal Inundation 1 per cent AEP Plus 1m Control - 1m sea level rise

Figure 4-7: Coastal Inundation 1 per cent AEP Plus 1m Control - 1m sea level rise. (Source Auckland Council GeoMaps)

4.2.4 Other Hydrology Information

Figure 4-8: Car park located within flood plain. (Source: Auckland Council GeoMaps)

4.2.5 Relevant AUP-OP Chapters

- D12 Land Disturbance - District
- D17 Historic Heritage Overlay
- E15 Vegetation Management and Biodiversity
- E16 Trees in Open Space Zones
- E17 Trees in Roads
- H7 Open Space Zones

Chapter E26 Infrastructure is not relevant to the proposed activity because car parking is considered an accessory activity and is not defined as network utility infrastructure.

In accordance with Chapter J Definitions, parks maintenance includes:

- track and trail maintenance and repair including re-metalling and re-surfacing of bush tracks; and
- resealing and sealing metal parking and access drives and internal park roads.

5 Rules Assessment

5.1 AUP-OP Chapter C General Rules

C1.9. Infringements of standards, states the following:

(1) Every activity that is classed as a permitted, controlled and restricted discretionary activity must comply with all the standards applying to that activity.

(2) An activity that is classed as a permitted, controlled or restricted discretionary activity but that does not comply with one or more of the standards applying to that activity is a restricted discretionary activity unless otherwise specified by a rule applying to the particular activity

5.2 AUP-OP Rules

The applicable Unitary Plan rules are presented in Table

Table 5-1: Relevant Rules under the AUP-OP

Activity	Rules	Performance Standards	Assessment/ Activity Status
Chapter D17 Historic Heritage Overlay			
Car park upgrade and walking track re-grade.	*Table D17.4.1 Activity table – Activities affecting Category A, A* and B scheduled historic heritage places [dp]* *(A7) Maintenance and repair of gardens, lawns, garden amenities, driveways, parking areas, effluent disposal systems, swimming pools, sports fields, courts and grounds, bridle paths, footpaths, cycle and walking tracks, including the planting of vegetation.*	*D17.6.3* *(1) Maintenance and repair of gardens, garden amenities, lawns, effluent disposal systems, swimming pools, bridle paths, footpaths, cycle and walking tracks, including the planting of vegetation within a scheduled extent of place, excluding features identified as exclusions, or non-contributing sites or features in Historic Heritage Areas, must not result in any of the following:* *(a) the removal of any tree or other planting identified in Schedule 14.1 Schedule of Historic Heritage;* *(b) earthworks or disturbance of land or the foreshore or seabed, where archaeological controls apply, other than as provided for as a permitted activity in Table D17.4.2 Activity table – Activities subject to additional archaeological rules; or* *(c) the planting of a tree where archaeological controls apply, other than as a replacement for a pre-existing tree where it is planted within the root plate of the pre-existing tree.*	Is a permitted activity for activities within the scheduled extent of place of Category B places subject to compliance with the relevant performance standards. Compliance - The re-grading of the entrance to the existing Kakamatua Beach walking track does not involve the removal of any tree identified in Scheduled 14.1. Non-compliance - Earthworks will be undertaken where additional archaeological controls apply as a discretionary activity, hence there will be non-compliance. Compliance - The proposal does not involve replacement planting.

Activity	Rules	Performance Standards	Assessment/ Activity Status
		(2) The maintenance and repair of driveways, parking areas, sports fields, courts and grounds within a scheduled extent of place, excluding features identified as exclusions, or non-contributing sites or features in Historic Heritage Areas, must not result in earthworks that extend more than 300mm below the surface where archaeological controls apply.	Non-compliance - Additional archaeological controls apply to the proposed activity. The earthworks proposed for the car park pavement construction may extend more than 300mm below the surface. The excavation depth can only be determined by the Contractor at the time of the works when the tree removals and root clearance are undertaken. Non-compliance with the relevant performance standards requires consent as a restricted discretionary activity pursuant to C1.9 Infringements of standards.
Tree removal for car park expansion works	*D17.4.2 Activity table – Activities subject to additional archaeological rules [dp]* *(A26) Removal of trees greater than 3m in height or greater than 300mm girth.*		All the trees proposed for removal exceed 3m in height, hence consent will be required as a discretionary activity.
Chapter E12 Land Disturbance – District			
Earthworks for walking track re-grade and car park expansion	*Table E12.4.1 Activity table – All zones and roads* *(A1) Earthworks for installation, operation, maintenance and repair of walking tracks is permitted activity in the Open Space - Conservation Zone and roads.* *(A2) Earthworks for operation, maintenance, resurfacing and repair of driveways and parking areas is a permitted activity in the Open Space - Conservation Zone and roads.* *(A3) General earthworks not otherwise listed in Table E12.4.1 Activity table – All zones and roads for earthworks up to 500m^2 is a permitted*	*E12.6.1 Accidental discovery protocols shall apply.* *E12.6.2 General standards* *(2) Land disturbance must not result in any instability of land or structures at or beyond the boundary of the property where the land disturbance occurs.* *(4) Access to public footpaths, berms, private properties, network utilities, or public reserves must not be obstructed unless that is necessary to undertake the works or prevent harm to the public.* *(5) Measures must be implemented to ensure that any discharge of dust beyond the boundary of the site is avoided or limited such that it does not cause nuisance.*	Ground levels may be raised more than 300mm though fill works and will exceed a total fill volume of up to 10m^3. The total fill volume for the new areas of earthworks (approximately 250m^2) is approximately 75m^3. Best practice erosion and sediment controls will be implemented. Accidental discovery protocols will be implemented, as proposed in Appendix G. Consent will be required as a restricted discretionary activity.

Activity	Rules	Performance Standards	Assessment/ Activity Status
	activity in the Open Space - Conservation Zone and roads. *(A7) General earthworks not otherwise listed in Table E12.4.1 Activity table – All zones and roads for earthworks up to 250m^3 is a permitted activity in the Open Space - Conservation Zone and roads.*	*(10) Only cleanfill material may be imported and utilised as part of the land disturbance* *(11) Earthworks (including filling) within a 100 year annual exceedance probability (AEP) flood plain:* *(a) must not raise ground levels more than 300mm, to a total fill volume up to 10m^3 which must not be exceeded through multiple filling operations; and* *(b) must not result in any adverse changes in flood hazard beyond the site.* *(13) Temporary land disturbance and stockpiling of soil and other materials within the one per cent annual exceedance probability (AEP) flood plain and/or overland flow path for up to a maximum of 28 days in any calendar year may occur as part of construction or maintenance activities.* *(15) Earthworks for maintenance and repair of driveways, parking areas, sports fields and major recreational facilities within the Historic Heritage Overlay must not extend more than 300mm below the surface where additional rules for archaeological sites or features apply as listed in Schedule 14 Historic Heritage Schedule, Statements and Maps.*	
Chapter E15 Vegetation Management and Biodiversity			
Tree alteration and removal for car park upgrade	*Table E15.4.1 Activity table - Auckland-wide vegetation and biodiversity management rules.* *(A12) Vegetation alteration or removal of any vegetation within a Natural Stream Management Areas Overlay*	*E15.6.4. Vegetation alteration or removal for routine operation, maintenance and repair of existing tracks, lawns, gardens, fences, shelterbelts and other lawfully established activities in riparian areas, coastal areas, all zones outside the RUB and in overlays identified in Table E15.4.2.* *(2) Vegetation alteration or removal must not include trees over 6m in height, or 600mm in girth.*	Restricted discretionary
	Table E15.4.2 Vegetation and biodiversity management in overlays		Vegetation alteration and removal will involve greater than 50m^2 of contiguous

Activity	Rules	Performance Standards	Assessment/ Activity Status
	(A28) Vegetation alteration or removal of greater than 50m^2 of any contiguous indigenous vegetation in the high natural character (HNC) and outstanding natural landscapes (ONL) overlays.	*(3) Vegetation alteration or removal must not result in greater than 25m^2 of vegetation removal from within a Significant Ecological Areas Overlay, Outstanding Natural Features Overlay, Outstanding Natural Character Overlay, High Natural Character Overlay or the Outstanding Natural Landscapes Overlay per site.* *E15.6.6. Vegetation alteration or removal of any indigenous contiguous vegetation up to 50m^2 in a High Natural Character Overlay or Outstanding Natural Landscapes Overlay.* *(1) Vegetation alteration or removal must not include trees over 6m in height, or 600mm in girth.* *E15.6.8 Vegetation alteration or removal undertaken within the 100-year ARI floodplain.* *(1) Vegetation alteration or removal must ensure that erosion control measures associated with vegetation removal and replanting, such as mulch or bark, are not able to be swept off-site in a flood event.* *E15.6.9 Tree trimming within Significant Ecological Areas* *(1) The maximum branch diameter must not exceed 50mm.* *(2) No more than 10 per cent of live growth of the tree is removed in any one calendar year.* *(3) Trimming must meet accepted modern arboricultural practice.* *(4) The trimming must retain the natural shape, form and branch habit of the tree.*	indigenous vegetation in the HNC and ONL overlays. Restricted discretionary
	(A41) Tree trimming in the SEA-T overlay		Permitted activity
	(A43) Any vegetation alteration or removal not otherwise provided for in the SEA-T overlay.		Discretionary activity

Activity	Rules	Performance Standards	Assessment/ Activity Status
Chapter E16 Trees in Open Space Zones			
Tree alteration and removal for car park upgrade	*Table E16.4.1 Activity Table: Trees in open space zones* *(A5) Tree trimming and alteration.* .	*E16.6.1 Tree trimming or alteration* *(1) The maximum diameter of any branch removed must be no greater than 100mm at severance.* *(2) No more than 20 per cent of live growth of the tree may be removed in any one calendar year.* *(3) All works must be carried out in accordance with best arboricultural practice.* *(4) All trimming or alteration must retain the natural shape, form and branch habit of the tree.* *(5) Any diseased tree material is to be treated in accordance with the Biosecurity Act 1993*	Permitted Activity Compliance with the relevant PA standards will be met.
	(A7) Works within the protected root zone	*E16.6.2Works within the protected root zone* *(1) For roots less than 60mm in diameter:* *(b) excavation undertaken by hand digging, air spade, hydro vac or machine excavator within the protected root zone with direction and/or supervision of a works arborist:* *(i) works must not disturb more than 20 per cent of the protected root zone;* *(ii) works involving root pruning must not be on roots greater than 60mm in diameter at severance;* *(iii) any machine excavator must operate on top of paved surfaces and/or ground protection measures; and* *(iv) any machine excavator must be fitted with a straight blade bucket.* *(d) replacement of existing structures, kerbs, and hard surfaces within the protected root zone must be done so that:*	Permitted Activity Refer to the Arboricultural Assessment in Appendix E. Excavation within the protected root zone will be undertaken with direction and/or supervision of a works arborist. Compliance with the relevant PA standards will be met.

Activity	Rules	Performance Standards	Assessment/ Activity Status
		(i) the removal of the surface is carried out without damage to any tree roots; and *(ii) the machine excavator must operate on top of paved surfaces and/or ground protection measures and must be fitted with a straight blade bucket.* *(2) For roots greater than 60mm but less than 80mm in diameter:* *(a) excavation undertaken by hand digging, or air spade, or hydro vac or machine excavator within the protected root zone with direction and/or supervision of a qualified arborist:* *(i) works must not disturb more than 20 per cent of the protected root zone;* *(ii) works involving root pruning must not be on roots greater than 80mm in diameter at severance;* *(iii) any machine excavator must operate on top of paved surfaces and/or ground protection measures;* *(iv) any machine excavator must be fitted with a straight blade bucket; and* *(v) the Council's manager for Parks, Sports and Recreation must be notified prior to commencing work.*	
	(A10) Tree removal of any tree greater than 4m in height and greater than 400mm girth.		All the trees proposed for removal are greater than 4m in height. Restricted Discretionary
Chapter E17 Trees in Roads			
Tree removal for car park expansion	*Table E17.4.1 Activity Table: Trees in roads* *(A10) Tree removal of any tree greater than 4m in height or greater than 400mm in girth.*	N/A	All trees identified for removal exceed 4m in height. Restricted Discretionary
Chapter H7 Open Space Zones			
Car park expansion	*H7.9.1 Activity Table – Open Space Zones*	N/A	Discretionary Activity

Activity	Rules	Performance Standards	Assessment/ Activity Status
	(A50) Construction of vehicle access and parking areas in the Conservation Zone		

5.3 Other Consenting Requirements

No consents are required under Chapter E27 Transport because the proposal complies with the relevant provisions for parking located in an open space zone.

No consents are required under Chapter E9 Stormwater Quality – Hight contaminant generating car parks and high use roads because the proposal does not meet the definition of either. The design of the upgrade to the car park will not exceed 30 vehicles; and that part of the car park defined as 'road' will not carry more than 5000 vehicles per day. Hence, the proposed activity will not be a high contaminant generating activity.

No other consents are required.

5.4 Summary of Consenting Requirements

Resource consents are required for the following activities:

- Car park upgrade in the Historic Heritage Overlay not complying with the relevant performance standards (RDA).
- Vegetation alteration or removal of any vegetation within the Natural Stream Management Areas (NSMA) Overlay (RDA).
- Vegetation alteration or removal of greater than $50m^2$ of any contiguous indigenous vegetation in the HNC and ONL overlays (RDA).
- Any vegetation or removal not otherwise provided for in the SEA-T Overlay (car park extension) (DA).
- Tree removal of any tree greater than 4m in height and greater than 400mm girth in roads (RD).
- Construction of vehicle access and parking areas in the Open Space – Conservation Zone (DA).
- Earthworks in a floodplain exceeding $10m^3$ (RDA).

The overall activity status is discretionary.

6 Assessment of Environmental Effects

Section 88 of the RMA requires the applicant to make an assessment of any actual or potential effects that the proposed activity may have on the environment and the ways in which any adverse effects may be mitigated. Section 88 requires that any such assessment shall be in such detail as corresponds with the scale and significance of the actual and potential effects that the activity may have on the environment.

Having reviewed the relevant planning documents including the assessment criteria, it is considered relevant to assess environmental effects relevant to the following issues in relation to this proposal:

- Positive effects;
- Aboricultural effects;
- Ecological effects;
- Visual amenity effects;
- Cultural heritage effects;
- Earthworks effects;
- Stormwater runoff effects;
- Temporary Construction effects.

6.1 Positive Effects

The expansion of the existing car park as well as formalising the parking bays will increase capacity and enable the current number of visitors to park safely on the Site. The first 15m of the Kakamatua Beach Walk track will be graded to match the level of the new car park edge of seal ensuring that there is a safe transition between these spaces.

6.2 Arboricultural Effects

The arborist has assessed the effects (refer to Appendix E) of the proposal, as follows:

The proposed expansion of the existing car park will require the removal of a number of trees from directly within the footprint. Excavation to modify the existing metal and to remove ground cover vegetation, stumps, and leaf litter from the new areas will be within the tree protection zone (TPZ) of further trees within the surrounding bush. The edge beam will constitute a linear severance of all roots within the top 300-400 mm of soil around the periphery of the site. The proposed topsoil and grass batter beyond the edge beam will bury the trunk collars of all trees within their extent and cover any seedlings. Therefore, the works will impact vegetation beyond the extent of works, particularly where the TPZ of surrounding trees are altered.

These will be impacted by mechanical severance of roots and a reduction in the permeable root zone, and potentially wherever cement modification of the subbase is able to come into contact with roots. Pouring the edge beam concrete directly against bare earth will come into contact with exposed roots from the nearby vegetation.

The current metal surface allows the permeation of water into the soil beneath and is available to the surrounding trees. In changing to an impermeable asphalt surface, the natural permeation of rainwater into the soil will be altered. Stormwater is intended to run off the surface at the edges, which should continue to provide rainwater to the surrounding areas. If the surface is not laid evenly or becomes rutted, then the water could be channelled into a few locations. This has the potential to cause scouring and localised waterlogging, therefore it is important that any low points are shaped so that this cannot occur close to the remaining canopy trees.

The pūriri (tree 1 – refer to Tree Plan in Appendix E) will be impacted by the removal of the existing metal and the edge beam construction and is likely to require some minor crown reduction along the northern aspect for clearance as cars will be directed up to the southern edge around a new central row of spaces. Overhead clearance pruning to crown lift the canopy can be achieved by reducing high order branches, and will account for no more than 10% of the live foliage. The area of TPZ being lost to asphalt is 12% with the edge beam being installed 4.8 m from the trunk. It is expected for a few coarse roots to be present at the edge beam, but generally the surface here is well compacted, and it is anticipated that the tree will be utilising the uncompacted open bush areas for the majority of its root functions. Overall, the cumulative effects of root severance and no more than 10% live foliage reduction pruning would be a temporary reduction in water availability and photosynthetic capability, that would be recoverable within one or two growing seasons. The removal of the metal beyond the edge beam, including within the structural root zone has far more potential to cause long-term damage to the tree, and for this reason, it should be left in situ. If wholesale removal of the

metal is undertaken there is potential for underlying structural roots to be damaged or become exposed. Incidental root loss would almost certainly occur where the metal has become mixed with soil.

Trees 2 (kānuka), 3, and 4 (tī kōuka) could be impacted by the grading of metal on the footpath if it is not undertaken with care and arboricultural direction. Trees 2 and 3 abut the path. The existing footprint should be utilised here and pegged timber edging added on top of the existing metal if needed, rather than disturbing any of the existing metal. Dynamic input from a supervising works arborist will be required.

Trees 5 (nīkau), 6 and 7 (tī kōuka) will be impacted by the metal removal, edge beam construction and loss of permeable root zone. It is anticipated that these could all require removal. There is some uncertainty in the accuracy of their plotted locations, and as these trees do not have woody structural roots, it is possible that with on-site arboricultural input and protection measures, they can be retained even with excavations in close proximity.

Tree 9 (English oak) is an imported exotic species in this setting. They easily grow from acorns and could have been transported to the site by a number of means. Oak produce allelopathic (plant inhibiting) chemicals that regulate competing growth within their vicinity. In time, it will form a dominant canopy, and native species will be crowded out. There is currently a good coverage of understory trees and plants, and it is advisable to remove the oak during the works to retain the native vegetation cover. Climbing arborists will be needed to carefully dismantle and extract the tree from its surroundings without causing collateral damage. If necessary, the trunk can be left in situ, but the stump must be chemically treated to prevent regrowth.

Tree 12 (kānuka) at the car park entrance will be impacted by the earthworks and edge beam and would require pruning to reduce the overhang where vehicles turn in. Combined, the loss of foliage and roots would have a detrimental impact on the tree's health that it would not be expected to recover from. It is for this reason that it is proposed for removal.

Trees and vegetation along the western extent of the new car park will all be removed. These include a group of karamū and ponga (tree group 13), three mature kānuka (trees 14,15 and 16) and several harakeke beneath, and two early mature kānuka (trees 17 and 19). The edge vegetation between these trees includes māhoe, tī kōuka, nīkau and harakeke. In total, the area of canopy vegetation proposed for removal is 440m^2, of which 120 m^2 is SEA vegetation that will be permanently lost.

The effects of the proposal are the removal of 440m^2 of canopy cover, including seven early mature to mature kānuka, ten mature nīkau, five tī kōuka and the associated understory. 120m^2 of SEA area will be lost permanently. The English oak tree is not included in this calculation as it can be removed carefully to leave the understory intact and is a positive outcome.

As the removed vegetation will cut back into the wider bush, there will be no areas to carry out remedial replanting. During the site visit pest plants growing and dumped garden waste around the car park was observed. A contracted period of weed control and tidying up of waste to support the expected natural revegetation around the car park edge should be considered.

While the ecological survey did not identify any kauri within the extent of works, they are present within the wider area, and earthworks are proposed within a soil area that is contiguous to that of kauri trees. There is a foot wash station at the footpath entrance to control the spread of kauri dieback, which is known to be present within this area of the Waitakere Ranges. Phytosanitary protocols are required to prevent the spread of kauri dieback disease to and from the site using a blanket approach to all works. Soil and vegetative material excavated from the site must be either disposed of in a controlled manner at an approved landfill or repurposed on-site.

Mitigation consent conditions are proposed in Appendix G. These include the requirement of a suitably qualified and experienced on-site supervisory arborist to be engaged at the start of the project. The role of the works arborist will be to supervise and coordinate all works and activities within the TPZ of protected trees, including the removal of existing structures and trees.

Silt fencing will not include any dug in elements other than steel posts in this setting as it will encounter and sever roots, causing further impacts on the health of retained trees. Silt socks, which can be secured to the ground with steel pins/posts, is recommended to be used for silt control measures.

A condition requiring that the existing metal beyond the new edge beam be left in situ to prevent unnecessary damage to retained trees and vegetation that will inevitably result from its removal, is proposed. The footpath re-grading alignment and methodology will be worked out on-site with arboricultural direction to prevent damage to trees lining the footpath

There is a requirement for soil generated from the edge beam construction to be filled into a plastic lined skip bin, covered and taken away for temporary storage. The soil can then be reused to create the edge beam batter at the completion of works. Controlling the soil in this manner will minimise the potential spread of kauri dieback.

The implementation of the combined mitigation measures will ensure that any potential adverse effects generated from the works relating to tree pruning, tree removals and works within the protected root zone will have a less than minor effect on the surrounding vegetation.

6.3 Ecological Effects

The ecologist has undertaken an assessment of the potential adverse effects (refer to Appendix F), which is summarised below.

6.3.1 Vegetation

The site is located within the Waitakere Ecological District and Waitakere Ranges Significant Ecological Area, although only the margin of the existing car park overlaps with the SEA overlay. As with much of the Waitakere Ranges Regional Park, a large proportion of the catchment remains as native vegetation. Outside of the existing metalled carpark, vegetation consists of a diverse forest canopy and understory. A single large pūriri tree is a key feature of the site and is located at the southern end of the existing carpark, adjacent to the start of the Kakamatua Inlet walking track. No kauri were observed within or adjacent to the Site.

The immediate margin of the carpark is characterised by a higher proportion of exotic species and would be subject to an increased level of 'edge effects'. Exotic pasture grasses and other exotic herbaceous plants line the edge of the carpark where there is reduced canopy shading. Several large flax are present on the western boundary of the carpark. Native vegetation on the boundary of the carpark is typically in poorer condition than that deeper in the bush, with dead / failing branches observed on several kanuka and mahoe. Small areas (<5 m²) of invasive bindweed and black nightshade have become established on the margins of the Site and will expand into the adjacent native forest if left unchecked.

A single approximately 8m tall oak tree is located to the east of the carpark, outside of the immediate subject site area. The tree is currently juvenile, but will become the keystone species and shade out native canopy vegetation when it reaches maturity. The ecological value of the Site has been assessed as being Very High.

It is anticipated that a maximum of 150m² of native kānuka, mahoe, kawakawa, tree fern, nīkau palm, and other regionally common tree species will be cleared to facilitate the proposed car park expansion, including the understory of juvenile nīkau and tree ferns. However, the arborist notes that the vegetation clearance equates to approximately 440m^2 of canopy cover. This figure is a conservative maximum, referencing canopy coverage and all trees within 1m of the car park edge and also and includes a number of trees outside the SEA.

Nonetheless, vegetation clearance will be minimised, and efforts will be made to retain as many trees as possible, trimming vegetation rather than removing entire trees, where appropriate. The feature pūriri tree will be retained and protected for the duration of works. Due to the extent of existing native forest in the Kakamatua Stream catchment there are limited areas available for vegetation replanting. However, it may be possible to plant a small area of low growing vegetation (such as flax) near the entrance to the Kakamatua Inlet track.

Tree protection measures, such as demarcating trees to be retained and avoiding earthworks within the root zone will reduce the risk of damaging trees to be retained. Phytosanitary protocols are required to prevent the spread of kauri dieback disease to and from the Site using a blanket approach to all works and once implemented would reduce the magnitude of effect to negligible in the wider catchment scale**.** A weed and pest animal control programme will be implemented to mitigate vegetation loss and retain the sites high ecological values.

6.3.2 Avifauna

The subject site supports a diverse vegetation community which in turn support an equally diverse range of native bird species. Given the small area of the Site, relative to the wider Waitakere Ranges with a known population of endangered species; no formal avifauna surveys were undertaken. During the site visit a number of native bird species were observed including tui, grey warbler, and New Zealand fantail.

The wider Waitakere Ranges are known to support a wide range of native bird species including threatened species such as the nationally vulnerable stitchbird. Such species could potentially utilise the vegetation on the subject site for habitat, as it provides foraging opportunities and connectivity across the wider landscape.

Due to the extent of available bird habitat and known populations of native birds, including nationally vulnerable species, in the Waitakere Ranges the current ecological value of the site has been conservatively assessed as High.

To limit the impact on native birds, vegetation clearance will be minimised and efforts will be made to retain as many trees as possible, trimming vegetation rather than removing entire trees, where possible.

Furthermore, native birds may nest in trees to be removed. If any vegetation clearance occurs within the bird breeding season (September to February inclusive), then trees to be removed must be searched (by a suitably qualified ecologist) for native nesting birds prior to being felled. If native nesting birds are located, a 10m area around the tree will be cordoned off and no works will occur within until the chicks have fledged. Avoiding works within the bird breeding season or undertaking a nesting bird search would reduce the magnitude of effect to negligible.

6.3.3 Herpetofauna

Given the small area of the subject site, relative to the wider Waitakere Ranges, and known populations of native lizards in the Waitakere Ranges, for the purpose of this assessment a conservative assumption is that threatened species may be present within the site. As such, lizards were not systematically surveyed during the site visit. However, incidental observations noted the presence of the exotic plague skink. Given the abundance of lizard habitat within the subject site and known populations of native lizards in the Waitakere Ranges, it is considered that there is a high likelihood of native herpetofauna presence.

The car park itself has no value as native lizard habitat, however the native forest bordering the carpark has excellent habitat for both ground dwelling skinks and arboreal geckos. Skinks live amongst dense, complex ground cover such as leaf litter, fallen fern or palm fronds, woody debris, and low growing vegetation such as flax or bindweed mats. All of which are present along the border of the carpark. Further skink habitat has been created via the fly-tipping of garden waste into the forest edge. These piles of garden waste represent high quality skink habitat, and are where the incidental skink observations were made. Geckos live in dense native canopy vegetation such as kanuka, which is the main canopy species at the subject site

It is probable that 'At Risk - Declining' species such as copper skink, elegant gecko, and forest gecko are present at the Site. Due to the threat status of these species, the current herpetofauna value of the site has been assessed as Very High.

Lizard search and salvage (by a suitably qualified and certified herpetologist) will be implemented to mitigate any potential risk to native lizards. All ground cover (i.e., woody debris, groundcover vegetation) must be searched for lizards prior to vegetation clearance. Vegetation to be removed will not be mulched but instead searched by a herpetologist as it is felled and cut into manageable lengths to be retained on site. Any native lizards located during vegetation clearance will be relocated to nearby high-quality lizard habitat. Retained vegetation will be moved to the release site and stacked into piles to enhance release site lizard habitat values. The appropriate implementation of the standard lizard search and salvage conditions being proposed will reduce the magnitude of effect to low.

6.3.4 Bats

Given the small area of the subject site, relative to the wider Waitakere Ranges and known populations of the native long-tailed bat in the Waitakere Ranges, a detailed bat survey was not undertaken. Long-tailed bats prefer to roost in larger, older, canopy trees with cavities, epiphytes, and loose bark. No such habitat is present on the subject site. Although pūriri are known to provide roosting habitat, the Site pūriri is not considered to represent suitable roosting habitat due to its proximity to the carpark and ongoing noise disturbance. Any long-tailed bats present are therefore likely utilising the areas as temporary foraging. Long-tailed bats feed on the wing, utilising waterways and forest-edge as foraging grounds and movement corridors where invertebrate life is likely to be more abundant. The sites proximity to Kakamatua Stream and Huia Road mean the site has been assessed as moderate-high quality feeding habitat.

Short-tailed bats prefer deep-forest habitat and are associated with old growth indigenous forest. The only known population of short-tailed bats known to the Auckland Region is found on Little Barrier Island. As such their presence within the Site is considered extremely unlikely. Due to the 'Threatened – Nationally Critical' threat status of long-tailed bats, the current bat value of the site has been assessed as High.

Bats are nocturnal animals and roost during daylight hours. By limiting construction activities to daylight hours, the magnitude of effect of noise and light disturbance on bats will be reduced to negligible.

6.3.5 Freshwater Values

No streams are present within the immediate Site, however the Kakamatua Stream flows roughly 20m to the west of the site. No wetlands (or areas of potential wetland) were identified within 100m of the Site. Where it flows past the Site, the Kakamatua Stream is a large (8-10m wide) permanent stream with a catchment of approximately 530ha. The stream has high freshwater habitat values, with extensive riparian vegetation, overhead cover, and instream habitat. The entirety of the stream catchment consists of indigenous vegetation, with no urban or agricultural land upstream. Historic records of 'Threatened – At Risk' longfin eel and 'Threatened – Naturally Uncommon' giant bully in the Kakamatua Stream. It is noted that these records are from 2001, but given the lack of modification in the catchment, it is probable these species are still present. Due to the quality of the freshwater habitat present, pristine catchment, and threat status of fish species that have been recorded in the stream; the current freshwater habitat value of the Site has been assessed as High.

Best practice erosion and sediment control measures will be implemented for the duration of works, and the carpark will be designed so that stormwater runoff is diffuse. Mitigating sediment discharges will reduce the magnitude of effect to negligible**.**

6.4 Character & Visual Amenity Effects

The proposed vegetative clearance equates to approximately 440m^2 of canopy cover. This area represents a moderate change in immediate site character, but is considered to be a negligible change on a landscape scale and overall, a low

effect on vegetation values. The vegetation clearance around the perimeter of the expanded car park will not be discernible in the context of the wider environment.

To preserve the natural character and amenity of the Site, vegetation clearance will be minimised, and efforts will be made to retain as many trees as possible, trimming vegetation rather than removing entire trees, where possible.

The feature pūriri tree will be retained and protected for the duration of the works.

6.5 Historic Heritage

The Site has a Historic Heritage Overlay Extent of Place. Under Schedule 14.1: Schedule of Historic Heritage – 1, Roe's/Cornwallis Mill R11_119, R11_1088, R11_1064 is a Category B historic heritage place. Category B is defined as considerable significance to a locality or greater geographic area.

The location of Roe's/Cornwallis Mill, as shown in Figure 4-4 is located a reasonable distance (approximately 150m) away from the existing car park and works area. Hence, there will be no adverse effects generated from the car park upgrade works in relation to any loss of cultural heritage values. There are no known archaeological sites within the Site and immediate surrounds. As a mitigation measure, accidental discovery protocols are proposed as consent conditions in Appendix G. The implementation of which will ensure that the appropriate protocols are followed in the event that any archaeological artifacts are uncovered during excavation works.

6.6 Stormwater Effects

An increase in impervious coverage, could potentially alter catchment hydrology. Changes in hydrology can have adverse effect on streams within the catchment, including accelerating river and stream erosion and bank instability, that generate sediment that can accumulate in the receiving environment.

The redevelopment of the Site will result in a minor increase in impervious area from 690m² to 940 m². Given the small portion of the Kakamatua Stream catchment impacted this increase is considered to be negligible. The new car park pavement material is likely be clean and inert to prevent any contaminant generation from the car park surface. The retained riparian vegetation buffer will filter sheet runoff contaminants and further reduce the risk of contaminants reaching the receiving environment. Accordingly, the proposal is a permitted activity under Chapter E9 of the AUP(OP).

Any potential adverse effects of changes to the quantity and quality of stormwater discharged from the Site would be mitigated by implementing appropriate erosion and sediment controls, suitably designed stormwater drainage, and existing riparian vegetation.

6.7 Flooding Effects

The entire carpark is located within a floodplain. Earthworks will only be undertaken within the new expansion area that is approximately 250m^2 in extent. The ground level is this area may be raised by more than 300mm resulting in an approximate earthworks volume of 75m^3, which exceeds the permitted threshold of 10m^3. There are no buildings being proposed, hence there will be no impediments to the flow of flood waters resulting in downstream effects. Flood waters will continue to flow overland and into the nearby stream.

6.8 Temporary Construction Effects

6.8.1 Earthworks Effects

The earthworks proposed is relatively small in scale. As with all land disturbance activities, such as demolition and construction, there is the potential for sediment to be discharged from the Site into the receiving environment. Any potential sediment runoff will be addressed through the requirement for industry best practice erosion and sediment controls during any land disturbance activities. Geotextile silt fencing will be installed to ground level to avoid tree root disturbance. An Erosion and Sediment Control Plan together with silt control details are attached in Appendix C. Any potential adverse effects of sediment contamination on the receiving environment will be mitigated by implementing best practice erosion and sediment control. Accidental discovery protocols will be implemented.

6.8.2 Access

Access to the Site will be restricted during construction and the Kakamatua Beach walk track will be closed from the car park entrance while the car park upgrade works as well as the walking track modification works are being undertaken. The inconvenience experienced will be temporary in nature.

6.8.3 Noise

Noise is expected to be generated during tree removal and construction, as it would be expected with any other roading or construction work. The remote setting of the Site will mitigate construction noise to the closest sensitive receiver located approximately 700m away. The works are anticipated to be undertaken in accordance with the national construction noise standards.

6.8.4 Dust

Given the limited amount of earthworks proposed for the extended areas of the car park, dust generation is not anticipated to be an issue. Dust generated from the tree felling will be contained within the immediate area and will not be an issue in the wider environment. The surrounding vegetation will screen the dust generated from earthworks and tree felling from the wider environment.

6.9 Conclusion

Provided that mitigation measures are appropriately implemented, any adverse effects of the proposed car park redevelopment on the receiving environment will be less than minor.

7 Statutory Considerations

7.1 Section 104 RMA

Before making a decision on a discretionary activity pursuant to Section 104B of the RMA, Council must consider the proposal in terms of Section 104 of the RMA. Section 104 of the RMA outlines the matters that the consent authority is required to have regard to when considering consent applications. The matters relevant to these applications are discussed in the following sections.

7.1.1 Section 104(1)(a) RMA: Actual and Potential Environmental Effects

The actual and potential adverse effects are assessed in Section 6 of this application. Through the adoption of a site-specific methodology, and the implementation of mitigation measures, the identifies adverse effects have been assessed as being less than minor.

7.1.2 Section 104(1)(b)(i) RMA: National Environmental Standard(s)

There are no National Environmental Standards relevant to this application. The National Environmental Standard for Freshwater (NES-F) is not triggered by the proposed works. in particular, there are no wetlands within 100m of the Site.

7.1.3 Section 104(1)(b)(v) RMA: Auckland Regional Policy Statement

The Auckland Regional Policy Statement (ARPS) sets the regional priorities for the Auckland Region and is incorporated within the AUP-OP. The ARPS contains provisions to achieve the integrated management of natural and physical resources of the whole region. The following objectives and policies are considered relevant to this application:

Table 7-1: Auckland Regional Policy Statement – Relevant Objectives and Policies

Objective	Policies	Assessment
B4. Te tiaki taonga tuku iho - Natural heritage *B4.2. Outstanding natural features and landscapes* *B4.2.1. Objectives* *(1) Outstanding natural features and landscapes are identified and protected from inappropriate subdivision, use and development.*	*B4.2.2 Policies* *(3) Protect the physical and visual integrity of Auckland's outstanding natural landscapes from inappropriate subdivision, use and development*	The vegetation clearance for the proposed car park expansion works will be small-scale relative to the vegetation occurring within wider forest area. Every effort will be made on-site during construction works to retain tress and vegetation wherever possible. A works arborist will be on-site to direct and/or supervise works.
B5. Ngā rawa tuku iho me te āhua – Historic heritage and special character *B5.2 Historic heritage* *B5.2.1. Objectives* *(1) Significant historic heritage places are identified and protected from inappropriate subdivision, use and development.* *(2) Significant historic heritage places are used appropriately and their protection, management and conservation are encouraged, including retention, maintenance and adaptation.*	*B2.2.2 Policies* *(7) Avoid where practicable significant adverse effects on significant historic heritage places. Where significant adverse effects cannot be avoided, they should be remedied or mitigated so that they no longer constitute a significant adverse effect.*	The proposed upgrade works will not affect the historic Roe's/Cornwallis Timber Mill, which is located an adequate distance away from the car park.

Objective	Policies	Assessment
B7.2 Toitū te whenua, toitū te taiao – Natural resources *B7.2 Indigenous biodiversity* *B7.2.1 Objectives* *(1) Areas of significant indigenous biodiversity value in terrestrial, freshwater, and coastal marine areas are protected from the adverse effects of subdivision use and development.*	*B7.2.2 Policies* *(5) Avoid adverse effects on areas listed in the Schedule 3 of significant Ecological Areas – Terrestrial Schedule and Schedule 4 Significant Ecological Areas – Marine Schedule.*	Only the margin of the existing car park overlaps with the SEA overlay. Therefore, the loss of SEA vegetation will be minimal.

Based on the above assessment, it is considered that the project is generally consistent with the ARPS.

8.1.4 Section 104(1)(b)(vi) RMA: Auckland Unitary Plan (Operative in Part) 2016

The relevant objectives, policies and assessment criteria are presented in Table 8-2.

Table 7-2: Relevant AUP-OP Objectives, Policies and Assessment Criteria

Assessment Criteria	Objectives and Policies	Assessment
N/A	***D4. Natural Stream Management Areas Overlay*** *D4.2. Objective [rp]* *(1) Rivers and streams identified as natural stream management areas with high natural character and high ecological values are protected.*	While the Site is located in the NSMA overlay, there are no streams present within the immediate Site. Kakamatua Stream flows approximately 20m to the west of the Site. Riparian vegetation will remain intact and high natural character and high ecological values will therefore be maintained.
	D4.3. Policies [rp] *(1) Protect the in-stream values and riparian margins of natural stream management areas.*	
N/A	***D9. Significant Ecological Areas Overlay*** *D9.1.1 Significant Ecological Areas – Terrestrial (SEA-T)* *D9.2. Objectives [rp/dp]* *(1) Areas of significant indigenous biodiversity value in terrestrial, freshwater, and coastal marine areas are protected from the adverse effects of subdivision, use and development.*	Only the margin of the existing car park overlaps with the SEA overlay. Therefore, the loss of SEA vegetation will be minimal. The overall biodiversity value of the area will not be compromised by the proposal.
	D9.3. Policies [rp/dp] *(1) Manage the effects of activities on the indigenous biodiversity values of areas identified as significant ecological areas by:* *(d) mitigating adverse effects on the identified values where they cannot be avoided or remediated*	

Assessment Criteria	Objectives and Policies	Assessment
N/A	***D10. Outstanding Natural Features Overlay and Outstanding Natural Landscapes Overlay*** *D10.2. Objectives [dp]* *(1) Auckland's outstanding natural features and outstanding natural landscapes are protected from inappropriate subdivision, use, and development.* *D10.3. Policies [dp]* *(1) Protect the physical and visual integrity of outstanding natural landscapes by:* *(a) avoiding the adverse effects of inappropriate subdivision, use and development on the natural characteristics and qualities that contribute to the values of the outstanding natural landscape;*	The proposed vegetation removal will be minimal relative to the wider natural landscape. Tree protection measures will be implemented and every effort will be made on-site to retain as much of the vegetation as possible. Overall, the proposal will not compromise the visual integrity of the landscape.
N/A	***D12. Waitākere Ranges Heritage Area Overlay*** *(6) Subdivision, use and development in the heritage area is subservient to the natural and rural landscape and character* *D12.3. Policies* *(1) Limit subdivision and development within the heritage area to protect its heritage features.*	The vegetation removal for the car park expansion will be small-scale when compared to the overall environment. Vegetation removal will be minimised on-site and works will be undertaken with the supervision of a works arborist. The vegetation loss will be indiscernible and the natural landscape within the Waitakere Ranges Heritage Area Overlay will not be compromised by the proposed works. The rural landscape and character will be retained.
D17.8.2. Assessment criteria *(1)(a) whether the proposed works will result in adverse effects (including cumulative adverse effects) on the heritage values of the place and the extent to which adverse effects are avoided, remedied or mitigated.*	***D17. Historic Heritage Overlay*** *D17.2. Objectives [dp]* *(2) Scheduled historic heritage places are protected from inappropriate subdivision, use and development, including inappropriate modification, relocation, demolition or destruction* *D17.3. Policies [dp]* *(3) Enable the use, development and adaptation of scheduled historic heritage places where:* *(a) it will not result in adverse effects on the significance of the place;*	The proposed excavation works to remove vegetation for the car park extension may exceed more than 300mm in depth. The works are located well away (approximately 150m) from the historic timber mill site along a bend in the Kakamatua Stream to the east. Excavation works will be carefully managed and accidental discovery protocols will be implemented. The proposed works will not adversely imp[act on the heritage values of the place.
E15.8. Assessment – Restricted discretionary activities *E15.8.2. Assessment criteria* *(1) all restricted discretionary activities:* *(a) ecological values:*	***E15. Vegetation management and biodiversity*** *E15.2. Objectives [rp/dp]* *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.*	A weed and pest animal control programme will be implemented to mitigate vegetation loss and retain the sites high ecological values. Vegetation clearance will be avoided during bird breed season. Lizard search and salvage by a suitably qualified and certified herpetologist will be implemented to

Assessment Criteria	Objectives and Policies	Assessment
(i) the extent to which the vegetation alteration or removal is minimised and adverse effects on the ecological and indigenous biodiversity values of the vegetation are able to be avoided, remedied or mitigated; *(ii) whether vegetation removal will have an adverse effect on threatened species or ecosystems; and* *(iii) the extent to which the proposal for vegetation alteration or removal has taken into account relevant objectives and policies in Chapter B7.2 Indigenous biodiversity, B4. Natural heritage, Chapter E15 Vegetation Management and biodiversity, E18 Natural character of the coastal environment and E19 Natural features and natural landscapes in the coastal environment.* *(c) sediment, water quality and hydrology:* *(i) the extent to which vegetation alteration or removal will adversely affect soil conservation, water quality and the hydrological function of the catchment and measures to avoid remedy or mitigate any adverse effects.* *(d) landscape, natural features and natural character values:* *(i) the extent to which vegetation alteration or removal will have adverse effects on the values identified for scheduled outstanding natural landscape, outstanding natural features, outstanding natural character and high natural character areas;*	*E15.3. Policies [rp/dp]* *(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.*	mitigate any potential risk to native lizards. Given the absence of suitable roosting habitat present within the Site, bats are considered to be only transiently present for feeding. The proposed activities will not result in any noticeable change in bat foraging opportunities or movement pathways since bats are nocturnal animals and roost during daylight hours when the construction activities will be occurring. Best practice erosion and sediment control measures will be implemented for the duration of works, and the carpark will be designed so that stormwater runoff is diffused into the surrounding vegetation. The retained riparian vegetation buffer will filter sheet runoff contaminants and further reduce the risk of contaminants reaching the receiving environment. While the ecological survey did not identify any kauri within the extent of works or adjacent to the Site, they are present within the wider area. Hence, phytosanitary protocols are required to prevent the spread of kauri dieback disease to and from the site using a blanket approach to all works.
(1) all restricted discretionary activities: *(a) 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* *(b) the loss of amenity values that tree or trees provided;* *(d) any alternative methods that could result in retaining the tree or trees;* *(g) methods to contain and control plant pathogens and diseases including measures for preventing the spread of soil and the safe disposal of plant material;*	***E16. Trees in open space zones*** *E16.2. Objectives* *(1) Trees in open space zones that contribute to cultural, amenity, landscape and ecological values are protected.*	The Kakamatua Inlet car park is a popular location for people wanting to park and walk down to Kakamatua Beach. The car park extension is considered necessary to enable more cars to safely be accommodated on the Site. Approximately half the existing car park is located within the road reserve. Only those trees deemed absolutely necessary for removal by the works arborist will be cleared and every effort will be made to reduce the number of trees being removed. Given that there is insufficient space for replacement planting, none are

Assessment Criteria	Objectives and Policies	Assessment
	E16.3. Policies *(2) Manage trees within open space zones to protect their cultural, amenity, landscape and ecological values, while acknowledging that multiple uses occur in open space areas*	offered. There may however be opportunity to plant a small area of low growing vegetation (such as flax) near the entrance to the Kakamatua Inlet walking track. Instead of replacement planting as mitigation, a weed and pest animal control program to control exotic pest vegetation (such as bindweed and morning glory) on the Site and surrounding area will be implemented to maintain existing high ecological values in the vicinity of the car park.
E17.8.2 Assessment criteria *(1) all restricted discretionary activities:* *(a) 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;* *(b) the loss of amenity values that tree or trees provided;* *(d) any alternative methods that could result in retaining the tree or trees;* *(g) methods to contain and control plant pathogens and diseases including measures for preventing the spread of soil and the safe disposal of plant material.*	***E17. Trees in roads*** *E17.2. Objectives* *(1) Trees in roads that contribute to cultural, amenity, landscape and ecological values are protected.* *E17.3. Policies* *(3) Manage trees in roads to protect their cultural, amenity, landscape and ecological values while acknowledging that multiple uses occur in roads*	The number of trees to be removed in the road reserve is small in proportion to the adjacent remaining trees within the road reserve. A single oak tree approximately 8m tall located to the east of the car park, outside the works area will also be removed. The tree is currently juvenile but will become the keystone species and shade out native canopy vegetation when it reaches maturity. Hence, the removal is deemed appropriate.
H7.13.2. Assessment criteria *(3) Whether the proposal is consistent with the outcomes sought in any relevant adopted reserve management plan, conservation management strategy or conservation management plan and the ability to avoid, remedy or mitigate any adverse effects resulting from any inconsistency with the relevant management plan.*	***H7. Open Space zones*** *H7.4. Open Space – Conservation Zone* *H7.4.2. Objectives* *(1) The natural, ecological, landscape, Mana Whenua and historic heritage values of the zone are enhanced and protected from adverse effects of use and development.* *H7.4.3. Policies* *6) Locate and design vehicle access and parking to have minimal impact on the values of the zone through all of the following:* *(a) ensuring there is minimal disturbance to the existing landform and vegetation.*	Car parking is necessary in this remote location where there are not a lot of options to access the Site using other modes of transport. The land is already modified by the existing car park and the relatively small increase to the car park size of approximately 250m^2 will not compromise the values of the open space - conservation zone. The vegetation loss is considered minimal in the wider natural landscape context. The car park extension is being undertaken on a flat gradient, hence no landforms will be impacted by the proposed works. The maximum impervious area created through the car park expansion will be less than 5,000m^2, which is less than 10 per cent of the Site area.

Overall, the proposal will be consistent with the relevant objectives, policies and assessment criteria of the AUP-OP.

7.2 RMA Part 2 Matters

Schedule 4 clause 2(1)(f) requires that an application for a resource consent for an activity must include an assessment of the activity against the matters set out in Part 2 of the RMA.

Part 2 of the RMA sets out the purpose and principles of the RMA. The purpose is to promote the sustainable management of natural and physical resources (section 5). Part 2 also provides further direction on the matters of national importance (section 6), other matters (section 7) and the principles of the Treaty of Waitangi (section 8) which require consideration. The relevant matters under each section are discussed in detail in the following sections.

7.2.1 Section 5 – Purpose

The purpose of the Act is to promote the sustainable management of natural and physical resources. The proposal meets the intent of the purpose because an existing car park is being utilised to accommodate the overflow parking to the Site. The expansion area will require minimal vegetation clearance when considering the wider landscape and overall context.

7.2.2 Section 6 – Matters of National Importance

The relevant matter under section 6 is as follows:

(a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:

(b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:

(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:

(d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:

(f) the protection of historic heritage from inappropriate subdivision, use, and development:

A relatively small-scale extension to the existing car park is proposed. The loss of vegetation will be minimised through tree protection measures and on-site arborist supervision during the construction works. The loss of the vegetation will not be highly discernible to the wider environment and will not compromise the landscape and ecological values of the Site. Riparian vegetation will remain intact and will maintain the ecological values of the stream margin. The walking track will be modified to match the level of the upgraded car park and once complete, public access will resume along Kakamatua Stream down to Kakamatua Beach. The historic heritage site at Roe's/Cornwallis Timber Mill further to the east along Kakamatua Stream will remain unaffected by the proposed works.

7.2.3 Section 7 – Other Matters

The relevant matters under section 7 are as follows:

7(b) the efficient use and development of natural and physical resources:

The existing car park is being redeveloped and expanded. No new site is being cleared of indigenous vegetation for the construction of a new car park.

7 (c) the maintenance and enhancement of amenity values:

There will be minimal adverse effects on amenity values. The loss of vegetation is minimal and will not be highly discernible to the wider environment.

7(f) maintenance and enhancement of the quality of the environment

The quality of the environment will be maintained. The car park redevelopment works will be undertaken to ensure that bird, bat and lizard habitats will not diminish. The riparian vegetation will remain intact ensuring that the ecological values of the neighbouring stream are maintained.

7.2.4 Section 8 – Treaty of Waitangi

Section 8 of the RMA requires those exercising powers or functions under the RMA to take into account the principles of the Treaty of Waitangi. The proposal is not considered to conflict with the principles of the Treaty. The

proposed upgrade works will be undertaken on a modified site that is not identified as a location of particular interest to Mana Whenua.

7.2.5 Summary

Any potential adverse effects on the receiving environment are deemed to be minimal and it is considered that the proposal promotes sustainable management as set out in Part 2 of the RMA. Overall, the proposed works are considered to be consistent with Part 2 of the RMA.

8 Consultation

CF has Given the nature of the proposal and the scale of the effects, consultation was not deemed necessary.

9 Notification

CF has not undertaken mana whenua engagement for vegetation removal in the SEA. Instead, CF elects that this be done via the Cultural Values Assessment (CVA) facilitation process offered by Auckland Council's regulatory services.

It is unclear whether consultation has been undertaken with Auckland Council's Heritage team.

No parties are considered potentially adversely affected by the proposal to the extent that it warrants either limited or public notification.

10 Duration and Lapsing

10.1 Duration

Section 123 of the RMA states that section 9 RMA land use consents are granted for an unlimited period unless otherwise specified in the consent.

In this case, it is considered appropriate that consent be granted for a five-year period for the construction phase.

10.2 Lapsing

The works are intended to commence immediately, but outside the bird breeding season, once consent is granted or soon as practicable. Therefore, the default lapsing period (five years) specified in section 125 of the RMA is appropriate.

11 Conclusion

Overall, the proposal requires resource consents under the AUP-OP as a discretionary activity.

Any potential adverse effects on the surrounding environment are anticipated to be minimal. The proposed works are in accordance with the relevant objectives and policies of the AUP-OP and the purpose of the RMA.

Given the scale, character and intensity of the proposed activity, no parties are considered potentially affected.

On this basis, it is considered that Council can grant this application on a non-notified basis.

Appendices

We design with community in mind

Appendix A Application Form

Appendix B Record of Title

Appendix C Design Drawings

Appendix D Construction Methodology

Appendix E Arboricultural Assessment

Appendix F Ecological Impact Assessment

Appendix G Volunteered Conditions

General

1. These consents must be carried out in general accordance with the consent application and its associated plans and documents lodged with Auckland Council on documents and drawings and all supporting additional information submitted with the application detailed below.
2. Where there may be contradiction or inconsistencies between the application and conditions of consent, the conditions will apply.
3. The Consent Holder must ensure that a copy of this consent and all documents and plans referred to in this consent, are kept on site at all times and presented to any Council officer on request.

Specific conditions – Land Use Consent

Pre-Construction Meeting

4. The Consent Holder shall arrange and conduct a pre-construction site meeting prior to any work authorised by this consent commencing on site and invite, with a minimum of 5 working days' notice, Auckland Council and the contractor undertaking the works.

Earthworks

5. The earthworks and erosion and sediment control activities must be undertaken in accordance with the plans and information submitted with the application documents referenced under Condition 1.

Accidental Discovery

6. If, at any time during site works, sensitive materials (koiwi/human remains, an archaeology site, a māori cultural artefact, a protected NZ object), contamination or a lava cave greater than 1m in diameter) are discovered, then the protocol set out in standards E11.6.1 and E12.6.1 of the Auckland Unitary Plan (Operative in Part) must be followed. In summary these are:
    a. All earthworks must cease in the immediate vicinity (at least 20m from the site of the discovery) and the area including a buffer secured to ensure all sensitive material remains undisturbed.
    b. The consent holder must immediately advise Council, Heritage New Zealand Pouhere Taonga and Police (if human remains are found) and arrange a site inspection with these parties.
    c. If the discovery contains koiwi, archaeology or artefacts of Māori origin, representatives from those Iwi groups with mana whenua interest in the area must be provided with information on the nature and location of the discovery; and
    d. The consent holder must not recommence works until the steps set out in the above-mentioned standards have been followed and commencement of works approved by Council.

Tree Protection Methodology

7. Tree protection must form a part of any site-specific hazard management and is to be included in daily toolbox meetings and all site inductions.
8. No work shall take place within the tree protection zone of the trees without prior approval from the works arborist. Any amendments to the tree protection methodology shall require prior written approval from the works arborist.

Pre-start

9. The consent holder is to engage the services of a suitably qualified and experienced on-site supervisory arborist (the 'works arborist'), who is to supervise and coordinate all works and activities within the tree protection zone of protected trees.

10. Prior to any works commencing on site, the consent holder is to arrange a site meeting with the works arborist, council's monitoring officer, council's arborist and the contractor who has overall responsibility for the works. The purpose of this meeting is to discuss the conditions of consent. At this meeting, the contractor responsible is to confirm to the satisfaction of the works arborist and council the following:

    • Methods for implementing staff awareness of tree protection and phytosanitary requirements

    • Site mark out

    • Tree removal methodology and site access

    • Programming of works

    • Demolition and construction site access and transportation of materials

    • Temporary storage areas for materials

    • Excavations within the vicinity of retained trees

Reporting

11. At the completion of works, the works arborist, at their discretion, shall sign off the work of the contractor and, if requested, provide a brief account of the project to the council arborist (if necessary, with photos). The account of works shall include, but not be limited to:

    • The effects of the works on the subject trees

    • Any remedial work which may be necessary

Protective fencing

12. Prior to works commencing, tree protection fences (see detail TP-01 in Appendix B) are to be erected as shown on the appended site drawing (2347_001_A). The fence shall serve as demarcating a complete construction exclusion zone. There must be no construction activities taking place within the construction exclusion zone.

13. The fence must remain in place for the duration of the project. There is to be no storage or stockpiling of materials, tools and equipment within the area enclosed by the fence. The protective fence may only be removed/relocated at the direction of the appointed works arborist. Any site activity which needs to take place within the fence must be done under the supervision and in coordination with an appointed supervising arborist.

14. No person, vehicle or machinery are to enter the area enclosed by the fence unless otherwise authorised to do so by the works arborist. If for any reason it becomes necessary to move the protective fence, then the area previously enclosed by the fence shall be regarded in the same way as if the fence were still in place.

15. Suitably visible weather-resistant signs are to be hung on each face of the fence, translated as necessary to read.

CONSTRUCTION EXCLUSION ZONE
PROTECTED TREES
KEEP OUT

Ground protection

16. No material is to be stored, emptied or disposed of in or around the tree protection zone of any of the trees unless otherwise authorised to do so by the works arborist. Any material which is to be stored or temporarily placed in or around the tree protection zone of any of the trees shall be stored carefully on an existing or temporary hard surface such as asphalt or plywood sheets, respectively.

17. If, during the course of the works, machinery or vehicle access/ manoeuvring is required in or around the tree protection zone of any of the trees, then those areas are to be covered with a protective overlay sufficient to protect the ground from being muddied, compacted, churned up or otherwise disturbed (for example 'Track Mats', or a layer of mulch or sand/SAP7 overlaid, if necessary, with a raft of wired planks, plywood or similar) (see detail TP-04).

18. If machinery/vehicles are to be operated or stored within the tree protection zone area on an existing or temporary load-bearing surface, then the machinery/vehicle shall not cause any detrimental effect to the tree(s) through compaction, physical damage, spillage of lubricants and fuels or discharge of waste emissions.

Excavations in and around tree protection zones

19. All excavations which are to take place in or around the tree protection zone of any of the trees shall be done so in conjunction with the works arborist, through a careful combination of pneumatic soil displacement, hand digging and machine excavation and to the satisfaction of the works arborist. Where the works arborist deems it likely that roots will be encountered in the holes, then these areas shall first be explored using hand tools only to check for the presence of such roots.

20. Where concrete is to be poured into excavations containing exposed roots, then all exposed roots shall first be covered in a layer of polythene to prevent the concrete from contacting the exposed root (see detail TP-06).

Protecting and pruning roots

21. Every effort shall be made to avoid root severance from all trees by exploring on-site alternatives to construction/engineering, i.e., adjusting alignments etc. Where root severance is unavoidable, the severance of any root is to be carried out by the works arborist, who shall select the most appropriate implement for the task. Roots shall be cut cleanly to ensure that the traumatic cambium is able to initiate new root growth as effectively as possible, and the exposed cut faces should be covered over immediately with moist soil.

22. Where roots to be retained are encountered, and there is a need for these roots to remain exposed in order that works are not impeded, then those roots shall be covered with a suitable protective material (such as moist Hessian or a wool mulch) in order to protect them from desiccation and/or mechanical damage until such a time as the area around the root can be backfilled with the original material. The wrapping or covering of any roots shall be undertaken by the works arborist.

Other Tree Matters – Kauri Dieback

Removing material from the site

23. Any material (including soil) from the site, which is to be removed to an approved landfill facility must then be buried within the ground. Alternatively, the soil, roots and any other woody material may remain on-site. Soil to be re-used on-site may be temporarily stored off-site. Where the material is to be loaded onto the back of an open top vehicle, the material must be covered with a tarpaulin (or similar) to prevent the material from leaving the vehicle whilst it is in motion. After the material has been emptied from the truck, the areas of the truck which were previously exposed to the material and the tarpaulin must be thoroughly washed with Sterigene (or other suitable agent) prior to the truck or tarpaulin being used for the transportation of any other material.

Cleaning of equipment

24. All footwear, clothing, tools, vehicles and equipment used on site shall be cleaned of all soil, vegetation, or other material that has, or may have, come from a kauri contamination zone and must be thoroughly washed with Sterigene (or other suitable agent) on entry and exit from the site, on every occasion, to avoid the spread of kauri dieback.

Ecological Matters

Pest Plan and Animal Management

25. Prior to the commencement of any vegetation removal works, the consent holder shall submit a Pest Plant and Animal Management Plan (PPAMP), that describes the weed control and pest animal management actions that will be undertaken. The PPAMP will include details on the method and timings on control actions to be implemented.

Protection of Herpetofauna

26. Prior to the commencement of any vegetation removal works, the consent holder shall employ a suitably qualified and experienced ecologist/herpetologist approved to oversee and undertake the full implementation of the Lizard Management Plan (LMP).

Protection of Nesting Birds

27. All vegetation removal shall occur outside the main native bird nesting season (September - February, inclusive) to minimise any disturbance risk that vegetation removal would have on nesting birds. If vegetation clearance is unavoidable during the main native bird nesting season, an approved and experienced ecologist must visually observe and inspect all trees and shrubs proposed for removal within 48 hours prior felling to identify any active nests. This includes checking cavities and hollows for nesting birds.

28. Should any nesting be identified, a 10m buffer of vegetation shall be required to remain around the nest site until the ecologist has confirmed that the nest has naturally failed, or the chicks have hatched and naturally fledged the natal site.

Appendix H Planning Maps

DESIGN WITH COMMUNITY IN MIND

Communities are fundamental. Whether around the corner or across the globe, they provide a foundation, a sense of place and of belonging. That's why at Stantec, we always design with community in mind.

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Kakamatua Carpark

Ecological Impact Assessment

Revision 1

Prepared for Auckland Council Community Facilities

Document Control

Client Name: Auckland Council Community Facilities

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Executive Summary

Morphum Environmental Limited was engaged by Auckland Council Community Facilities to prepare an Ecological Impact Assessment to support a resource consent application for improvements to the existing Kakamatua Inlet carpark located on Huia Road, Huia.

Kakamatua Inlet is a popular walking track and dog walking area in the Waitakere Ranges. There is an existing carpark set into native bush at the site, however, it is not large enough to service the peak weekend number of visitors. As a result, visitors frequently park on the Huia Road margin adjacent to the carpark. This poses a safety risk as there is no formal roadside parking or footpath on Huia Road and is exacerbated by poor sightlines for the carpark entrance.

To address this issue, it is proposed to expand the carpark and formalised the parking layout to increase capacity, reducing the requirement for visitors to park on the road berm.

For this assessment the subject site is considered to include the approximately 700 m^2 existing metalled carpark and a maximum of 150 m^2 of kānuka scrub to be cleared for the carpark expansion. The Kakamatua Stream flows on the west of the site, 20 m from the existing carpark, and is a permanent river with a catchment of approximately 530 ha. The entirety of the stream catchment consists of indigenous vegetation, with no urban or agricultural land upstream.

The site is located within the Waitakere Ecological District and Waitakere Ranges Significant Ecological Area. As with much of the Waitakere Ranges Regional Park, a large proportion of the catchment remains as native vegetation. Outside of the existing metalled carpark, vegetation consists of a diverse forest canopy and understory including kānuka (*Kunzea ericoides*), nīkau palm (*Rhopalostylis sapida*), mahoe (*Melicytus ramiflorus*), karamu (*coprosma robusta*), mamaku (*Sphaeropteris medullaris*), and kawakawa (*Piper excelsum*) among others. A single large pūriri (*Vitex lucens*) is a key feature of the site.

The diverse forest community present provides Very-High habitat function and ecological value for native avifauna, herpetofauna, and bats. While only regionally common species were observed during the site visit, native species known to exist in the Waitakere Ranges include threatened species such as the stitchbird (No*tiomystis cincta*), elegant gecko (*Naultinus elegans*), and long-tailed bat (*Chalinolobus tuberculatus*). Due to the high quality and extent of native habitat present, on and surrounding the site, a conservative assessment that threatened species are potentially present has been made. As such, current ecological values have been assessed as High-Very High. The site is considered to represent excellent ground dwelling skink and arboreal gecko habitat. The abundance of skink habitat has been furthered by the fly-tipping of garden waste which has formed dense piles of woody debris, providing good skink refugia in which incidental lizard observations were made. Long-tailed bats prefer to roost in larger, older, canopy trees with cavities, epiphytes, and loose bark. No such habitat is present on the subject site. The site pūriri is not considered to provide suitable roosting habitat. Any long-tailed bats present are therefore likely utilising the areas as temporary foraging. The sites' proximity to Kakamatua Stream and Huia Road mean the site has been assessed as moderate-high quality feeding habitat.

It is acknowledged that the proposed expansion of the Kakamatua Inlet Carpark has the potential to have adverse ecological effects. The proposed works will require up to 150 m^2 native kānuka, mahoe, kawakawa, tree fern, nīkau palm, and other regionally common tree species vegetation clearance and approximately 140 m^2 of earthworks, with associated noise, vibrations, and traffic movements.

Measures to address potential impacts will include minimising vegetation clearance, retaining trees where possible, and trimming vegetation rather than removing entire trees if appropriate. To preserve the character of the site, the pūriri will be retained and protected for the duration of the works. Tree protection measures, such as demarcating trees to be retained and avoiding earthworks in root zones where possible, will be implemented to reduce vegetation impacts. There is insufficient area available to replace the vegetation to be removed. As an alternative, it is recommended that a weed and pest animal control program is implemented to control exotic pest vegetation (such as bindweed and morning glory) in the site and surrounding area.

The Wildlife Act (1953) requires that wildlife protection and salvage actions are implemented, which would address potential effects to native fauna. Lizard search and salvage, and native nesting bird search are considered to be the most relevant wildlife protection measures to be implemented here.

For all land disturbing activities, there is the potential for sediment to be discharged offsite into the receiving environment. This potential effect would be addressed through the existing requirements (standard E11.6.2(2)) that industry best practice erosion and sediment controls are implemented.

Considering the measures proposed, the magnitude of effects has been considered as Low to Negligible using the Environment Institute of Australia and New Zealand (EIANZ) Ecological Impact Assessment guidelines (2018). Considering both the ecological values and the magnitude of impacts, the overall level of effect ranges from Moderate to Very Low. The level of effect of the proposed activities is the greatest for site herpetofauna values, and has been assessed as Moderate: requiring careful assessment and analysis of the individual case, which could be managed through avoidance, design, or extensive offset or compensation actions. In this case, minimising the project footprint, implementing lizard search and salvage, and release site lizard habitat enhancement is considered to address the potential impacts.

Overall, the effects of the proposed activities are considered here as Moderate - Very Low. It is recommended that standard vegetation clearance, lizard search and salvage, and nesting bird conditions are included in the resource consent to address the identified effects.

Contents

Figures

Tables

1. Introduction

1.1. Purpose & Scope

Morphum Environmental Limited was engaged by Auckland Council Community Facilities to prepare an Ecological Impact Assessment (EIA) to support a resource consent application for improvements to the existing Kakamatua Inlet carpark located on Huia Road, Huia (herein the subject site).

Kakamatua Inlet is a popular walking track and dog walking area in the Waitakere Ranges. The track follows the Kakamatua Stream through native kānuka scrub forest to the beach. There is an existing carpark set into native bush at the site. The existing carpark is not large enough to service the peak weekend number of visitors to the park, and as a result visitors frequently park on the Huia Road margin adjacent to the carpark. This poses a safety risk as there is no formal roadside parking or footpath on Huia Road, and is exacerbated by poor sightlines for the carpark.

To address this issue, it is proposed that the carpark is expanded, and parking bays are formalised to increase capacity, reducing the requirement for visitors to park on the road berm.

This assessment is based on the site plans "Kakamatua Inlet Carpark: angle parks option (26 std parks + 2 accessible parks)" dated 23rd February 2022, prepared by Stantec.

This report provides a summary of the current ecological values of the subject site that have been derived from a series of methodologies, including a site visit undertaken by a suitably qualified and experienced environmental scientist on 24th of March 2022, in a manner consistent with the EIANZ assessment framework. Standard methods have been used to identify potential impacts on the ecological values of the site and potential mitigation measures that may be implemented to reduce the effects of the proposed carpark expansion.

The scope of this EIA is limited to the proposed carpark expansion, and does not consider effects of the existing walking track. It is assumed that total traffic to the carpark and walking track will remain the same after the proposed works have been completed.

1.2. Site Overview

The subject site consists of an approximately 700 m^2 metalled carpark set into native kānuka scrub in the Waitakere Ranges, and a maximum of 150 m^2 of kānuka scrub to be cleared for the carpark expansion (Figure 1). The subject site is encompassed by the Waitakere Ranges Significant Ecological Area (SEA_T_5539), although only the margin of the existing carpark overlaps with the SEA overlay (Figure 1). The native kānuka scrub and mixed podocarp forest adjacent to the site has a high diversity of native species with a dense canopy as well as a healthy understory with high levels of natural recruitment. One of the characteristic features of the site is a large mature pūriri (*Vitex lucens*) overhanging the southern end of the carpark. Small numbers of exotic pest species, such as bindweed (*Convolvulus arvensis*) and black nightshade (*Solanum nigrum*), have become established on the carpark margin, and fly tipping of household and garden waste has also occurred.

Landcare Research Land Cover Database (LCDB) v5.0 (Landcare Research, 2022) classifies the land cover of the site (including the existing carpark and road) as Manuka and/or Kanuka. This land cover class is described as "scrub dominated by mānuka and/or kānuka, typically as a successional community in a reversion toward forest". The LCDB classification does not reflect the existing metalled carpark, a site-specific breakdown by area of current land cover classes has been provided in Table 1.

Table 1: Subject area land cover classes

Land Cover Class	Area (m^2)	Percentage of Site Area (%)	Description
Kānuka Scrub	150	18	Kānuka scrub with mixed natives
Carpark	700	82	Existing metalled carpark
Total	**850**	**100**	

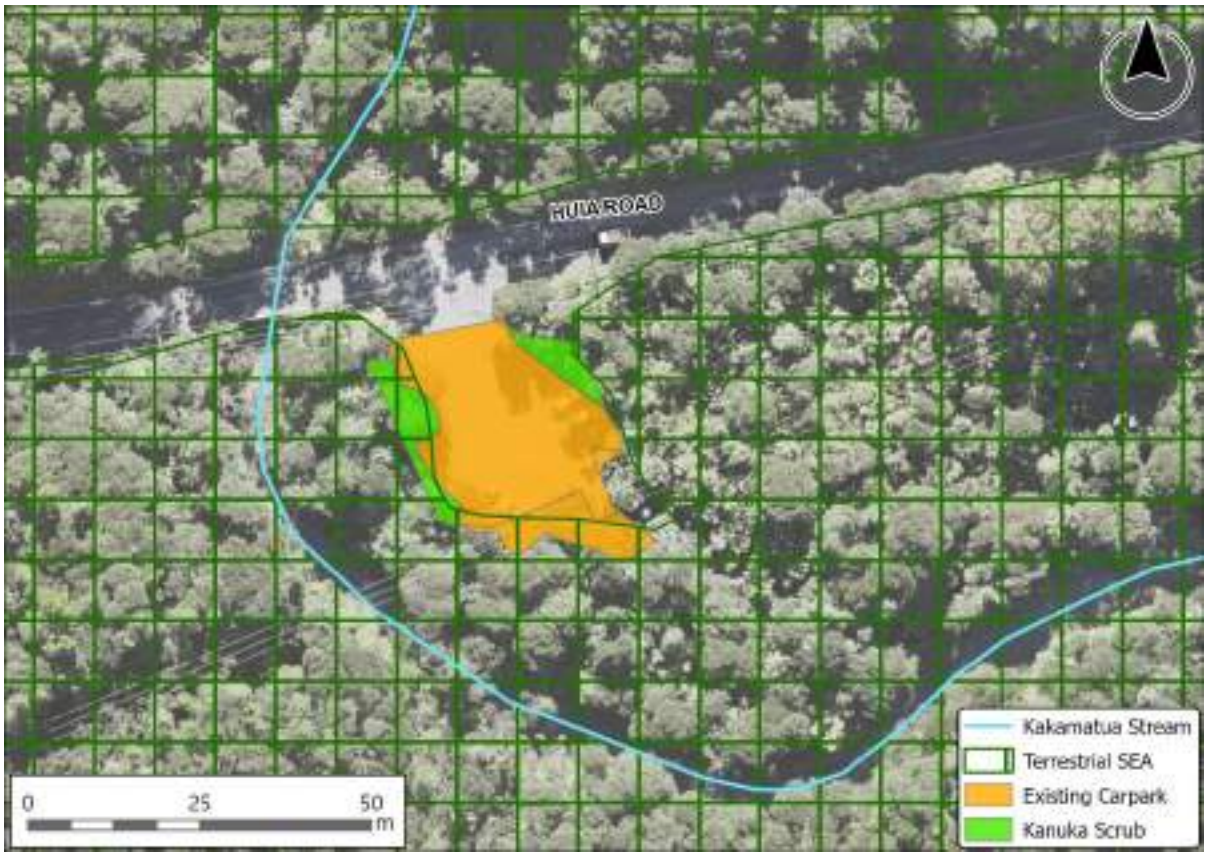

Figure 1: Site overview and existing land cover types. The Waitakere Ranges SEA (SEA_T_5539) encompasses the site.

The Kakamatua Stream flows on the west of the site, 20 m from the existing carpark, and is a permanent river with a catchment of approximately 530 ha. The entirety of the stream catchment consists of indigenous vegetation, with no urban or agricultural land upstream. The mean high water spring line and Kakamatua Inlet Marine SEA (SEA-M2-16b) is approximately 250 m downstream of the site. The stream was walked from Huia Road to Kakamatua Inlet, no wetlands or areas of potential wetlands were observed identified.

2. Current Ecological Values

A site walkover was undertaken on the 24th of March 2022. The site visit was undertaken by a suitably qualified and experienced Environmental Scientist in conjunction with the project Arborist (The Tree Consultancy, 2022). During this survey all vegetation types within the subject site were surveyed and fauna observations were recorded.

2.1. Ecological Context

The site is located within the Waitakere Ecological District (ED), a 29,157 ha area with altitude ranging from sea level to 474 m. Anthropogenic activities such as timber milling, quarrying, farming, and the construction of Auckland's water supply dams have historically modified a portion of the historic native forest extent. A substantial proportion (78%) of the Waitakere ED retains native vegetation (Lindsay et al. 2009). The Waitakere ED contains a high diversity of vegetation and wildlife in one of the two largest blocks of continuous vegetation in the Auckland region. Eight broad and 43 subgroups of vegetation classes have been described within the ED, including kauri forest, podocarp broadleaf forest, bluff and coastal edge vegetation and freshwater wetlands. The extent of kauri forest present in the ED has been greatly reduced due to logging of the larger trees and has been further impacted by kauri dieback disease.

The site is encompassed by the Waitakere Ranges Significant Ecological Area (SEA_T_5539), which overlaps the margin of the site. The large size of SEA_T_5539 (20,767 ha) means that the subject site represents only a very small proportion of the area covered by SEA_T_5539. SEA_T_5539 has been classified as an SEA for meeting all five assessment criteria: 1 – Representative Sites, 2 – Threatened Ecosystems, 3 – Diversity, 4 – Stepping Stones, Migration Pathways and Pathways, and 5 – Uniqueness or Distinctiveness.

The subject site is recorded as having a current ecosystem extent of WF11 - Kauri, podocarp, broadleaved forest (Singers et al. 2017), which has a regional IUCN threat status of Endangered. WF11 is a forest type with a wide range of canopy and sub-canopy species. The subject site is located within a stream gully and hosts the characteristic gully broadleaved trees species such as taraire (*Beilschmiedia tarairi*), tawa (*Beilschmiedia tawa*), tōwai (*Pterophylla sylvicola*), kohekohe (*Dysoxylum spectabile*), pūriri, northern rātā (*Metrosideros robusta*), pukatea (*Laurelia novae-zelandiae*), and rewarewa (*Knightia excelsa*). Kānuka (*Kunzea ericoides*) is the dominant canopy species at the site, indicative of the site's proximity to the coast and VS2 - Kānuka scrub/forest present to the east of the site. Nīkau palm (*Rhopalostylis sapida*) is also abundant at the site and nīkau juveniles comprise a substantial proportion of understory vegetation. The current vegetation is reflective of the WF11 habitat type.

Other than Huia Road there is negligible amount of land modification within a 1 km radius of the site.

Kakamatua Stream flows to the Kakamatua Inlet and Manukau Harbour, approximately 7 km from the Manukau Heads.

2.2. Vegetation

As with much of the Waitakere Ranges Regional Park, the site features a large proportion of native vegetation. Outside of the existing metalled carpark, vegetation consists of a diverse mixture of native species including kānuka, nīkau palm, mahoe (*Melicytus ramiflorus*), karamu (*coprosma robusta*), mamaku (*Sphaeropteris medullaris*), and kawakawa (*Piper excelsum*) among others. A single large pūriri (*Vitex lucens*) is a key feature of the site and is located at the southern end of the existing carpark, adjacent to the start of the Kakamatua Inlet walking track (Figure 2). No kauri (*Agathis australis*) were observed within or adjacent to the site.

The immediate margin of the carpark is characterised by a higher proportion of exotic species and would be subject to an increased level of 'edge effects'. Exotic pasture grasses and other exotic herbaceous plants line the edge of the carpark where there is reduced canopy shading. Several large flax (*Phormium tenax*) are present on the western boundary of the carpark. Native vegetation on the boundary of the carpark is typically in poorer condition than that deeper in the bush, with dead / failing branches observed on several kanuka and mahoe. Small areas (<5 m^2) of invasive bindweed (*Convolvulus arvensis*) and black nightshade (*Solanum nigrum*) have become established on the margins of the site and will expand into the adjacent native forest if left unchecked.

A single approximately 8 m tall oak (*Quercus sp.*) is located to the east of the carpark, outside of the immediate subject site area. The tree is currently juvenile, but will become the keystone species and shade out native canopy vegetation when it reaches maturity.

Representative photos of the subject site have been provided in Figure 3.

Figure 2: A single large pūriri is a key feature of the Kakamatua Inlet Carpark.

Figure 3: Indicative site photographs: Clockwise from top left; View of the carpark with the pūriri in the background. View from the entrance of the carpark to the west along Huia Road. Dense understory vegetation with abundant juvenile nīkau. Black nightshade on the carpark border.

Table 2: Assessment of current terrestrial vegetation values

Assessment Matter	Ecological Value (EIANZ, 2018)	Reasoning
Representativeness	**High**	The bulk of the site is an existing metalled carpark, however, the native vegetation bordering the carpark is a diverse community representative of the historic vegetation. There are a low number of invasive species present on the site margin.
Rarity/distinctiveness	**High**	The site represents a relatively small proportion of wider Waitakere Ranges Regional Park; however, the WF11 forest type has a regional IUCN threat status of 'Endangered'.
Diversity and pattern	**High**	The native forest at the site has a highly diverse vegetation community with a range of canopy and understory species, as well as high levels of natural recruitment.
Ecological context	**High**	The subject site is part of regionally significant forest remnant, and the diverse vegetation community present provides a range of ecological functions including habitat provision, and feeding opportunities.

Overall, the ecological value of the site vegetation has been described as **Very-High**.

2.3. Avifauna

The subject site supports a diverse vegetation community which in turn support an equally diverse range of native bird species. Given the small area of the subject site, relative to the wider Waitakere Ranges with a known population of endangered species; no formal avifauna surveys were undertaken. During the site visit a number of native bird species were observed including tui (*Prosthemadera novaeseelandiae*), grey warbler (*Gerygone igata*), and New Zealand fantail (*Rhipidura fuliginosa*) (Table 3).

The citizen science platforms eBird and iNaturalist were searched for more detailed records. Kererū (*Hemiphaga novaeseelandiae*) and North Island Tomtit (*Petroica macrocephala ssp. toitoi*) were recorded on the Kakamatua Inlet track, in addition to numerous seabird sightings along the coast.

The wider Waitakere Ranges are known to support a wide range of native bird species including threatened species such as the nationally vulnerable stitchbird (*Notiomystis cincta*) (SEA_T_5539 info sheet, Robertson et al. 2021). Such species could potentially utilise the vegetation on the subject site for habitat, as it provides foraging opportunities and connectivity across the wider landscape.

Due to the extent of available bird habitat and known populations of native birds, including nationally vulnerable species, in the Waitakere Ranges the current ecological value of the site has been conservatively assessed as **High**.

Table 3: Bird species observed on site and recorded in online databases.

Common name	Scientific name	Threat Status (Robertson *et al.* 2021)
Grey Warbler	*Gerygone igata*	Not Threatened
Kererū*	*Hemiphaga novaeseelandiae*	Not Threatened
North Island Tomtit*	*Petroica macrocephala ssp. toitoi*	Not Threatened
Tui	*Prosthemadera novaeseelandiae*	Not Threatened
New Zealand Fantail	*Rhipidura fuliginosa*	Not Threatened

*iNaturalist observations are marked with an **

2.4. Herpetofauna

Given the small area of the subject site, relative to the wider Waitakere Ranges, and known populations of native lizards in the Waitakere Ranges, for the purpose of this assessment a conservative assumption is that threatened species may be present within the site. As such, lizards were not systematically surveyed during the site visit. However, incidental observations noted the presence of the exotic plague skink (*Lampropholis delicata*). Given the abundance of lizard habitat within the subject site and known populations of native lizards in the Waitakere Ranges, it is considered that there is a high likelihood of native herpetofauna presence.

The carpark itself has no value as native lizard habitat, however the native forest bordering the carpark has excellent habitat for both ground dwelling skinks and arboreal geckos. Skinks live amongst dense, complex ground cover such as leaf litter, fallen fern or palm fronds, woody debris, and low growing vegetation such as flax or bindweed mats. All of which are present along the border of the carpark. Further skink habitat has been created via the fly-tipping of garden waste into the forest edge (Figure 4). These piles of garden waste represent high quality skink habitat, and are where the incidental skink observations were made. Geckos live in dense native canopy vegetation such as kanuka, which is the main canopy species at the subject site.

It is probable that 'At Risk - Declining' species such as copper skink (*Oligosoma aeneum*), elegant gecko (*Naultinus elegans*), and forest gecko (*Mokopirirakau granulatus*) are present at the subject site. Due to the threat status of these species, the current herpetofauna value of the site has been assessed as **Very High**.

Figure 4: Fly-tipping of garden waste has created high-quality skink habitat in the form of large woody debris piles. Several plague skinks were observed in the debris pile pictured

2.5. Bats

Given the small area of the subject site, relative to the wider Waitakere Ranges and known populations of the native long-tailed bat (*Chalinolobus tuberculatus)* in the Waitakere Ranges, a detailed bat survey was not undertaken.

Long-tailed bats prefer to roost in larger, older, canopy trees with cavities, epiphytes, and loose bark. No such habitat is present on the subject site. Although pūriri are known to provide roosting habitat, the site pūriri is not considered to represent suitable roosting habitat due to its proximity to the carpark and ongoing noise disturbance. Any long-tailed bats present are therefore likely utilising the areas as temporary foraging. Long-tailed bats feed on the wing, utilising waterways and forest-edge as foraging grounds and movement corridors where invertebrate life is likely to be more abundant. The sites proximity to Kakamatua Stream and Huia Road mean the site has been assessed as moderate-high quality feeding habitat.

Short-tailed bats prefer deep-forest habitat and are associated with old growth indigenous forest. The only known population of short-tailed bats known to the Auckland Region is found on Little Barrier Island. As such their presence within the subject site is considered extremely unlikely.

Due to the 'Threatened – Nationally Critical' threat status of long-tailed bats (O'Donnell et al. 2017), the current bat value of the site has been assessed as **High**.

2.6. Freshwater Values

No streams are present within the immediate subject site, however the Kakamatua Stream flows roughly 20 m to the west of the site. No wetlands (or areas of potential wetland) were identified within 100 m of the site.

Where it flows past the subject site, the Kakamatua Stream is a large (8-10 m width) permanent river with a catchment of approximately 530 ha (Figure 5). The stream has high freshwater habitat values, with extensive riparian vegetation, overhead cover, and instream habitat. The entirety of the stream catchment consists of indigenous vegetation, with no urban or agricultural land upstream. The New Zealand Freshwater Fish Database (NZFFD) includes historic records of 'Threatened – At Risk' longfin eel (*Anguilla dieffenbachii*) and 'Threatened – Naturally Uncommon' giant bully (*Gobiomorphus gobioides*) in the Kakamatua Stream (Dunn et al. 2017). It is noted that these records are from 2001, but given the lack of modification in the catchment, it is probable these species are still present.

Due to the quality of the freshwater habitat present, pristine catchment, and threat status of fish species that have been recorded in the stream, the current freshwater habitat value of the site has been assessed as **High**.

Figure 5: The Kakamatua Stream has excellent freshwater habitat values and a pristine, forested catchment.

2.7. Pest Animals

No pest animals were noted on site. It is considered likely that, at a minimum, brushtail possum (Trichosurus vulpecula), rats (*Rattus rattus*, *Rattus norvegicus, Rattus exulans*) and mice (*Mus musculus*) are present.

2.8. Summary of Ecological Values

The current ecological values of the site have been described based on on-site observations in conjunction with a review of the available literature and databases. The low level of modification of the habitat adjacent to the carpark means that the potential habitat values are comparable to the current ecological values. A summary of this information is presented in Table 4 based on the EIANZ 2018 Ecological Impact Assessment guidelines set out in Appendix 3. Onsite fauna observations were limited to common species. Due to the high quality and extent of native habitat present, particularly on the border of the site, a conservative assessment that threatened species are present has been made.

Table 4: Summary of subject site ecological values

Impact	Ecological Value (EIANZ, 2018)	Reasoning
Vegetation	**Very High**	Area rates High for all assessment matters (Representativeness, Rarity/distinctiveness, Diversity and pattern, Ecological context). Vegetation is comprised of diverse native forest with a dense canopy and understory.
Avifauna	**High**	Field observations limited to common native species. However, there is high quality bird habitat present, and the Waitakere Ranges are known to support a wide range of native birds including nationally vulnerable species.
Herpetofauna	**Very High**	Abundant high-quality skink and gecko habitat present within the site. Conservative assessment that "At Risk – Declining' species are present.
Bats	**High**	There is no suitable bat roosting habitat present within the site, but it is likely that 'Threatened – Nationally Critical' long-trailed bats may intermittently use the site for feeding.
Freshwater Values	**High**	The Kakamatua Stream has excellent freshwater habitat values with a pristine catchment. Historic records of threatened fish species presence.

Overall, the subject area is considered to have **High** ecological values.

3. Proposed Activities and Potential Effects

This EIA has been prepared to support the lodgement of a Resource Consent application for expansion and formalisation of an existing carpark on Huia Road, Huia.

This assessment is based on the site plans "Kakamatua Inlet Carpark: angle parks option (26 std parks + 2 accessible parks)" dated 23rd February 2022, prepared by Stantec.

The existing 700 m^2 metalled carpark will be expanded to approximately 840 m^2 in size with 28 carparks. Carparks will be painted to formalise spaces and maximise space utilisation.

It is acknowledged that the proposed works have potential adverse ecological effects. The types of activities considered to likely be required in the construction and operation of the car park include:

- Earthworks and vegetation clearance to facilitate site development.
- Increase in impervious surfaces.
- Continued vehicular and pedestrian traffic.

3.1. Construction Activities

3.1.1. Land Disturbance

The extent of land disturbance will be minimised by building on top of the existing metalled carpark where possible, however, an area of approximately 140 m^2 of earthworks will be required for the proposed carpark footprint.

Earthworks and construction activities would involve the use of machinery and traffic that will generate dust, noise, and vibrations for the duration of construction. Dust, noise, and vibrations may reduce the habitat quality for any species present and lead to their avoidance of the area.

The extent of native vegetation present means that some excavation will occur within the root zone of trees that will be retained. There is a risk that these roots may become damaged during earthworks.

For all land disturbance activities, there is a risk of uncontrolled sediment discharge to the receiving environment. Sediment is a contaminant as defined in the Resource Management Act (RMA) and has the potential to cause a range of adverse effects in the receiving environment including smothering of benthic habitat, direct mortality of native freshwater fish through asphyxiation from clogged gills, and changes to water quality, including physio-chemical indicators pH and clarity.

Sediment related effects would not only occur within the subject site but could accumulate in the wider receiving environment, including Kakamatua Stream.

3.1.2. Vegetation Clearance

It is anticipated that a maximum of 150 m^2 of native kānuka, mahoe, kawakawa, tree fern, nīkau palm, and other regionally common tree species will be cleared to facilitate the proposed car park expansion, including the understory of juvenile nīkau and tree ferns. Vegetation clearance will be minimised, and effort will be made to retain as many trees as possible, trimming vegetation rather than removing entire trees if appropriate. The feature pūriri tree will be retained and protected for the duration of works.

The Tree Consultancy (2022) note that the vegetation clearance equates to approximately 440 m^2 of canopy cover. This figure is a conservative maximum, referencing canopy coverage and all trees within 1 m of the carpark edge and also includes a number of trees outside of the SEA.

This area represents a moderate change in immediate site character, but is considered to be a negligible change on a landscape scale and overall, a low effect on vegetation values.

Vegetation clearance could potentially generate moderate-high adverse environmental effects on fauna values given the species present and ecological value as assessed in Section 2. Vegetation clearance could result in the direct mortality of individuals, loss of habitat or feeding opportunities, displacement of nesting sites, and potentially impacting reproductive success. The native vegetation present provides habitat for a range of native species, and as such vegetation removal may affect the fauna that potentially utilise this area as foraging and habitat.

3.2. Operational Activities

3.2.1. Traffic and Noise

Traffic can create a range of anthropogenic disturbances such as movement, noise, and light disturbance. For the purpose of this assessment, it is assumed that the total traffic to the site will remain unchanged, with any differencing being that cars previously parking on the street will instead park in the carpark with same volume to track.

The ongoing operational of the carpark may generate noise disturbance. Anthropogenic disturbances may reduce the quality of any adjacent vegetation as habitat for any native species, reducing habitat quality through the determent of nesting sites and foraging, potentially impacting reproductive success.

As the existing carpark has been operating for a number of years the expansion of the carpark represents no change to the current traffic and noise effects of carpark operation.

3.2.2. Increase in Impervious Surfaces

An increase in impervious coverage, could potentially alter catchment hydrology. Changes in hydrology can have adverse effect on streams within the catchment, including accelerating river and stream erosion and bank instability, that generate sediment that can accumulate in the receiving environment.

The expansion of the existing carpark would result in an increase in site impervious surfaces from 700 m^2 to 840 m^2. Given the small portion of the Kakamatua Stream catchment impacted, this is increase is considered to be negligible.

The carpark surface used, likely to be screen aggregate will be clean and inert to prevent any contaminant generation from the car park surface. The retained riparian vegetation buffer will filter sheet runoff contaminants and further reduce the risk of contaminants reaching the receiving environment.

3.2.3. Positive Effects

The extent of existing native forest in the Kakamatua Stream catchment means that there are limited areas available for vegetation replanting. It may be possible to plant a small area of low growing vegetation (such as flax) near the entrance to the Kakamatua Inlet Track. A weed and pest animal control program to control exotic pest vegetation (such as bindweed and morning glory) in the site and surrounding area will be implemented to maintain existing high ecological values in the vicinity of the car park.

4. Ecological Impact Assessment

The current ecological values of the site have been described based on in-field observations in conjunction with a review of the available literature and databases as set out in Section 2 of this report. The likely activities have been described and set out in Section 3. This section utilises the findings of Sections 2 and 3 to provide an assessment of the ecological effects based on the EIANZ guidelines (EIANZ 2018).

4.1. The Wildlife Act 1953

The Wildlife Act (1953) absolutely protects all native lizards, bats, and birds (unless listed as a in Schedule 5). Consequently, a permit under the Wildlife Act would be require for any (potential) harm to these species.

4.2. Summary of Ecological Impact Assessment

The current ecological values of the areas that would be impacted by the likely activities are summarised and assessed in Table 5 below. Table 5 provides an interpretation of effects, assuming ecologically threatened species are temporarily present on site. Magnitude is determined by a combination of scale (temporal and spatial) of the effect and degree of change that will be caused in or to, the ecological component and is assessed here with the relevant planning provisions forming a baseline.

Table 5: Assessment of Level of Effect of the proposed activities

Impact	Ecological Value (EIANZ, 2018)	Magnitude of Effect and Reasoning	Level of Effect	Mitigation Measures and Magnitude after Mitigation	Level of effect with mitigation
Vegetation	**Very High**	**Low** – High value native vegetation will be lost as part of the proposed activities, however the extent of vegetation that will be lost represents a negligible impact at a landscape scale.	**Moderate**	Vegetation clearance will be minimised, and effort will be made to retain as many trees as possible, trimming vegetation rather than removing entire trees if appropriate. Tree protection measures, such as demarcating trees to be retained and avoiding earthworks within the root zone will reduce the risk of damaging trees to be retained. Phytosanitary protocols are required to prevent the spread of kauri dieback disease to and from the site using a blanket approach to all works. Full details are provided in the Arborist Report (The Tree Consultancy, 2022), and once implemented would reduce the magnitude of effect to **negligible** in the wider catchment scale**.** A weed and pest animal control programme will be implemented to mitigate vegetation loss and retain the sites high ecological values.	**Very Low**
Avifauna	**High**	**Low** – minor shift away from baseline condition given the wide spatial extent of similar habitat (native forest) in the immediate surrounds. At a species level, any changes would likely be to common species and be subject to the provisions of the Wildlife Act.	**Low**	Native birds may nest in trees to be removed. If any vegetation clearance occurs within the bird breeding season (September to February inclusive), then trees to be removed must be searched (by a suitably qualified ecologist) for native nesting birds prior to being felled. If native nesting birds are located, a 10 m area around the tree will be cordoned off and no works will occur within until the chicks have fledged. A nesting bird search would reduce the magnitude of effect to **negligible.**	**Very Low**

Impact	Ecological Value (EIANZ, 2018)	Magnitude of Effect and Reasoning	Level of Effect	Mitigation Measures and Magnitude after Mitigation	Level of effect with mitigation
Herpetofauna	**Very High**	**Moderate** - loss of a moderate proportion of the known population or range. High quality native lizard habitat is present within the site, but represents a small portion of the total lizard habitat present in the Waitakere Ranges. Although no specific lizard survey was undertaken, a conservative approach that threatened species are present has been taken. There is a risk that any lizards within the works footprint will be injured or killed during vegetation clearance and earthworks.	**High**	Lizard search and salvage (by a suitably qualified and certified herpetologist) will be implemented to mitigate any potential risk to native lizards. All ground cover (i.e., woody debris, groundcover vegetation) must be searched for lizards prior to vegetation clearance. Vegetation to be removed will not be mulched but instead searched by a herpetologist as it is felled and cut into manageable lengths to be retained on site. Any native lizards located during vegetation clearance will be relocated to nearby high-quality lizard habitat. Retained vegetation will be moved to the release site and stacked into piles to enhance release site lizard habitat values. If standard lizard search and salvage conditions were placed on the consent and appropriately implemented, then the magnitude of effect would be reduced to **low**.	**Moderate**
Bats	**High**	**Low** – minor shift away from baseline condition given the absence of suitable roosting habitat present within the subject site bats are considered to be only transiently present for feeding. The proposed activities will not result in any noticeable change in bat foraging opportunities or movement pathways.	**Low**	Bats are nocturnal animals and roost during daylight hours. By limiting construction activities to daylight hours, the magnitude of effect of noise and light disturbance on bats can be reduced to **negligible**.	**Very Low**
Freshwater Values	**High**	**Low** - minor change from the existing baseline condition. There is a risk of uncontrolled sediment discharge to the receiving environment as a result of the earthworks required for the proposed activities.	**Low**	Best practice erosion and sediment control measures will be implemented for the duration of works, and the carpark will be designed with feathered edges so that stormwater runoff is diffuse. Mitigating sediment discharges will reduce the magnitude of effect to **negligible.**	**Very Low**

5. Conclusions and Recommendations

It is acknowledged that the proposed expansion of the Kakamatua Inlet Carpark has the potential to have adverse ecological effects. After mitigation, the magnitude of these effects has been considered as Low to Negligible using the EIANZ Ecological Impact Assessment guidelines. Considering both the ecological values and the magnitude of impacts, the overall level of effect ranges from Moderate to Very Low.

The level of effect on herpetofauna has been assessed as Moderate. From the EIANZ guidelines a level of effect of Moderate: requiring careful assessment and analysis of the individual case, which could be managed through avoidance, design, or extensive offset or compensation actions.

The level of effect on vegetation, avifauna, bats, and freshwater values has been assessed as Very Low. EIANZ guidelines describe Low to Very Low-level effects as "not normally of concern", although normal design, construction and operational care should be exercised to minimise adverse effects.

The expansion of the carpark would require vegetation clearance and land disturbance activities with associated dust, noise, vibrations, and traffic movements. Given the extent of adjacent habitat present and values associated with the vegetation identified in this report the level of effect for any vegetation clearance would be Very Low. The provisions of the Wildlife Act will also remain in effect to ensure that any loss of habitat for native avifauna, lizards and bats is appropriately managed. For all land disturbance activities, such as building demolition and construction, there is the potential for sediment to be discharged from the site to the receiving environment; this would be addressed through the existing requirement for industry best practice erosion and sediment controls during any land disturbance. The redevelopment of the site will result in a minor increase in impervious coverage. The potential effects of changes to the quantity and quality of stormwater discharged from the site would be mitigated by implementing appropriate erosion and sediment control, feathered carpark edge, and existing riparian vegetation.

Overall, the effects of the proposed activities are considered here as Moderate - Very Low. It is recommended that standard vegetation clearance, lizard search and salvage, and nesting bird conditions (Appendix 2) are included in the resource consent to address the identified effects.

6. References

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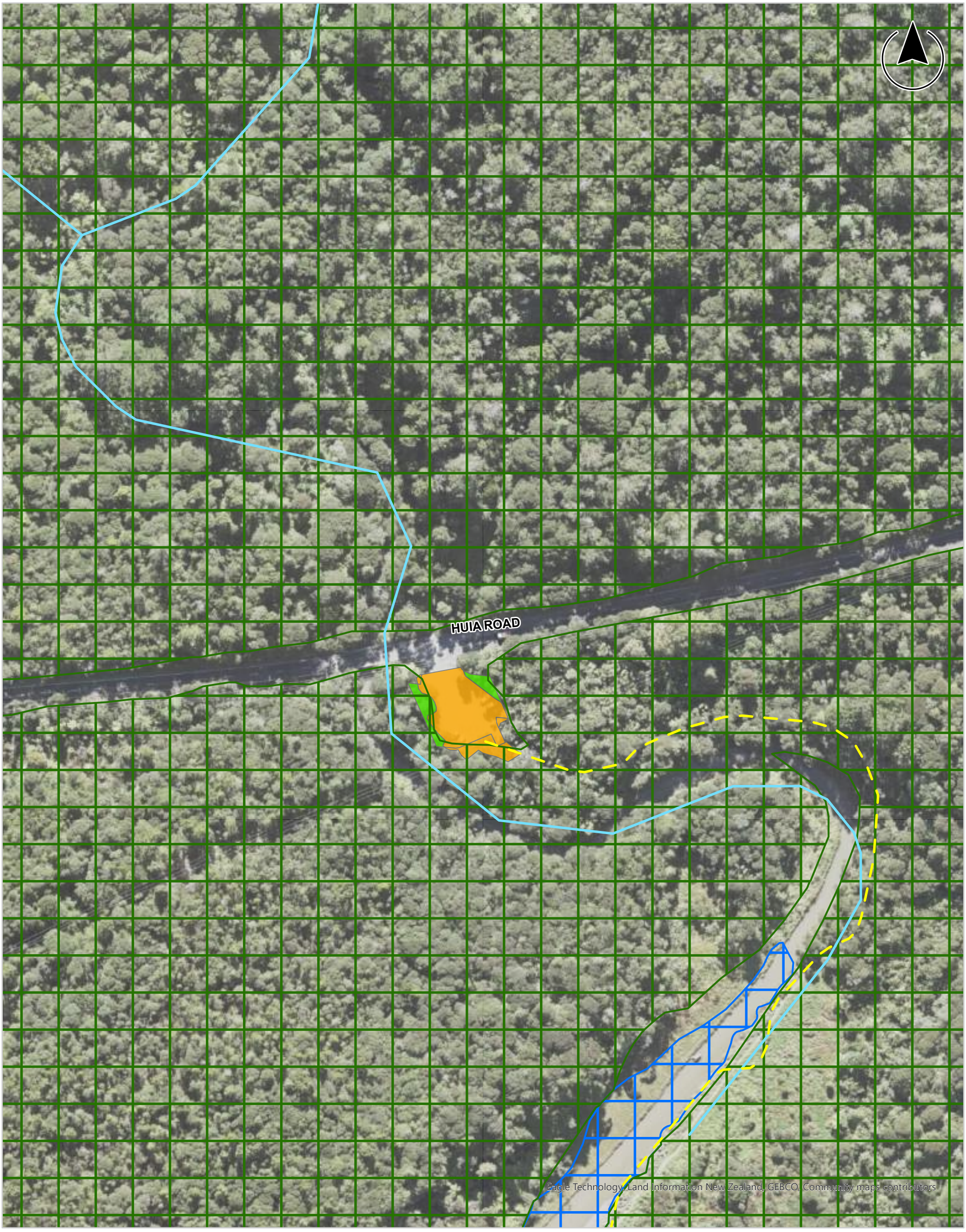
Appendix 1 Site Map

KAKAMATUA CARPARK EIA - SITE LANDSCAPE CONTEXT

MORPHUM environmental



Z:\Projects\Councils\Auckland Council\P03550 Kakamatua Carpark EIA\GIS\ArcPro\P03550 Kakamatua Carpark Layout: A3_Kakamatua

NZ Topo 50 Streams
Kakamatua Inlet Track
Marine 2 SEA
Terrestrial SEA
Existing Carpark
Kanuka Scrub

Client AUCKLAND COUNCIL

PROJECT **KAKAMATUA CARPARK EIA**

0 50 100 m

Project no. P03550
Date 19 Apr 2022

Drawn DB
Approved CU

Appendix 2 Recommended Ecology Conditions

Pest Plan and Animal Management

- Prior to the commencement of any vegetation removal works, the consent holder must submit a Pest Plant and Animal Management Plan (PPAMP), that describes the weed control and pest animal management actions that will be undertaken. The PPAMP will include details on the method and timings on control actions to be implemented.

Protection of Herpetofauna

- Prior to the commencement of any vegetation removal works, the consent holder must employ a suitably qualified and experienced ecologist/herpetologist approved to oversee and undertake the full implementation of the Lizard Management Plan (LMP).

Protection of Nesting Birds

- All vegetation removal should occur outside the main native bird nesting season (September - February, inclusive) to minimise any disturbance risk that vegetation removal would have on nesting birds. If vegetation clearance is unavoidable during the main native bird nesting season, an approved and experienced ecologist must visually observe and inspect all trees and shrubs proposed for removal within 48 hours prior felling to identify any active nests. This includes checking cavities and hollows for nesting birds.
- Should any nesting be identified, a 10 m buffer of vegetation must be required to remain around the nest site until the ecologist has confirmed that the nest has naturally failed, or the chicks have hatched and naturally fledged the natal site.

Appendix 3 EIANZ Assessment Methodology

Table 6: Assigning value to species, vegetation, and habitats (summarised from EIANZ, 2018)

Value	Species Values	Vegetation/Habitat Values
Very High	Nationally threatened species found in the (Zone of Influence) ZOI[1] either permanently or seasonally	Area rates High for 3 or four attributes (Representativeness, Rarity/distinctiveness, Diversity and pattern, Ecological context). Likely to be national important and recognised as such
High	Species listed as At Risk – Declining, found in the ZOI either permanently or seasonally	Area rates High for 2 of the attributes, Moderate and Low for the remainder, or Area rates High for 1 assessment matters, Moderate for the remainder Likely to be regionally important and recognised as such
Moderate	Species listed as any other category of At Risk, found in the ZOI either permanently or seasonally, or Locally (ED) uncommon or distinctive species	Area rates High for 1 assessment matters, Moderate and Low for the remainder, or Area rates Moderate for 2 or more of the attributes, Low or Very Low for the remainder Likely to be important at the level of the Ecological District
Low	Nationally and locally common indigenous species	Area rates Low or Very Low for majority of assessment matters and Moderate for 1 Limited ecological value other than as for habitat for tolerant native species
Negligible	Exotic species, including pest species having recreational value	Area rates Very Low for 3 matters and Moderate, Low or Very Low for remainder

[1] The Zone of Influence (ZOI) refers to all land, water bodies and receiving environments that could be potentially impacted by the project.

Table 7: Criteria for describing magnitude of effect (summarised from EIANZ, 2018)

Magnitude	Description
Very High	Total loss of or major alteration to key features of the baseline condition causing a fundamental change or complete loss of the character, composition, or attributes of the site.
High	Major loss or major alteration to key features of the baseline condition causing a fundamental change of the character, composition, or attributes of the site.
Moderate	Loss or alteration of one or more key features of the baseline condition causing a partial change to the character, composition, or attributes of the site.
Low	Minor shift away from baseline conditions. Change may be discernible, but underling character, composition, or attributes of the site will be similar to pre-development.
Negligible	Very slight change from existing baseline condition. Change barely distinguishable.

Table 8: Criteria for describing level of effects (from EIANZ, 2018)

Ecological Value / Magnitude	Very High	High	Moderate	Low	Negligible
Very High	Very High	Very High	High	Moderate	Low
High	Very High	Very High	Moderate	Low	Very Low
Moderate	High	High	Moderate	Very Low	Very Low
Low	Moderate	Low	Low	Very Low	Very Low
Negligible	Low	Very Low	Very Low	Very Low	Very Low
Positive	Net gain	Net gain	Net gain	Net gain	Net gain

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Arboricultural Assessment of Effects

At
Kakamatua Inlet Car Park

on
Car park upgrades

Prepared for	**Greer Clark** Auckland Council	**Prepared by**	**Ian Lawson** Urban forest and tree consultant
		Date	8 June 2022
		Job ref #	2347
		Reviewed by	Andrew Benson

Table of contents

1. Instructions

1.1 Auckland Council proposes to carry out an extension and upgrade of Kakamatua Inlet Car Park, Huia Road, Parau. The Tree Consultancy Company has been engaged by Greer Clark of Auckland Council to provide an arboricultural assessment of the proposal as this relates to public trees and protected vegetation. The scope of services is as follows.

- Review the information provided, carry out a site visit and ground-based visual tree inspection
- Liaise with the project team around arboricultural limitations. Assist with design solutions
- Prepare an arboricultural assessment detailing our findings and any mitigating measures available
- Prepare and submit an application for Tree Owner Approval (a requirement for the project)

2. Statutory context

2.1 The following rules apply to this assessment.

E15 - Vegetation management and biodiversity
E15.4.1
(A12) Vegetation alteration or removal of any vegetation within a Natural Stream Management Areas Overlay

E26 - Infrastructure
E26.3.3.1
(A77) Vegetation alteration or removal that does not comply with Standards E26.3.5.1 to E26.3.5.4

2.2 The following overlays relevant to the protection of vegetation apply at the site:

- Natural Stream Management Areas Overlay
- Outstanding Natural Landscapes Overlay - Area 73, Waitakere Ranges and coastline
- High Natural Character Overlay - AREA 41, Cornwallis
- Waitakere Ranges Heritage Area Overlay
- Historic Heritage Overlay Extent of Place - 1, Roe's/Cornwallis Mill R11_119, R11_1088, R11_1064

3. Site description and proposed activities

3.1 The subject site is an existing car park on the southern side of Huia Road, adjacent to the Kakamatua Stream. The current car park is an informal metalled area that meanders in and out of the surrounding vegetation. Vegetation surrounding the car park is a mixture of mature kānuka canopy, mature nīkau and tī kōuka, and a wide-ranging mix of mature understorey trees and vegetation. One mature pūriri grows at the southern edge of the car park and is a prominent feature at the entrance of the Kakamatua Beach walkway, a metaled bush track.

3.2 It is proposed to increase the car park size and formalise the surface and parking layout. For the existing car park (type 1, Figure 1) the construction comprises blending the existing 55 mm of metal with the addition of 180 mm into a cement-modified stabilised sub-base, a 100 mm base course and 50 mm thick asphalt. The new areas (type 2, Figure 1) require a dig-out of to remove any surface vegetation and tree stumps, 235 mm of new cement modified sub-base, then the same 100 mm basecourse and 50 mm asphalt. At the periphery of the car park and transition with Huia Road, a 300 mm x 300 mm reinforced concrete edge beam is included. Along the eastern and western parking bays, this will have timber wheel stops bolted into it. A 1.8 m-wide apron of imported topsoil seeded with grass is proposed around the edge of the new surfaces spreading outwards into the surrounding bush vegetation. A span of 15 m of the Kakamatua Beach walkway track will be graded to match the level of the new car park edge of seal.

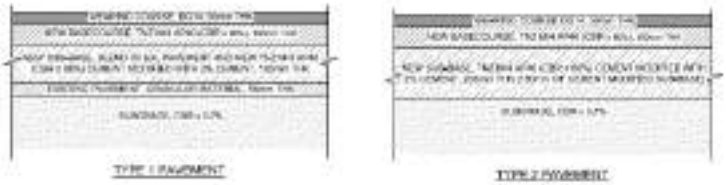

Figure 1. Pavement construction details

3.3 I have been provided with the following reports and site drawings, which have been used in this assessment of effects:

- Stantec – DRAFT design drawings (21/02/2022)
- Morphum – DRAFT Ecological Impact Assessment P03550 – (21/04/2022)
- Stantec – Pavement design memo 310203692 – (10/5/2022)
- Stantec – Detained design (11/5/2022)
- Harrison Grierson – Topographical site plan 144769-SC101 (12/2/2019)

4. Site assessment

4.1 I visited the site on the 23rd of March 2022 to carry out a site walkover with the project ecologist, Dave Brockerhoff of Morphum. We undertook a survey of the trees and vegetation in and around the site based on the draft drawings. The detailed design and site layout differ slightly from the draft drawings. I recorded species information, estimated tree heights and measured trunk circumferences and crown diameters (using a tape measure). I also made qualitative observations of tree condition (form, structure, and vitality) and quantitative estimates of live foliage volume, which can provide a useful indicator of tree vitality. The tree survey is by no means exhaustive, rather concentrates on the prominent and mature trees around the car park.

4.2 I used the topographic plan supplied to me by the project team and overlaid this into a GIS plan to locate the trees within the site using a combination of the topographic tree locations and proximity to the edges of the existing seal. Using the trunk diameters, I have projected structural root zones (Coder, 1996) and a tree protection zone (Benson, 2019) around each trunk position. Monocotyledonous species (nīkau/tī kōuka) do not have woody structural roots, so structural zones are not shown for these trees. The trees and their tree protection zones (TPZ) are depicted on the appended site drawing (2347_001_A) in Appendix C and listed with attributes in the tree inventory in Appendix D.

5. Summary of tree details

5.1 The existing metal car park area meanders in and out of the existing vegetation, which comprises mainly mature kānuka and nīkau, with a few mature tī kōuka. There is a mixed understorey that includes māhoe, karamū, nīkau and harakeke. At the southern edge of the car park is a single mature pūriri (tree 1), which is a prominent feature located beneath powerlines. At the northeast of the car park is a single semi-mature English oak (tree 9) emerging from the canopy that will form a dominant canopy in time. I would not expect to see this species of tree naturally occurring in this setting. All of the trees noted were of generally good vitality with unaltered forms.

6. Arboricultural assessment of effects

6.1 In extending the car park, a number of trees and vegetation will require removal from directly within the footprint. Excavation to modify the existing metal and to remove ground cover vegetation, stumps, and leaf litter from the new areas will be within the TPZ of further trees within the surrounding bush. The edge beam will constitute a linear severance of all roots within the top 300-400 mm of soil around the periphery of the site. The proposed topsoil and grass batter beyond the edge beam will bury the trunk

collars of all trees within their extent and cover any seedlings. Therefore, the works will impact vegetation beyond the extent of works, particularly where the TPZ of surrounding trees not individually assessed during my site visit are altered. These will be impacted by mechanical severance of roots and a reduction in the permeable root zone, and potentially wherever cement modification of the subbase is able to come into contact with roots. Pouring the edge beam concrete directly against bare earth will come into contact with exposed roots from the nearby vegetation.

6.2 The current metal surface allows the permeation of water into the soil beneath and is available to the surrounding trees. In changing to an impermeable asphalt surface, the natural permeation of rainwater into the soil will be altered. Stormwater is intended to run off the surface at the edges, which should continue to provide rainwater to the surrounding areas. If the surface is not laid evenly or becomes rutted, then the water could be channelled into a few locations. This has the potential to cause scouring and localised waterlogging. It is important that any low points are shaped so that this cannot occur close to the remaining canopy trees.

6.3 The pūriri (tree 1) will be impacted by the removal of the existing metal and the edge beam construction and is likely to require some minor crown reduction along the northern aspect for clearance as cars will be directed up to the southern edge around a new central row of spaces. Overhead clearance pruning to crown lift the canopy can be achieved by reducing high order branches, and will account for no more than 10% of the live foliage. The area of TPZ being lost to asphalt is 12% with the edge beam being installed 4.8 m from the trunk (9.5 x DBH). I expect a few coarse roots to be present at the edge beam, but generally the surface here is well compacted, and I anticipate that the tree will be utilising the uncompacted open bush areas for the majority of its root functions. Overall, the cumulative effects of root severance at 9.5 x DBH and no more than 10% live foliage reduction pruning would be a temporary reduction in water availability and photosynthetic capability, that would be recoverable within one or two growing seasons. The removal of the metal beyond the edge beam, including within the structural root zone has far more potential to cause long term damage to the tree, and for this reason, it should be left in situ. If wholesale removal of the metal is undertaken there is potential for underlying structural roots to be damaged or become exposed. Incidental root loss would almost certainly occur where the metal has become mixed with soil.

6.4 Trees 2 (kānuka), 3, and 4 (tī kōuka) could be impacted by the grading of metal on the footpath if it is not undertaken with care and arboricultural direction. Trees 2 and 3 abut the path. The existing footprint should be utilised here and pegged timber edging added on top of the existing metal if needed, rather than disturbing any of the existing metal. Dynamic input from a supervising works arborist will be required.

6.5 Trees 5 (nīkau), 6 and 7 (tī kōuka) will be impacted by the metal removal, edge beam construction and loss of permeable root zone. I anticipate that these could all require removal. There is some uncertainty in the accuracy of their plotted locations, and as these trees do not have woody structural roots, it is possible that with on-site arboricultural input and protection measures, they can be retained even with excavations in close proximity.

6.6 Tree 9 (English oak) is an imported exotic species in this setting. They easily grow from acorns and could have been transported to the site by a number of means. Oak produce allelopathic (plant inhibiting) chemicals that regulate competing growth within their vicinity. In the time, it will form a dominant canopy, and native species will be crowded out. There is currently a good coverage of understorey trees and plants, and it is advisable to remove the oak during the works to retain the native vegetation cover. Climbing arborists will be needed to carefully dismantle and extract the tree from its surroundings without causing collateral damage. If necessary, the trunk can be left in situ, but the stump must be chemically treated to prevent regrowth.

6.7 Tree 12 (kānuka) at the car park entrance will be impacted by the earthworks and edge beam and would require pruning to reduce the overhang where vehicles turn in. Combined, the loss of foliage and roots would have a detrimental impact on the tree's health that it would not be expected to recover from. For this reason, it is proposed for removal.

6.8 Trees and vegetation along the western extent of the new car park will all be removed. These include a group of karamū and ponga (tree group 13), three mature kānuka (trees 14,15 and 16) and several harakeke beneath, and two early mature kānuka (trees 17 and 19). The edge vegetation between these trees includes māhoe, tī kōuka, nīkau and harakeke.

6.9 I used GIS software to make a conservative estimate of vegetation clearance, using the canopy edge shown in the topographic plans, and extended the area 1 m beyond the edge beam, then included the canopy areas of trees at the edges requiring removal (e.g., Tree 12). In total, the area of canopy vegetation proposed for removal is 440 m^2, of which 120 m^2 is SEA vegetation that will be permanently lost.

6.10 The effects of the proposal are the removal of 440 m^2 of canopy cover, including seven early mature to mature kānuka, ten mature nīkau, five tī kōuka and the associated understorey. 120 m^2 of SEA area will be lost permanently. The English oak tree is not included in this calculation as it can be removed carefully to leave the understorey intact and is a positive outcome.

6.11 As the removed vegetation will cut back into the wider bush, there will be no areas to carry out remedial replanting. At the site meeting, the project ecologist and I noted several pest plants growing and dumped garden waste around the car park. A contracted period of weed control and tidying up of waste to support the expected natural revegetation around the car park edge should be included.

6.12 While the ecological survey did not identify any kauri within the extent of works, they are present within the wider area, and earthworks are proposed within a soil area that is contiguous to that of kauri trees. There is a foot wash station at the footpath entrance to control the spread of kauri dieback, which is known to be present within this area of the Waitakere Ranges. Phytosanitary protocols are required to prevent the spread of kauri dieback disease to and from the site using a blanket approach to all works. Soil and vegetative material excavated from the site must be either disposed of in a controlled manner at an approved landfill or repurposed on-site. Further guidance can be obtained from Auckland Council's biosecurity team in this regard.

7. Conclusions and recommendations

7.1 A proposed car park extension and upgrade at Kakamatua Inlet proposes the removal of approximately 440 m^2 of native canopy cover from a natural stream management overlay The car park extension results in the permanent loss of 120 m^2 of the significant ecological area to the asphalt surface. Pruning and work within the tree protection zones of surrounding trees and vegetation is an inherent part of the proposal. This includes, but is not limited to, the reduction of one mature pūriri tree. Several of the trees around the periphery of the new car park may be retained with on-site arboricultural input, which is a fundamental requirement of the project. Provided the following recommendations and methodologies are adopted, the surrounding trees and vegetation can be protected and retained during works.

7.2 Should the works be carried out without care, there is potential to cause lasting damage to the surrounding trees. Protection of the vegetation and natural environment must be at the forefront of all construction activities. Machinery sizes and methodology must be modified as necessary to work within the limitation of the site.

7.3 To ensure that a full understanding of the project requirements is translated through the procurement process, this report and its recommendations must be included in all tender documents with the condition that the primary contractor is responsible for providing the same information to all subcontractors involved. All work must be carried out from the existing car park surface. Machinery and materials storage, site toilets, staff movements, and vehicle parking cannot be allowed to spill out beyond the impervious car park surface.

7.4 It is recommended that every effort be made to find dynamic engineering solutions on-site to retain trees and vegetation wherever possible. It is imperative that the car park extent is accurately marked out on-site before any establishment or physical works and that the project engineer and works arborist meet on-site to discuss any adjustments to the methodology. This may include adjustment of the edge

beam detail to be on-ground or supported on micro piles to span and retain roots or provide space for root growth.

7.5 It is recommended that the imported topsoil batter and grass seeding are removed from the project design as they will cause additional detrimental effects to the retained edge trees, cover any natural regenerating seedlings, as well as potentially introduce pest plants seeds and pathogens. Landscape grass is not appropriate in a heritage area natural forest setting.

7.6 It is recommended that the existing metal beyond the new edge beam be left in situ to prevent unnecessary damage to retained trees and vegetation that will inevitably result from its removal. The footpath re-grading alignment and methodology must be worked out on-site with arboricultural direction to prevent damage to trees lining the footpath.

7.7 Silt fencing must not include any dug in elements other than steel posts in this setting as it will encounter and sever roots, causing further impacts on the health of retained trees.

7.8 Phytosanitary measures must be implemented to prevent the spread of kauri dieback. All soil and tree material needs to be carefully disposed of in a controlled manner at a registered landfill (not a transfer station). Alternatively, the soil, roots and any other woody material can remain on site. In addition, all machinery, footwear, tools, and equipment must be free of soil contamination before entering or exiting the site. A steam cleaning station for large equipment and tools and foot wash stations with brushes followed by Sterigene disinfectant spray are recommended methods of control.

7.9 It is recommended that a suitably qualified and experienced on-site supervisory arborist (the 'works arborist') be engaged at the start of the project. The role of the works arborist is to supervise and coordinate all works and activities within the TPZ of protected trees, including the removal of existing structures and trees.

7.10 It is recommended that tree removal be undertaken by trained and experienced arboricultural professionals in a manner that avoids any unnecessary damage or disturbance to any other tree or its TPZ. Tree 9 must be dismantled carefully and extracted in a manner that avoids collateral damage to the understorey.

7.11 It is recommended that the tree protection measures prescribed in Appendix A are adhered to for the duration of the project and that these form a part of site staff inductions and notices.

Please contact the authors for further information.

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Reviewer

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Appendix A – Tree protection methodology

1. Tree protection must form a part of any site-specific hazard management and is to be included in daily toolbox meetings and all site inductions.

2. No work shall take place within the tree protection zone of the trees without prior approval from the works arborist. Any amendments to the tree protection methodology shall require prior written approval from the works arborist.

Pre-start

3. The consent holder is to engage the services of a suitably qualified and experienced on-site supervisory arborist (the 'works arborist'), who is to supervise and coordinate all works and activities within the tree protection zone of protected trees.

4. Prior to any works commencing on site, the consent holder is to arrange a site meeting with the works arborist, council's monitoring officer, council's arborist and the contractor who has overall responsibility for the works. The purpose of this meeting is to discuss the conditions of consent. At this meeting, the contractor responsible is to confirm to the satisfaction of the works arborist and council the following:

    - Methods for implementing staff awareness of tree protection and phytosanitary requirements
    - Site mark out
    - Tree removal methodology and site access
    - Programming of works
    - Demolition and construction site access and transportation of materials
    - Temporary storage areas for materials
    - Excavations within the vicinity of retained trees

Reporting

5. At the completion of works, the works arborist, at their discretion, shall sign off the work of the contractor and, if requested, provide a brief account of the project to the council arborist (if necessary, with photos). The account of works shall include, but not be limited to:

    - The effects of the works on the subject trees
    - Any remedial work which may be necessary

Protective fencing

6. Prior to works commencing, tree protection fences (see detail TP-01 in Appendix B) are to be erected as shown on the appended site drawing (2347_001_A). The fence shall serve as demarcating a complete construction exclusion zone. There must be no construction activities taking place within the construction exclusion zone.

7. The fence must remain in place for the duration of the project. There is to be no storage or stockpiling of materials, tools and equipment within the area enclosed by the fence. The protective fence may only be removed/relocated at the direction of the appointed works arborist. Any site activity which needs to take place within the fence must be done under the supervision and in coordination with an appointed supervising arborist.

8. No person, vehicle or machinery are to enter the area enclosed by the fence unless otherwise authorised to do so by the works arborist. If for any reason it becomes necessary to move the protective fence, then the area previously enclosed by the fence shall be regarded in the same way as if the fence were still in place.

9. Suitably visible weather-resistant signs are to be hung on each face of the fence, translated as necessary to read

CONSTRUCTION EXCLUSION ZONE
PROTECTED TREES
KEEP OUT

Ground protection

10. No material is to be stored, emptied or disposed of in or around the tree protection zone of any of the trees unless otherwise authorised to do so by the works arborist. Any material which is to be stored or temporarily placed in or around the tree protection zone of any of the trees shall be stored carefully on an existing or temporary hard surface such as asphalt or plywood sheets, respectively.

11. If, during the course of the works, machinery or vehicle access/manoeuvring is required in or around the tree protection zone of any of the trees, then those areas are to be covered with a protective overlay sufficient to protect the ground from being muddied, compacted, churned up or otherwise disturbed (for example 'Track Mats', or a layer of mulch or sand/SAP7 overlaid if necessary with a raft of wired planks, plywood or similar) (see detail TP-04).

12. If machinery/vehicles are to be operated or stored within the tree protection zone area on an existing or temporary load-bearing surface, then the machinery/vehicle shall not cause any detrimental effect to the tree(s) through compaction, physical damage, spillage of lubricants and fuels or discharge of waste emissions.

Excavations in and around tree protection zones

13. All excavations which are to take place in or around the tree protection zone of any of the trees shall be done so in conjunction with the works arborist, through a careful combination of pneumatic soil displacement, hand digging and machine excavation and to the satisfaction of the works arborist. Where the works arborist deems it likely that roots will be encountered in the holes, then these areas shall first be explored using hand tools only to check for the presence of such roots.

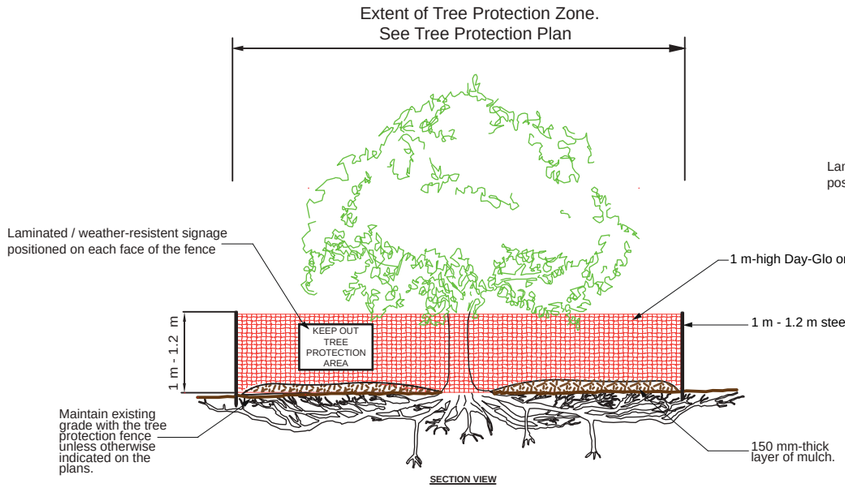
14. Where concrete is to be poured into excavations containing exposed roots, then all exposed roots shall first be covered in a layer of polythene to prevent the concrete from contacting the exposed root (see detail TP-06).

Protecting and pruning roots

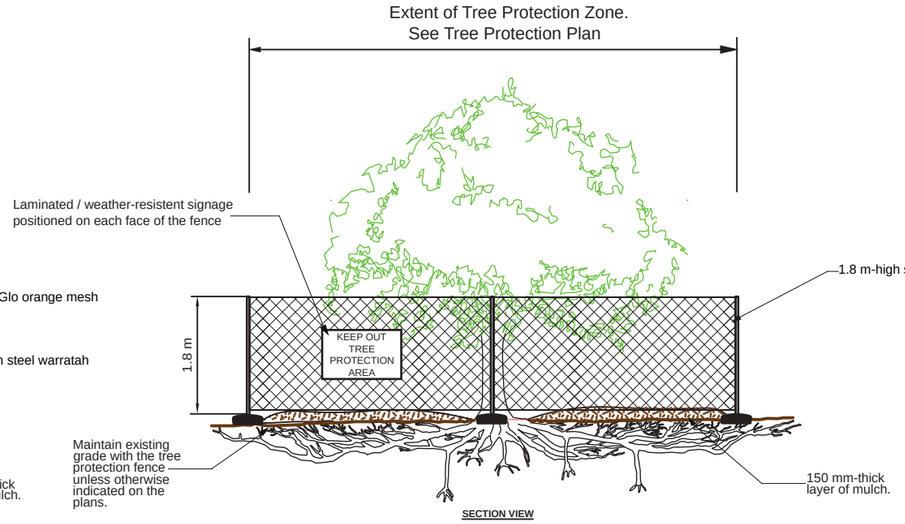
15. Every effort shall be made to avoid root severance from all trees by exploring on-site alternatives to construction/engineering, i.e., adjusting alignments etc. Where root severance is unavoidable, the severance of any root is to be carried out by the works arborist, who shall select the most appropriate implement for the task. Roots shall be cut cleanly to ensure that the traumatic cambium is able to initiate new root growth as effectively as possible, and the exposed cut faces should be covered over immediately with moist soil.

16. Where roots to be retained are encountered, and there is a need for these roots to remain exposed in order that works are not impeded, then those roots shall be covered with a suitable protective material (such as moist Hessian or a wool mulch) in order to protect them from desiccation and/or mechanical damage until such a time as the area around the root can be backfilled with the original material. The wrapping or covering of any roots shall be undertaken by the works arborist.

Appendix B – Tree protection details



TP-01 TREE PROTECTION - TREE PROTECTION FENCING



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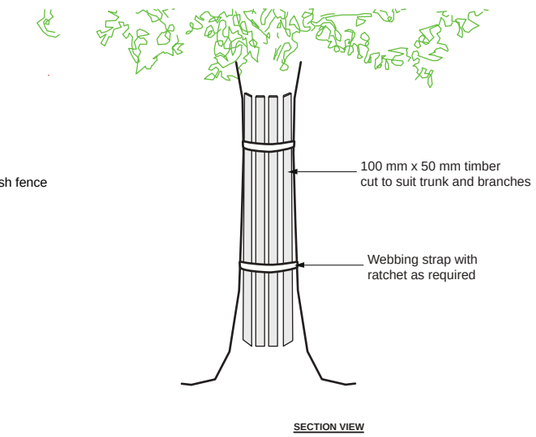
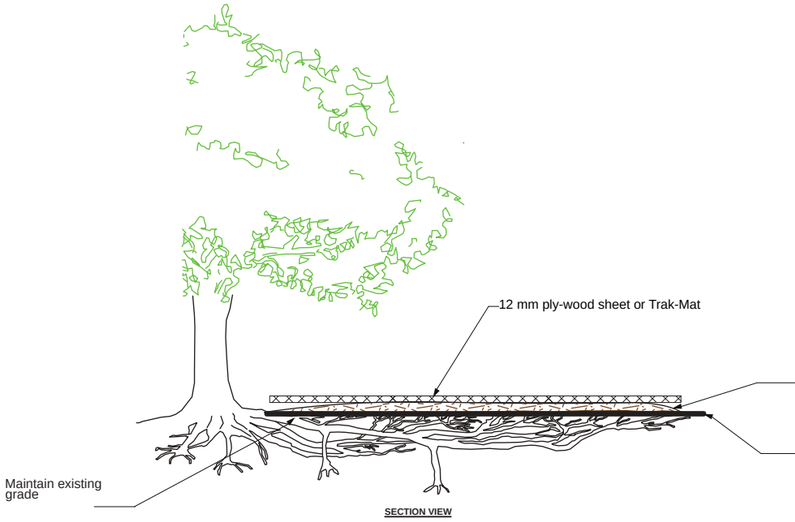
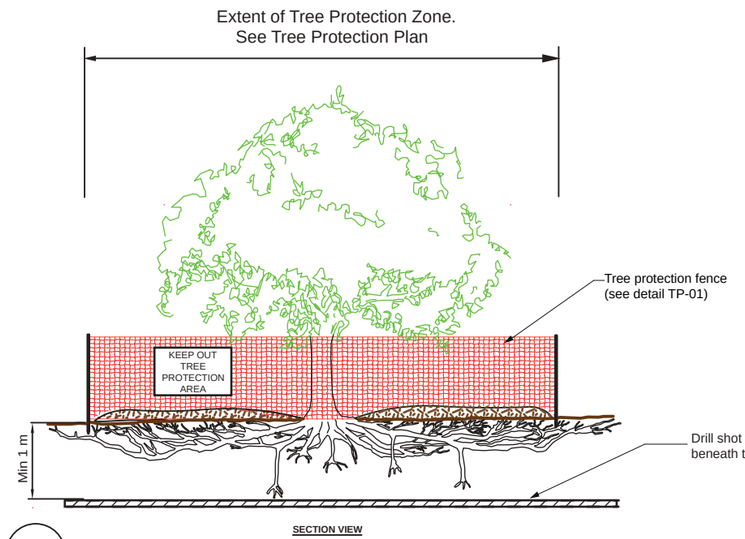


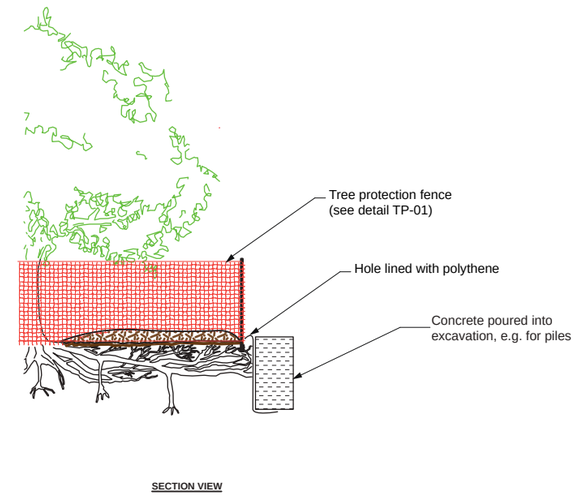
TP-03 TREE PROTECTION - TRUNK PROTECTION



TP-04 TREE PROTECTION - GROUND PROTECTION



TP-05 TREE PROTECTION - DIRECTIONAL DRILLING



TP-06 TREE PROTECTION - EXCAVATIONS CONTAINING ROOTS

All works around trees are to proceed in strict accordance with the tree protection methods
All works around trees are to be supervised by an appointed works arborist
No pruning of branches or roots unless undertaken by the appointed works arborist
No equipment or material is to enter or be stored inside the protective fence
Details scaled as shown

STANDARD TREE PROTECTION DETAIL

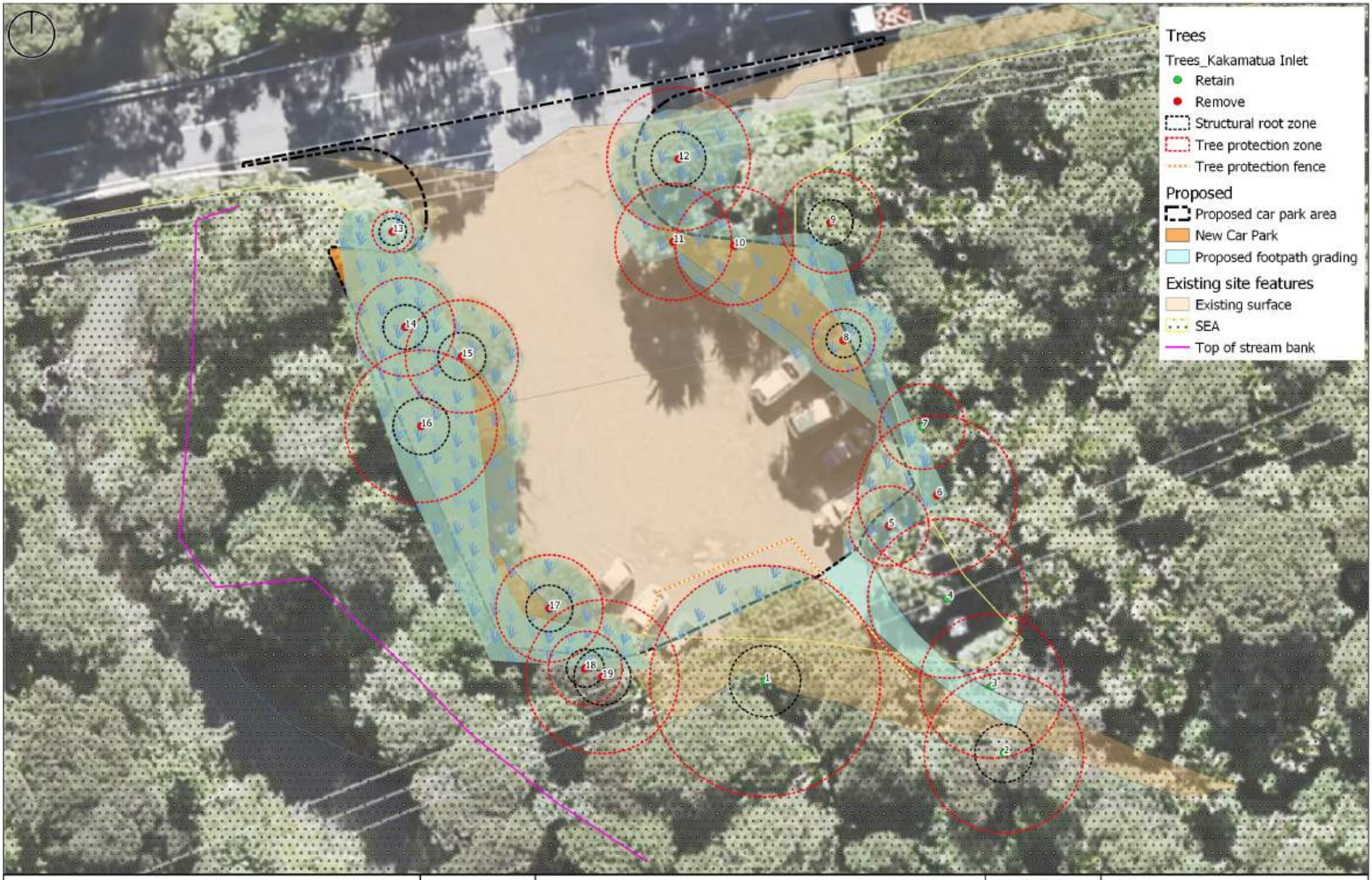
The TREE CONSULTANCY – COMPANY –

Drawing TTCC- TP- 2020

Revision 001

Date 13-08-2020

Appendix C – Drawing 2347_001_A



5 0 5 m

Auckland Council

Kakamatua Inlet Car Park
Appendix C - Tree Location Plan

TREE CONSULTANCY

Project No. 2347

Drawing: 001

Rev: A 3/6/22

Appendix D – Tree inventory

Tree number	No. of trees	Species	Height (m)	DBH (cm)	Structural root zone radius (m) (Coder, 1996)	Tree protection zone radius (m) (Benson, 2019)	Overall vitality	Live crown volume	Branch structure	Form	Age class	Protection status	Proposed	Arboricultural comments and observations
1	1	Pūriri	8	50.8	2.3	7.6	Good	100%	Good	Fair	Mature	Open space	Prune - retain	Asymmetric growth habit, mostly over car park. Low foliage to crown lift but will still be a limitations for machinery. Leave metal in situ.
2	1	Kānuka	10	35.0	1.9	5.3	Good	90% - 95%	Good	Good	Mature	Open space	Retain and protect	Abuts metal path edge. Leave metal in situ.
3	1	Tī kōuka	8	31.8	1.8	4.8	Good	95% - 99%	Fair	Good	Mature	Open space	Retain and protect	Some trunk decay on path side. Abuts metal path edge. Leave metal in situ.
4	1	Tī kōuka	8	35.0	1.9	5.3	Good	100%	Fair	Good	Mature	Open space	Retain and protect	Decay In the largest stem abutting path.
5	3	Nīkau	7	17.5	1.3	2.6	Good	100%	Good	Good	Mature	Open space	Remove	At corner of metal plus two trees along car space edge. One pigeonwood below. Retain if possible.
6	2	Tī kōuka	8	35.0	1.9	5.3	Good	100%	Good	Good	Mature	Open space	Remove	5.4 m from catch pit. Worthy of retention if possible.
7	1	Tī kōuka	6	18.8	1.4	2.8	Good	90% - 95%	Fair	Fair	Mature	Open space	Remove	Regrowth from an older trunk. Original main trunk well decayed. 3.6 m from catchpit. Mahoe below. Retain if possible.
8	1	Kānuka	8	13.7	1.1	2.1	Good	100%	Fair	Fair	Early mature	Open space	Remove	Irregular curved trunk base with correction.
9	1	English oak	10	22.3	1.5	3.3	Good	100%	Good	Good	Early mature	Road	Remove	Inappropriate tree for the setting will become dominant canopy over the native forest and a seed source. Remove and treat stump to prevent regrowth.
10	2	Nīkau	5	25.9	1.6	3.9	Good	100%	Good	Good	Mature	Road	Remove	
11	2	Nīkau	7	25.7	1.6	3.8	Good	100%	Good	Good	Mature	Road	Remove	At corner by entrance.
12	1	Kānuka	7	31.5	1.8	4.7	Good	100%	Good	Good	Mature	Road	Remove	2.6 m from the curved asphalt seal at the entrance of the car park. Shorter compact form well-structured approximately 3 m clearance over the entrance.
13	1	Karamū	4	8.9	0.9	1.3	Poor	20% - 25%	Poor	Fair	Early mature	Road	Remove	Declining tree and a few dead ponga trunks at the entrance.
14	1	Kānuka	8	21.6	1.5	3.2	Good	95% - 99%	Fair	Fair	Mature	Road	Remove	At metal edge.
15	1	Kānuka	8	24.8	1.6	3.7	Good	95% - 99%	Good	Good	Mature	Road	Remove	
16	1	Kānuka	8	33.4	1.9	5.0	Good	95% - 99%	Poor	Poor	Mature	Open space	Remove	lateral branches that overhang car park. Irregular form from former central stem loss. Decay in trunk below.
17	1	Kānuka	8	23.6	1.5	3.5	Good	100%	Good	Good	Early mature	Open space	Remove	At metal edge.
18	1	Māhoe	5	16.2	1.2	2.4	Poor	25% - 30%	Fair	Poor	Mature	Open space	Remove	Declining.
19	1	Kānuka	10	33.7	1.9	5.1	Good	100%	Good	Good	Mature	Open space	Remove	Good tree. Retain if possible.

Appendix E – Site photographs

Photo 1: Tree 1 (right), footpath and trees 2 – 5.

Photo 2: Right to left - trees 3-7.

Photo 3: Right to left - trees 7-9.

Photo 4: Right to left – trees 9-12.

Photo 5: Right to left – trees 13-16.

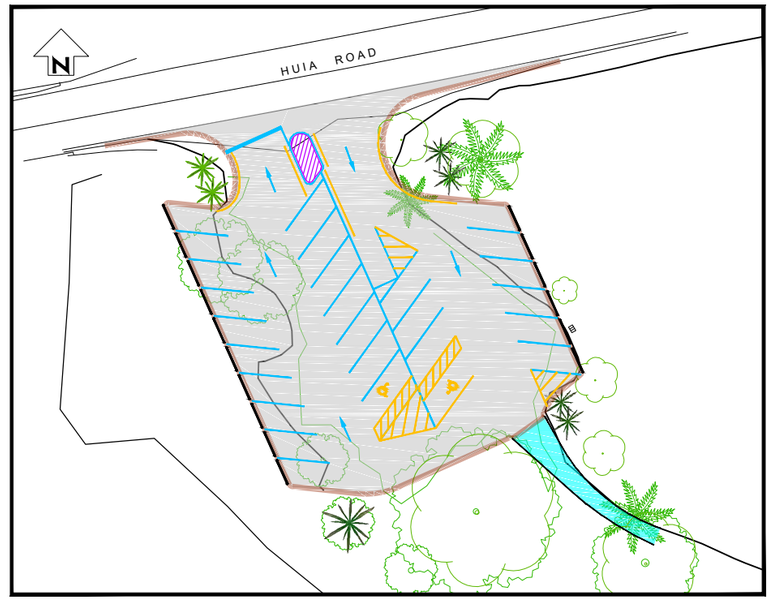
Photo 6: Right to left – trees 17-19.

AUCKLAND REGION WIDE CARPARK RENEWAL PROGRAMME
310203692 - KAKAMATUA INLET CAR PARK

DRAWINGS INDEX

DWG No.	DRAWING TITLE
310203692-01-001-C000	COVER SHEET, KEY PLAN & DRAWINGS INDEX
310203692-01-001-C001	GENERAL NOTES PLAN
310203692-01-001-C002	GENERAL ARRANGEMENT & KEY DIMENSIONS PLAN
310203692-01-001-C003	PROPOSED PAYMENT AND SEDIMENT CONTROL PLAN
310203692-01-001-C004	STANDARD DETAILS

KEY PLAN



DETAILED DESIGN
12.07.2022

Design with community in mind

Sheet No. 310203692-01-001-C000

Rev. B

DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A1

GENERAL NOTES

1. ALL WORK AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE AUCKLAND COUNCIL AND AUCKLAND TRANSPORT ENGINEERING QUALITY STANDARDS.
2. CONTRACTOR TO PREPARE AND TEST SUBGRADE TO ACHIEVE CBR STATED IN THE DETAILS. IF SUBGRADE IS NOT ACHIEVED, CONTRACTOR TO INFORM THE ENGINEER FOR RECOMMENDATIONS.
3. THE CONTRACTOR IS TO LOCATE AND PROTECT ALL EXISTING SERVICES INCLUDING POWER, TELECOM AND GAS BEFORE COMMENCING WORKS. SEE THE RESPECTIVE SERVICES AUTHORITIES FOR ASSISTANCE.
4. THE CONTRACTOR IS TO ENSURE THAT STORMWATER RUNOFF IS DIVERTED AWAY FROM THE WORKS AREA DURING CONSTRUCTION. THE LEVELS OF SURFACE TO REMAIN THE SAME WITH RESEAL.
5. ALL WORK ON THE EXISTING PUBLIC DRAINS IS TO BE PERFORMED BY A REGISTERED DRAIN LAYER.
6. INSPECTIONS ARE REQUIRED OF ALL PIPE CONNECTIONS AND BEDDING WHEN PLACED PRIOR TO BACKFILLING & ALL MANHOLES WHEN FINISHED. THE CONTRACTOR SHALL GIVE 24 HOURS NOTICE PRIOR TO REQUIRING AN INSPECTION.
7. CONTRACTOR TO BARRICADE SITE WORKS DURING CONSTRUCTION.
8. LINEMARKING TO BE PAINTED AS PER MOTSAM AND TO BE REINSTAED LIKE FOR LIKE.
9. EXISTING KERBS, CHANNELS AND SUBSOILS TO BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
10. EXTENT OF KERB REPLACEMENT TO BE CONFIRMED ON SITE BY THE ENGINEER.
11. ANY DISCREPANCY BETWEEN THE DETAILS SHOWN ON THIS DRAWING AND CONDITIONS ON SITE ARE TO BE NOTIFIED TO THE ENGINEER IMMEDIATELY.

UNDERGROUND AND ABOVE GROUND UTILITIES NOTES

GENERAL

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE LATEST SERVICE PLANS FROM SERVICE PROVIDERS.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL NECESSARY PERMISSIONS AND PERMITS TO COMMENCE WORK.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY UNDER THE HEALTH AND SAFETY EMPLOYMENT ACT 2015, WHEREBY THE LOCATION OF ALL UNDERGROUND UTILITIES MUST BE ESTABLISHED BEFORE COMMENCING EXCAVATION AND TO HAND EXPOSE ANY PIPES AND CABLES BEFORE USING MACHINERY.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ALLOW FOR ADEQUATE NOTICE WHEN REQUESTING FOR PLANS, MARK-OUTS AND PERMITS FROM THE UTILITY PROVIDERS.
5. THE ACCURACY OF THE UTILITY PLANS PROVIDED BY THE RELEVANT AUTHORITIES CANNOT ALWAYS BE GUARANTEED. ROAD REALIGNMENT, RECONSTRUCTION AND CHANGES TO PROPERTY BOUNDARIES CAN ALL AFFECT ACCURACY.
6. ALTERATIONS TO THE GROUND COVER MAY REDUCE OR INCREASE CABLE OR PIPE DEPTHS. EXPECT A CABLE OR PIPE TO BE AT ANY DEPTH. THE CONTRACTOR SHALL HAND DIG TO CONFIRM THE LOCATION OF CABLES OR PIPES.
7. WHERE A CABLE OR PIPE LOCATION HAS BEEN CARRIED OUT BY THE RELEVANT UTILITY PROVIDERS, ALLOW 0.5 METRES TOLERANCE FOR THE UNCERTAINTY IN THE ACCURACY OF THE LOCATING DEVICE.
8. CABLE LOCATIONS MARKED ON SITE ARE ONLY VALID FOR 7 DAYS AFTER WHICH REMARKING IS REQUIRED.
9. THE CONTRACTOR IS RESPONSIBLE TO CONTACT THE RELEVANT UTILITY PROVIDERS WITHOUT DELAY IF ANY DAMAGE IS DONE TO THE UTILITIES (CABLE, WIRE OR PIPE).
10. ALL SERVICES SHALL BE ASSUMED TO BE LIVE UNTIL DISCONNECTED BY THE RELEVANT UTILITY PROVIDERS AND PROVED SAFE AT THE POINT OF WORK. WRITTEN CONFIRMATION OF DISCONNECTION SHOULD BE OBTAINED FROM THE SERVICE OWNER BEFORE REMOVING A REDUNDANT SERVICE.

WATERCARE

1. WHERE A WATERCARE PIPE IS IDENTIFIED TO BE WITHIN THE WORK SITE, A WATERCARE PERMIT TO WORK MUST BE OBTAINED, IN ADVANCE, PRIOR TO CONSTRUCTION WORKS.
2. FOR ANY CONSTRUCTION PROPOSAL WITHIN 10 METRES (OR 15 METRES IF BLASTING IS REQUIRED) OF ANY WATERCARE MAIN SEWER OR WATER MAIN WILL REQUIRE WATERCARE'S APPROVAL BEFORE COMMENCEMENT OF ANY WORKS.

OVERHEAD CABLES

1. WHERE WORK WILL BE UNDERTAKEN UNDERNEATH ANY OVERHEAD CABLES, AN OVERHEAD PERMIT TO WORK MUST BE OBTAINED, IN ADVANCE, PRIOR TO CONSTRUCTION WORKS.

CARPARK TECHNICAL SPECIFICATION

PAVEMENT CONSTRUCTION

PAVEMENT TESTING: CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING TO ENSURE MATERIALS MEET THE DESIGN REQUIREMENTS AND SPECIFICATION.

AGGREGATE LAYERS

CONSTRUCTION OF GRANULAR LAYERS (GAP 65 AND NZTA AP40 M/4) SHALL COMPLY WITH THE NZTA B/2 SPECIFICATION OF UNBOUND GRANULAR PAVEMENT LAYERS
SUBBASE SHALL BE GAP65 FREE FROM CLAY, ORGANIC MATTER AND OTHER DELETERIOUS MATERIALS.
BASECOURSE SHALL BE NZTA M/4 AP 40 OR APPROVED ALTERNATIVE.
BENKELMAN BEAM DEFLECTION MEASUREMENT SHALL BE CARRIED OUT AS PER NZTA T/1 AT 10M STAGGERED INTERVALS.
ACCEPTANCE CRITERIA: 95^{TH} PERCENTILE < 1.2MM, NO INDIVIDUAL READING >2MM

STABILISED AGGREGATE LAYERS

STABILISED SUB BASE SHALL COMPLY WITH THE NZTA : B/6: 2012 SPECIFICATION FOR IN-SITU STABILISATION OF BOUND SUB BASE LAYERS.

CHIP SEALING

SINGLE COAT OR DOUBLE COAT CHIP SEALS SHALL BE IN ACCORDANCE WITH NZTA M/6 SPECIFICATION.
CHIP SEAL MEMBRANE UNDER THE ASPHALT LAYER SHALL BE A SINGLE COAT GRADE 4
WHEN MEASURED IN ACCORDANCE WITH THE PROCEDURES SPECIFIED IN NZTA T/3, THE SURFACE TEXTURE OF THE COMPLETED RESEAL MUST BE SUCH THAT THE RESEAL CAN BE EXPECTED TO PERFORM ACCEPTABLY FOR A PERIOD OF NOT LESS THAN THE DESIGN LIFE.

ASPHALT SURFACING

SURFACING SHALL COMPLY WITH NZTA M/10:2014 - SPECIFICATION FOR DENSE GRADED AND STONE MASTIC ASPHALTS
THE DESIGN LIFE FOR ALL AC SURFACING MUST BE A MINIMUM OF 10 YEARS.
THE NEW PAVEMENT MUST BE FREE FROM DEPRESSIONS OR AREAS THAT POND WATER, ANY ABRUPT SURFACE LEVEL, INCLUDING SERVICE COVERS AND IRREGULARITIES EXCEEDING 6 MM WHEN MEASURED WITH A 5M STRAIGHT EDGE.
ALL SERVICE COVERS MUST BE RAISED DURING NEW SURFACING OR RESURFACING OPERATIONS TO BE FLUSH WITH THE ADJACENT FINISHED PAVEMENT SURFACE LEVEL.

JOINT SEALING

THE JOINT BETWEEN THE EXISTING AND NEW ASPHALT SHALL BE JOINT SEALED WITH A HOT POURED RUBBER-BITUMEN SEALANT IN ACCORDANCE WITH BEST PRACTICE.

ROADMARKING

ROAD MARKING SHALL BE INSTALLED IN ACCORDANCE WITH TNZ P/22 SPECIFICATION FOR REFLECTORISED PAVEMENT MARKING.
ROAD MARKING MATERIALS SHALL BE IN ACCORDANCE WITH TNZ M/7 ROAD MARKING PAINTS EXCEPT FOR LONG LIFE
MARKING WHICH SHALL BE IN ACCORDANCE WITH TNZ M/20 LONG LIFE ROAD MARKING MATERIAL. ALL MARKINGS ARE TO BE REFLECTORISED EXCEPT WHERE SPECIFICALLY INDICATED OTHERWISE ON THE DRAWINGS.

CONCRETE KERBS

ALL CONCRETE SHALL BE 20MPa CONCRETE UNLESS NOTED ELSEWHERE.

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
B	SPECIFICATIONS -UPDATED	DJ	GM	GS	12.07.2022
A	DETAILED DESIGN	KR	LR	GS	11.05.2022

SURVEYED	Others	04/2022
DESIGNED	Arvind G Kumar	12.07.2022
DRAWN	Densely Jacob	12.07.2022
CAD REVIEW	Dilip Datta	12.07.2022
DESIGN CHECK	Lukshmi Ranasinghe	12.07.2022
DESIGN REVIEW	Gary McLean	12.07.2022
APPROVED	Graeme Stanton	12.07.2022
PROF REGISTRATION:		

Stantec

Auckland Council
Te Kaunihera o Tamaki Makaurau

KAKAMATUA INLET CARPARK

GENERAL NOTES PLAN AND SPECIFICATIONS

Status Stamp: **DETAILED DESIGN**
Date Stamp: **12.07.2022**
Scales:
Drawing No.: 310203692-01-001-C001
Rev.: B

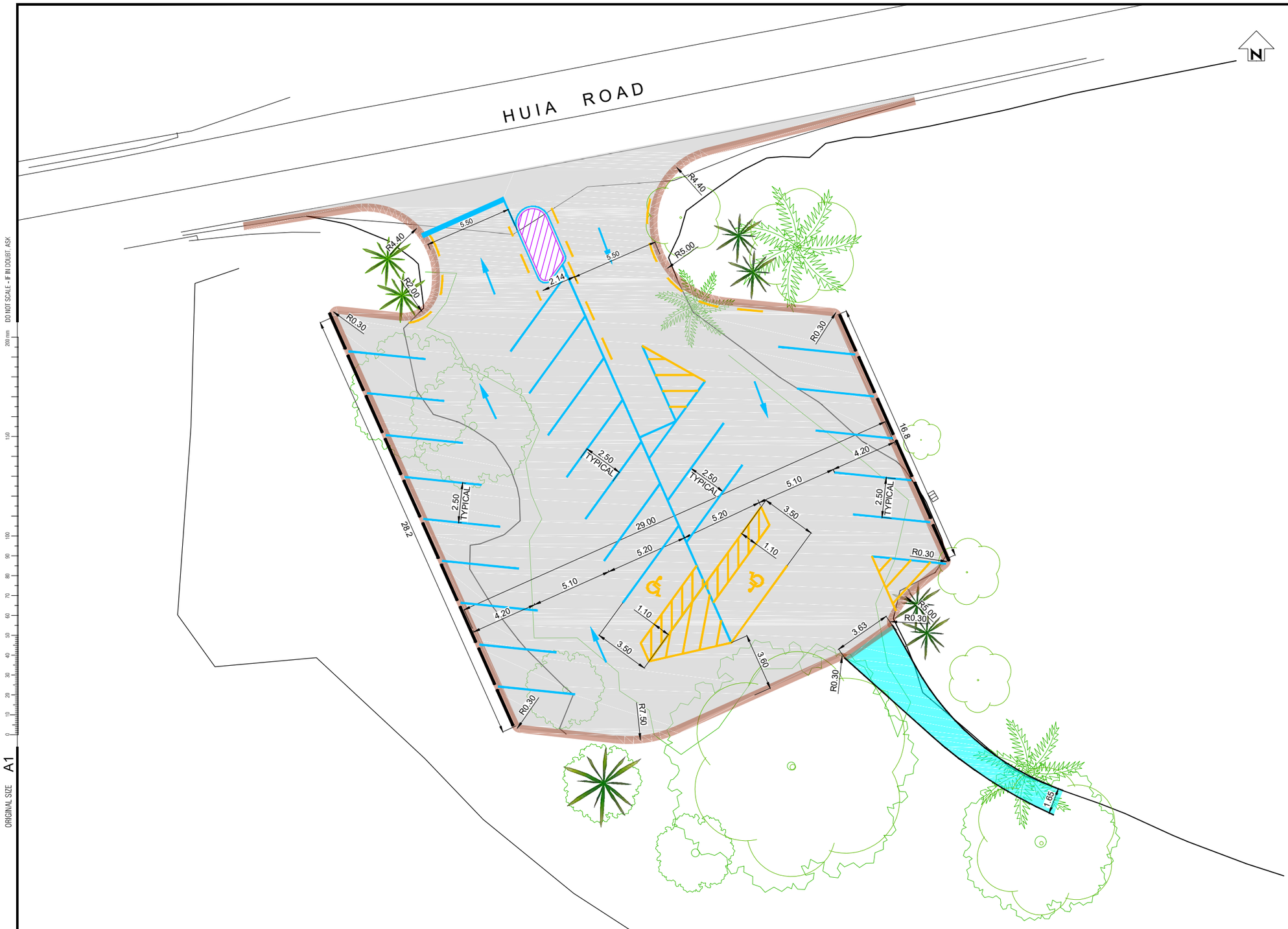
\\Nz4105-ppfss01\shared_projects\310203692\7.0 Projects\20526 Kakamatua Inlet & Upper Nihotupu\3 Planning and Design\3.2 Detailed Design\Kakamatua Inlet car park_New design layout\CAD\310203692-01-001-C001

NOTES

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

LEGEND

- EDGE BEAM
- TRAFFIC ISLAND
- PROPOSED ROAD MARKING
- TIMBER WHEEL STOP
- CAR PARK EXTENT
- PROPOSED EXTENT OF PEDESTRIAN ACCESS



2.5 0 2.5 5m

SCALE 1:125

NOT FOR CONSTRUCTION

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B	DEATILED DESIGN-UPDATED	DJ	GM	GS	12.07.2022
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DESIGN REVIEW	Gary McLean	12.07.2022
APPROVED	Graeme Stanton	12.07.2022
PROF REGISTRATION:		

Stantec

Client: Auckland Council — Te Kaunihera o Tamaki Makaurau

KAKAMATUA INLET CARPARK

GENERAL ARRANGEMENT AND KEY DIMENSIONS PLAN

Status Stamp: DETAILED DESIGN

Date Stamp: 12.07.2022

Scales: (A1) 1:125 (A3) 1:250

Drawing No.: 310203692-01-001-C002

Rev.: B

ORIGINAL SIZE A1

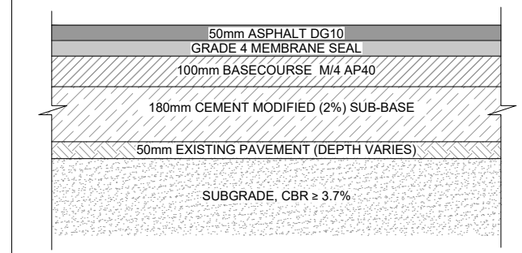
DO NOT SCALE - IF IN DOUBT ASK

NOTES

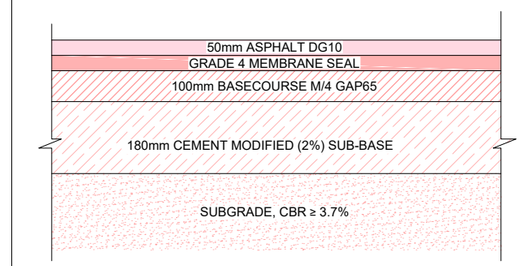
1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. DO NOT REMOVE SILT FENCE AND ACCUMULATED SEDIMENT UNTIL CATCHMENT AREA HAS BEEN APPROPRIATELY STABILISED.
3. REMOVE AND CORRECTLY DISPOSE OF ACCUMULATED SEDIMENTS.
4. SILT FENCING MUST NOT INCLUDE ANY DUG IN ELEMENTS OTHER THAN STEEL POSTS IN THIS SETTING AS IT WILL ENCOUNTER AND SERVE ROOTS ,CAUSING FURTHER IMPACTS ON THE HEALTH OF RETAINED TREES.
5. CONTRACTOR MAY NOT USE IMPORTED TOPSOIL NOR GRASS SEEDLINGS AS THEY WILL CAUSE ADDITIONAL DETRIMENTAL EFFECTS TO THE RETAINED EDGE TREES,COVER ANY NATURAL REGENERATING SEEDLINGS ,AS WELL AS POTENTIALLY INTRODUCE PEST PLANTS SEEDS AND PATHOGENS.
6. THE EXISTING METAL BEYOND THE NEW EDGE BEAM NEEDS TO BE LEFT IN-SITU TO PREVENT UNNECESSARY DAMAGE TO RETAINED TREES AND VEGETATION THAT WILL INEVITABLY RESULT FROM ITS REMOVAL.
7. THE FOOTPATH RE-GRADING ALIGNMENT AND METHODOLOGY MUST BE WORKED OUT ON-SITE WITH ARBORICULTURAL DIRECTION TO PREVENT DAMAGE TO THE TREES LINING THE FOOTPATH.

LEGEND

- PROPOSED EXTENT OF PEDESTRIAN ACCESS
- TRAFFIC ISLAND
- DIRECTION OF RUNOFF
- SILT FENCE
- TYPE 1 PAVEMENT
- TYPE 2 PAVEMENT



TYPE 1 PAVEMENT



TYPE 2 PAVEMENT

2.5 0 2.5 5m
SCALE 1:125

NOT FOR CONSTRUCTION

DO NOT SCALE - IF IN DOUBT, ASK
ORIGINAL SIZE A1

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A	DETAILED DESIGN	KR	LR	GS	11.05.2022

SURVEYED	Others	04/2022
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DESIGN REVIEW	Gary McLean	12.07.2022
APPROVED	Graeme Stanton	12.07.2022
PROF REGISTRATION:		

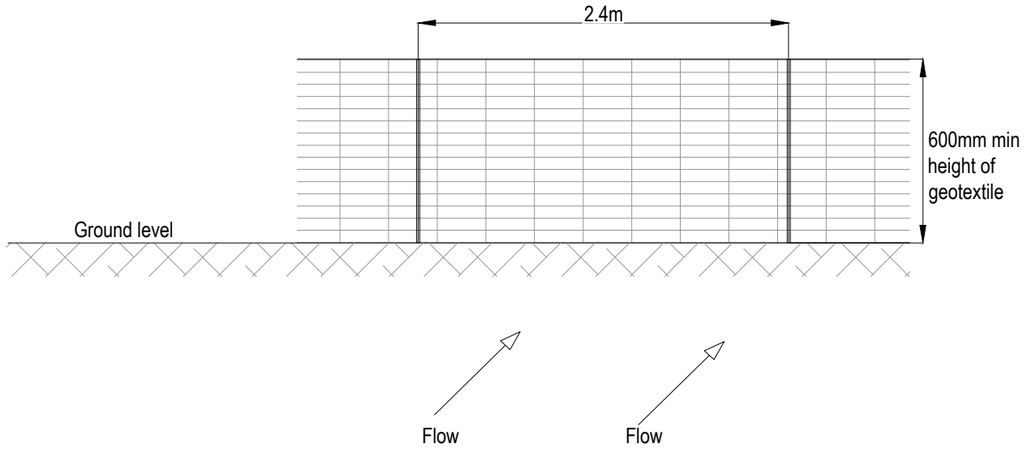
Stantec

Client: Auckland Council
Te Kaunihera o Tamaki Makaurau

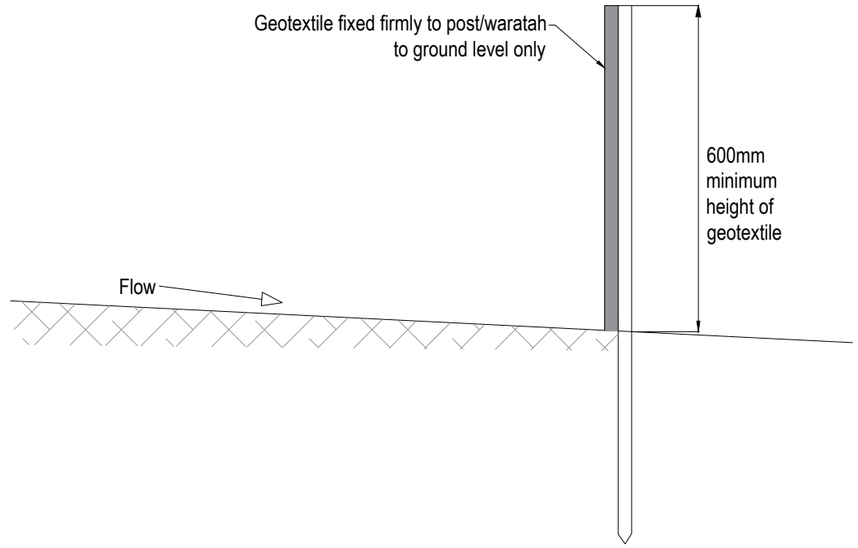
KAKAMATUA INLET CARPARK

PROPOSED PAVEMENT LAYOUT AND SEDIMENT CONTROL

Status Stamp: DETAILED DESIGN
Date Stamp: 12.07.2022
Scales: (A1) 1:125 (A3) 1:250
Drawing No.: 310203692-01-000-C003-01
Rev.: B

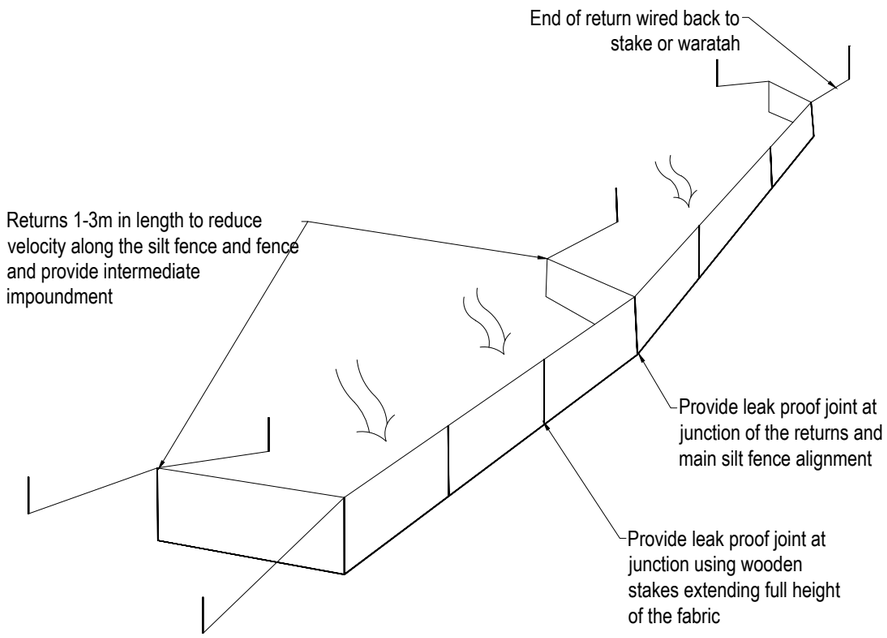


ELEVATION

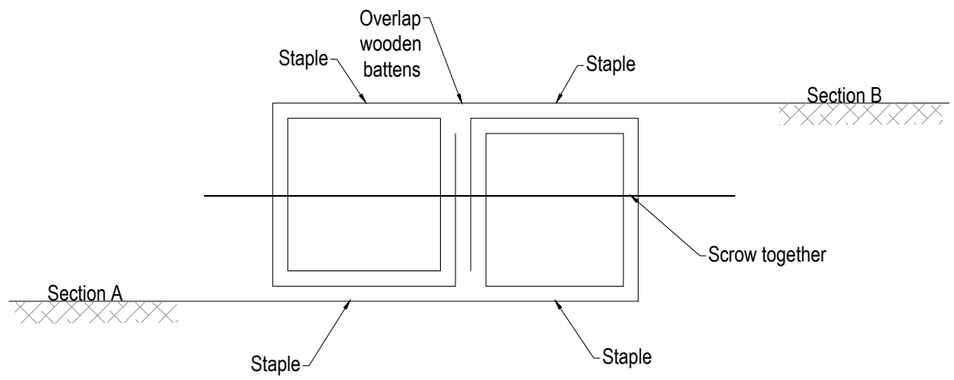


Note: Geotextile installed to ground level to avoid root disturbance

CROSS SECTION



SILT FENCE WITH RETURNS AND SUPPORT WIRE



STANDARD FABRIC JOINT

NOT FOR CONSTRUCTION

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A	DETAILED DESIGN	KR	LR	GS	11.05.2022

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APPROVED	Graeme Stanton	12.07.2022
PROF REGISTRATION:		

Stantec

Client:

KAKAMATUA INLET CARPARK

PROPOSED PAVEMENT LAYOUT AND SEDIMENT CONTROL

Status Stamp: DETAILED DESIGN

Date Stamp: 12.07.2022

Scales: (A1) 1:125 (A3) 1:250

Drawing No.: 310203692-01-001-C003-02

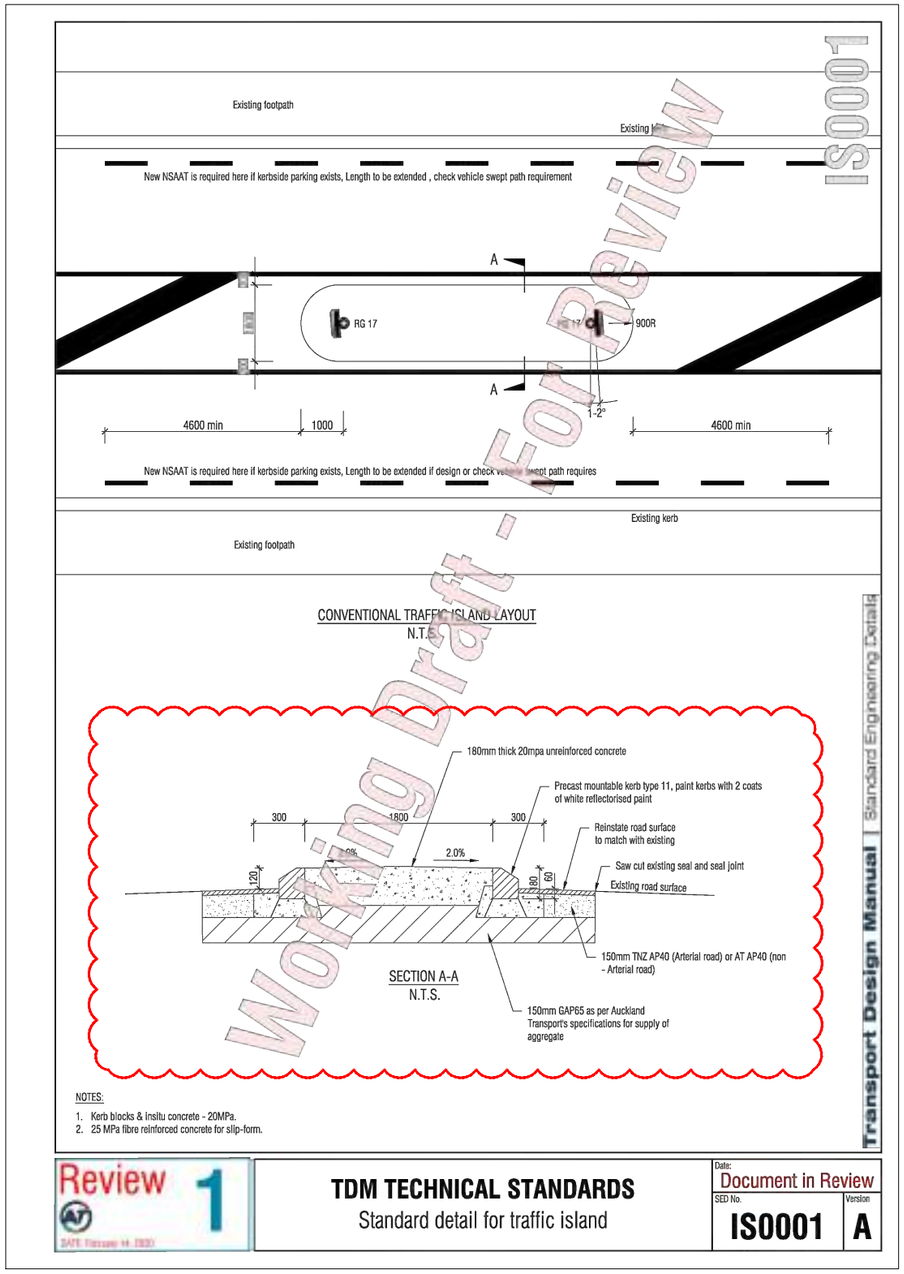
Rev.: B

ORIGINAL SIZE A1

DO NOT SCALE - IF IN DOUBT, ASK

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.



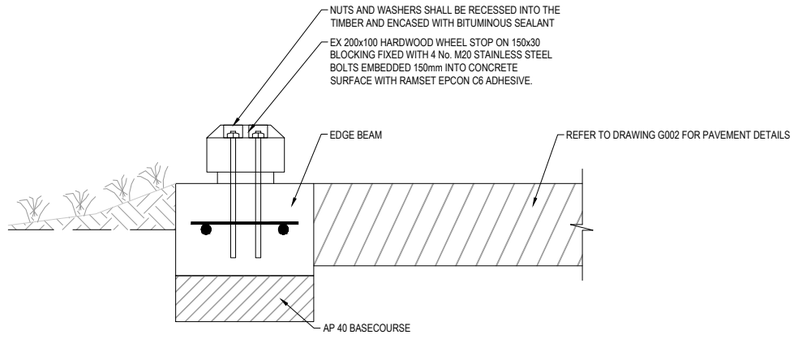
CONVENTIONAL TRAFFIC ISLAND LAYOUT
N.T.S.

SECTION A-A
N.T.S.

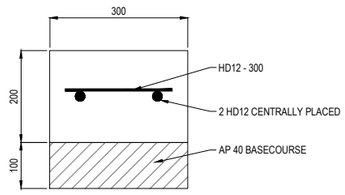
NOTES:

1. Kerb blocks & insitu concrete - 20MPa.
2. 25 MPa fibre reinforced concrete for slip-form.

Transport Design Manual | Standard Engineering Details



WHEEL STOP DETAIL



EDGE BEAM

Review 1
DATE: [illegible]

TDM TECHNICAL STANDARDS
Standard detail for traffic island

Date: Document in Review
SED No. IS0001
Version A

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
B	DETAILED DESIGN-UPDATED	DJ	GM	GS	12.07.2022
A	DETAILED DESIGN	KR	LR	GS	11.05.2022

SURVEYED	Others	04/2022
DESIGNED	Arvind G Kumar	12.07.2022
DRAWN	Densely Jacob	12.07.2022
CAD REVIEW	Dilip Datta	12.07.2022
DESIGN CHECK	Lukshmi Ranasinghe	12.07.2022
DESIGN REVIEW	Gary McLean	12.07.2022
APPROVED	Graeme Stanton	12.07.2022
PROF REGISTRATION:		

Stantec

Client: Auckland Council
Te Kaunihera o Tamaki Makaurau

KAKAMATUA INLET CARPARK

STANDARD DETAILS

Status Stamp: DETAILED DESIGN
Date Stamp: 12.07.2022
Scales: N.T.S
Drawing No.: 310203692-01-001-C004
Rev.: B

DO NOT SCALE - IF IN DOUBT, ASK
ORIGINAL SIZE A1

Local Board Capital Transport Fund

Candidate projects – short listing

February 2023

Intro

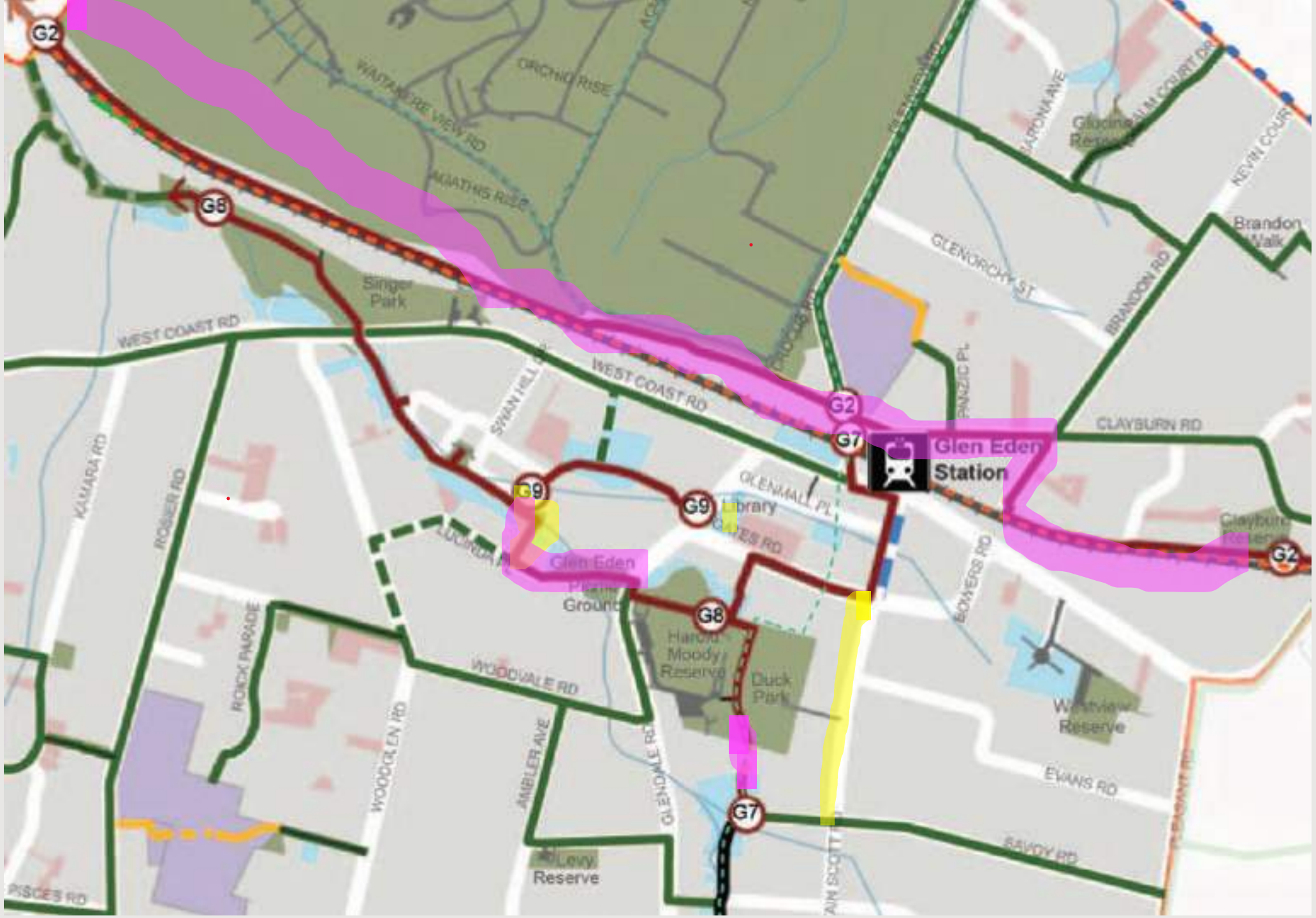
- $1.46 million available over term (subject to annual budget decisions
- Local board to identify a long-list of candidate projects
- Assessment criteria
    - Aligns to local plans
    - Transport choice – improves access to walking, cycling, public transport.
    - Safety
    - Cost

Considerations

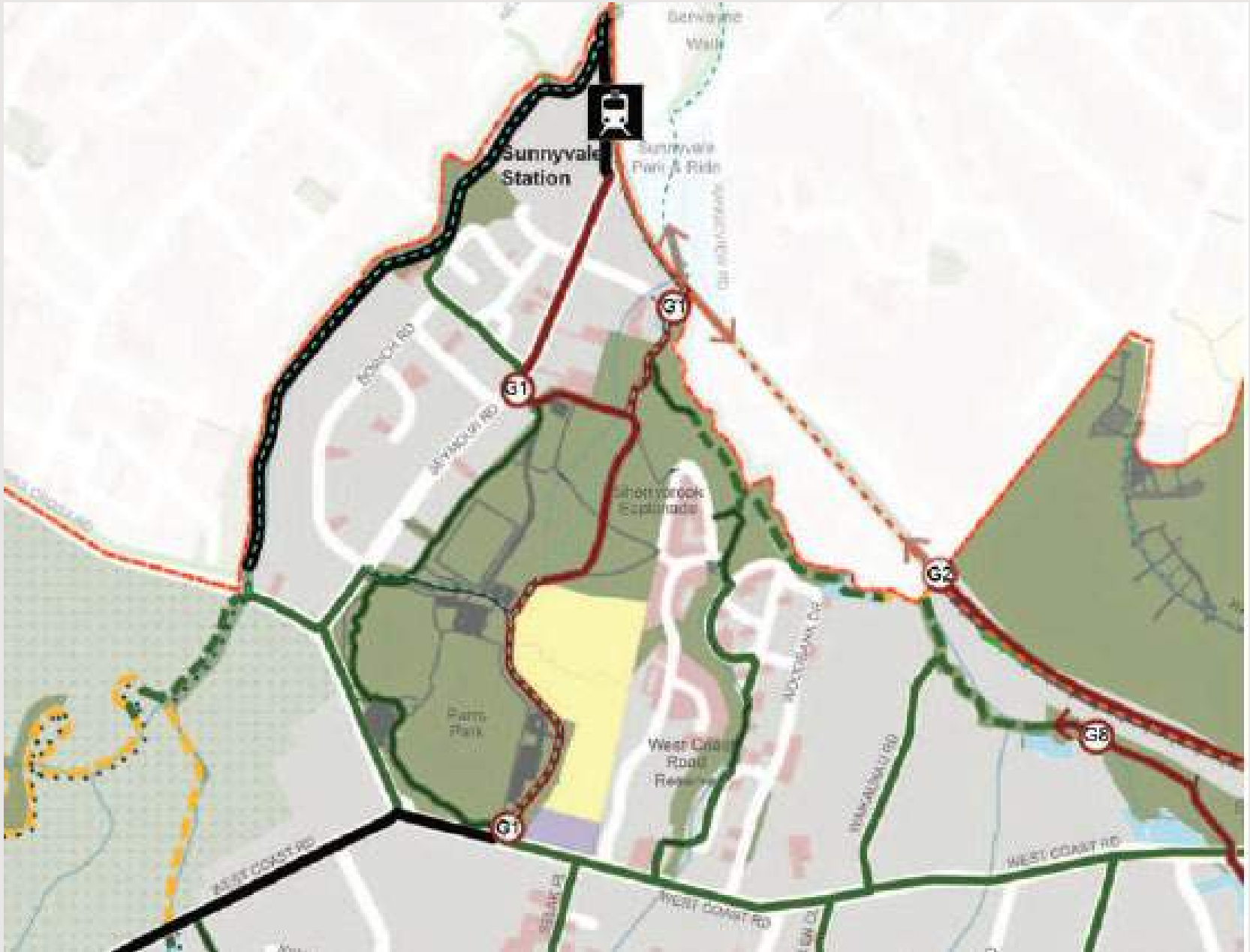
- Delivering on transport aspirations in your local plans
  - Glen Eden town centre plan
  - Waitakere Ranges greenways plan (9 priority routes, 3 under investigation, 1 to be developed)
  - 5 local area plans (Muddy Creeks, Te Henga, Henderson Valley, Oratia, Waiatarua)
- Responding to community requests, eg Albionvale
- Sharing the benefit across the area?
- Cost and ease of delivery

AT short list proposals

Local Board	Project Name	Address	Project origin if known	Project Description/ Comments/ History
Waitākere Ranges	Captain Scott Rd speed-calming	Between the intersections of Oates Road and Savoy Road	Local board/ Councillor request	This section of Captain Scott Rd was used to trial an on-road cycleway and speed calming which has since been removed. The general feedback from the community was they did not like the on-road cycleway (and associated parking loss) but there was positive feedback from the board with regards to the traffic calming. Vertical speed calming measures, gateway treatments, crossing points, driver feedback signs.
Waitākere Ranges	Glengarry Road Footpath Improvement	32 Glengarry Rd, Glen Eden	Public request	At number 32 the footpath has significant crossfall, which has led to multiple wheelchair users to fall (hospitalised) at this location. The project scope is to identify ways to regrade/ realignment of this footpath without impacting on the driveway of property 32.
Waitākere Ranges	Godley Rd Driver feedback Sign	Near #207 Godley Rd, Titirangi	Local board/ Councillor request	Speeding issues have been identified by customers on Godley Road, 85th Percentile speeds in Jul 21 are 58.1 km/h from traffic counts. Install a new driver feedback sign for the westbound approach traffic heading towards Titirangi Road.
Waitākere Ranges	Pooks Rd, raised zebra crossing	18 Pooks Rd, Ranui	Public request	Concerns raised from residents about existing raised table would like it converted to a raised zebra crossing.
Waitakere Ranges	Glen Eden Train Station to Upper Waikumete Stream Walk and Cycleway (old LBTCF project)	Glen Eden Train Station	Local board/ Councillor request	Previous term LBTCF project for investigation only. Need to check if additional funding is required to fund this as a new project.
Waitākere Ranges	Parrs Park to Sunnyvale shared path (old LBTCF project)	Parrs Park to Sunnyvale shared path	Local board/ Councillor request	Previous term LBTCF project for investigation only. Need to check if additional funding is required to fund this as a new project. Some indicative costs ($450k)


G2
G8
G9
G7
Singer Park
WEST COAST RD
ORCHID RISE
WAITAKERE VIEW RD
AGATHIS RISE
Glen Eden Station
Glen Eden Library
Glen Eden Playing Ground
Harold Moody Reserve
Duck Park
Waterview Reserve
Levy Reserve
Brandon Walk
GLENORCHY ST
BRANDON RD
CLAYBURN RD
KAMARA RD
ROSIER RD
ROCK PARADE
WOODVALE RD
WOODGLEN RD
AMBLER AVE
GLENDALE RD
EVANS RD
BAYDY RD
PISCES RD
BOWERS RD
GLENMALL PL

Parrs Park to Sunnyvale (G1)



Glen Eden Town Centre plan (2013)

Transport projects are a significant part of the plan:

- includes footpath and streetscape upgrades for West Coast Road, Glenview, Glendale, Glenmall, Captain Scott Road
- better connection between West Coast Rd and Glenmall Place.
- walking and cycling – cross-over with greenways plan. Connections to key transport, recreational and community resources.
- carparking
- street lighting

Local Area Plans

- Muddy Creeks (Parau, Laingholm, Waima, Woodlands Park), Te Henga, Henderson Valley, Oratia, Waiatarua.
- common transport themes of maintaining rural / informal roadsides road safety; make it safer for walking.
- identify projects for investigation.

Muddy Creeks Plan

Objective

4. Advocate for the development of efficient and appropriate transport options.

Key action	How might it be done?	By whom?
1. Advocate for more convenient and efficient public transport services to the area.	• Seven day/week, day and evening bus services to Woodlands Park and Laingholm, connecting to Titirangi and New Lynn/Glen Eden to access regional train and bus services. • Consider the use of smaller shuttle buses (e.g. 8 to 20 seats) more suitable to narrow windy roads in the area. • Investigate bus services to Parau and beyond. • Support ways to encourage car-pooling.	• Auckland Transport • Community providers.
2. Advocate for appropriate measures to improve vehicle and pedestrian safety along local roads.	• Investigate changes to speed limits in the area or other means of slowing down traffic along key routes. *e.g Huia Road in Parau (Huia end), between Lower Nihotupu Dam and Victory Road, between Titirangi roundabout and Woodlands Park Dairy, Laingholm Drive.* • Develop continuous footpaths along key walking routes and near schools. *e.g. along Huia Road between Parau and Victory Road, near Laingholm School and Woodlands Park School, along Huia Road between Armour Road and Rauhuia Crescent (Huia end of Parau).* • Investigate ways to provide safer walking environments along other roads, in consultation with local communities. *e.g. Kauri Point Road, Western Road, Lookout Drive, Tāne Road, Fawcett Road, Dorothy Road, Waimā Crescent.*	• Auckland Transport • Auckland Council • schools • community groups • local residents.
3. Advocate for improved facilities for cyclists and other road users.	• Investigate installing secure bike racks and shelters at key locations of the bus routes. • Investigate ways to provide for safe cycling along key cycling routes. • Identify and investigate areas where the safety of other road users may need to be better provided for (e.g. horse riders near Owen's Green, mobility scooters around community hubs).	• Auckland Transport.

Te Henga and Waitakere River Valley LAP

ROADS AND WALKWAYS

Key actions	Who will lead? Who else may be involved? What funding may be available?	When could it start? (subject to resources being available)	Notes on implementation
Outcome 14: Our winding and narrow rural roads become safer for vehicles, pedestrian, cyclists and horse riders			
14.1 Investigate safety issues along Bethells Road and Te Henga Road	Local Board advocacy, together with community and Auckland Transport AT **AT capital and operational funding (Road corridor operations and maintenance)**	2015	• Manage parking near Lake Wainamu and Te Henga (Bethells Beach) so that safe vehicle and pedestrian access is maintained at all times along Bethells Road. • Request for investigation of safety issues to AT through the Local Board. The investigation should include consideration of: – intersections of Bethells Road with its side roads: investigate ways to improve sightlines, reduce speed and/or raise awareness along Bethells Road. Intersections which have been identified as presenting safety problems along Bethells Road include: Te Aute Ridge Road (East and West), Long Road, Falls Road, Erangi Place and Tasman View Road – chevron signs at Miti Point: visual impact on some people (blinding) at night – visibility at Waiti Bridge (should the giveway sign be moved to the other side of the bridge, or the handrail design rectified?) – signage and visibility when approaching the bridges near Pae-o-te-Rangi – double yellow lines (changes required in some portions, inconsistent use) – arrow markings to encourage people to "stick to their side" – pedestrian crossing of Bethells Road at Mosquito Lane.

Te Henga LAP (continued...)

Key actions	Who will lead? Who else may be involved? What funding may be available?	When could it start? (subject to resources being available)	Notes on implementation
14.1 Investigate safety issues along Bethells Road and Te Henga Road (continued)	Led or advocated by the Local Board, together with community **AT capital and operational funding (Road corridor operations and maintenance)**	2015	- portions of Bethells Road near the wetland and of Tasman View Road where subsidence is creating a safety issue - additional pull over areas to avoid vehicles overtaking. • Other options which may be investigated include: - placing signs (designed by local residents if possible, such as the 'Free Range Kids' surf board) along the road to acknowledge other road users: pedestrians, horses and cyclists. Minimise the number of signs, only if considered necessary for safety and designed to fit in with the area and contribute to its character - informing drivers of school bus timetable - the Local Board may advocate for reducing the speed limit for the whole length of Te Henga Road and Bethells Road (70km/h).
14.2 Investigate and implement ways to improve safety for pedestrians and cyclists	Led or advocated by the Local Board, together with community and AT **AT Community Transport or Local Board transport funding (currently unfunded in LTP) or community funding and resources**	A long term project that may start from 2015	• Investigate areas where road width, surfacing and line markings may be changed to provide safer cycling on the shoulder along Bethells Road and Te Henga Road. As a priority, consider uphill and windy sections of the road. • Form walking tracks along the road corridor along Bethells Road and Te Henga Road. • As a priority, form a walkable berm between Mosquito Lane and Waiti Bridge. • Continue consultation on ways to implement this action and to develop appropriate design. • Need to ensure berms are not be used for parking.

Oratia LAP

A42.	Develop and implement a design for Oratia domain.
A43.	Promote a 40km speed restriction around the school and village.
A44.	Introduce a gateway structure or statement to reinforce the rural and historical identity of the village.
A45.	Establish boulevard street trees to enhance the village's rural character distinct from metropolitan Auckland.
A46.	Upgrade and establish cycleways and footpaths that serve the school and village.
A47.	Develop design guidance for the rural village.
A48.	Where footpaths are not available, work toward the maintenance of areas of roadside grass berms that allow comfortable pedestrian use.

Henderson Valley LAP – transport actions

A40. Upgrade and maintain existing road-side footpaths and/or cycleways, and where appropriate establish new ones with a priority on those that connect and serve the school and the residential enclaves, and connect with the urban area.

A41. Where footpaths are not available or appropriate, work toward the maintenance of roadside berms to allow safe and comfortable pedestrian, cycling and riding use.

A42. Progressively establish the Foothills Walkway Concept though the following actions:

- Maintaining and improving existing footpath connections;
- Maintain roadside berms to facilitate safer walking access where no footpaths exist;
- Reducing vehicle speed limits where appropriate, including enforcement of existing limits;
- Negotiating and securing public access to/across private land by agreement, purchase, and/or at the time of subdivision.

(viii). maintain rural roadscapes and landscapes;

(ix). manage building design and appearance where widely visible;

(x). protect and enhance remnant indigenous vegetation, and connect these remnants with restored and replanted stream riparian margins;

(xi). where appropriate, establish rural public walking trails, and

Captain Scott Road – local board resolutions (July 2022)

Resolution number WTK/2022/92

MOVED by Member M Allen, seconded by Member M Clayton:

That the Waitākere Ranges Local Board:

a) …….

e) recommend Auckland Transport considers the following responses to the trial and report back to the local board in the new term:

i) permanent traffic calming on Captain Scott Road between Savoy Road and the Oates / Wilson Road roundabout to create a safer road environment for all road users and low vibration for residents

ii) options for a permanent cycleway to extend the Waikumete Stream shared path to Glen Eden Town Centre, including:

A) on the same route, with a widened shared path using the footpath and berm on one side of the Captain Scott Road

B) continuing to investigate connecting the Twin Streams shared path to Harold Moody and Duck Park.

iii) options to improve safety along the length of Captain Scott Road, paying particular attention to the safety for schools at the intersection with Atkinson Road

iv) feedback from the trial should be used to inform design options, along with further engagement with the community and residents……..

CARRIED

LBCTF - resolutions (Dec 2021)

Reference	Projects	Activity	Amount allocated
WR2021–01	Parrs Park to Sunnyvale shared path	investigate and consult	$15,000
WR2021–02	Glen Eden Town Centre: Verdale Circle to Glendale Road walkway	construct	$600,000
WR2021–05	Candia Road, Swanson / Henderson Valley (Part 1) - pedestrian safety	further investigate	$20,000
WR2021–05	Candia Road, Swanson / Henderson Valley (Part 2) – parking restrictions outside Henderson Valley Scenic Reserve	further investigate barrier options & construct	$20,000
WR2021–06	Glen Eden Train Station to Upper Waikumete Stream Walk and Cycleway	investigate and consult	$20,000
WR2021–11	79 Glendale Rd – raised table crossing	construct	$200,000
WR2021–12	Titirangi / South Titirangi Road intersection pedestrian safety improvements	construct	$98,250
Total			$973,250

a) note that this leaves $326,240 from the 2021-2023 Local Board Capital Transport Fund. The local board requests a report back by April 2022 to enable allocation of the remaining funding to a second round of projects, or next stages of projects.

b) request that Auckland Transport investigate options for improving bike parking at Glen Eden train station, and report back to the local board.

c) request Auckland Transport engage with local boards on its work to develop an electric vehicle charging strategy. We see town centres as a good-match for electric vehicle charging, as people can do the shopping, go to a café, visit the library for about the same time it takes to charge a car.

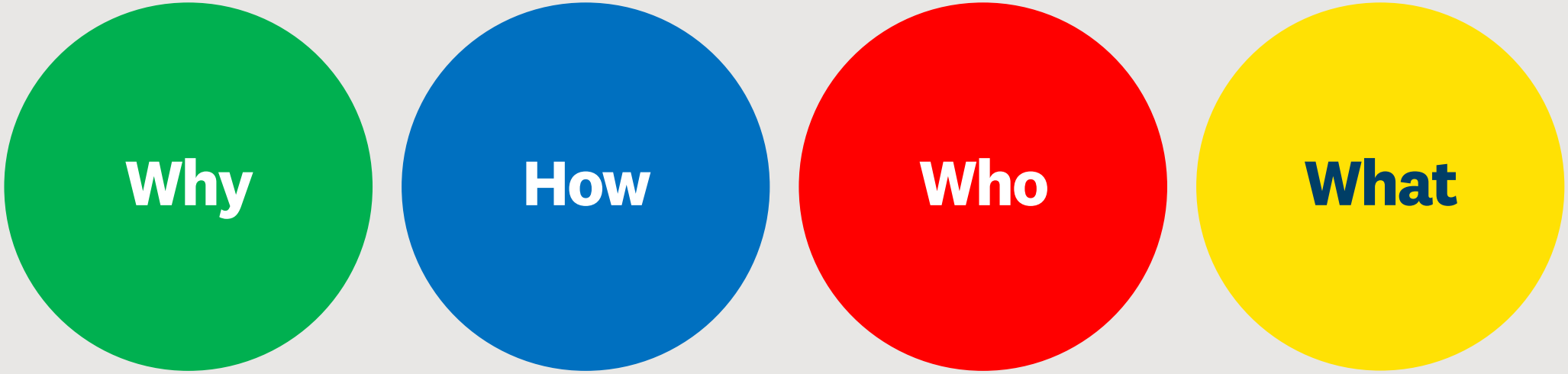
d) recommend the pedestrian crossings at Swanson Road train station and 40 Atkinson Road, Kaurilands, be prioritised for funding from the Auckland Transport work programme in the coming year.

Auckland Council food scraps/rukenga kai collection service

Wāitakere Ranges Local Board

February 2023

Workshop overview



Why collect food scraps? What are the benefits?

How residents will use the service & how collections will happen

Who will be receiving the service & when

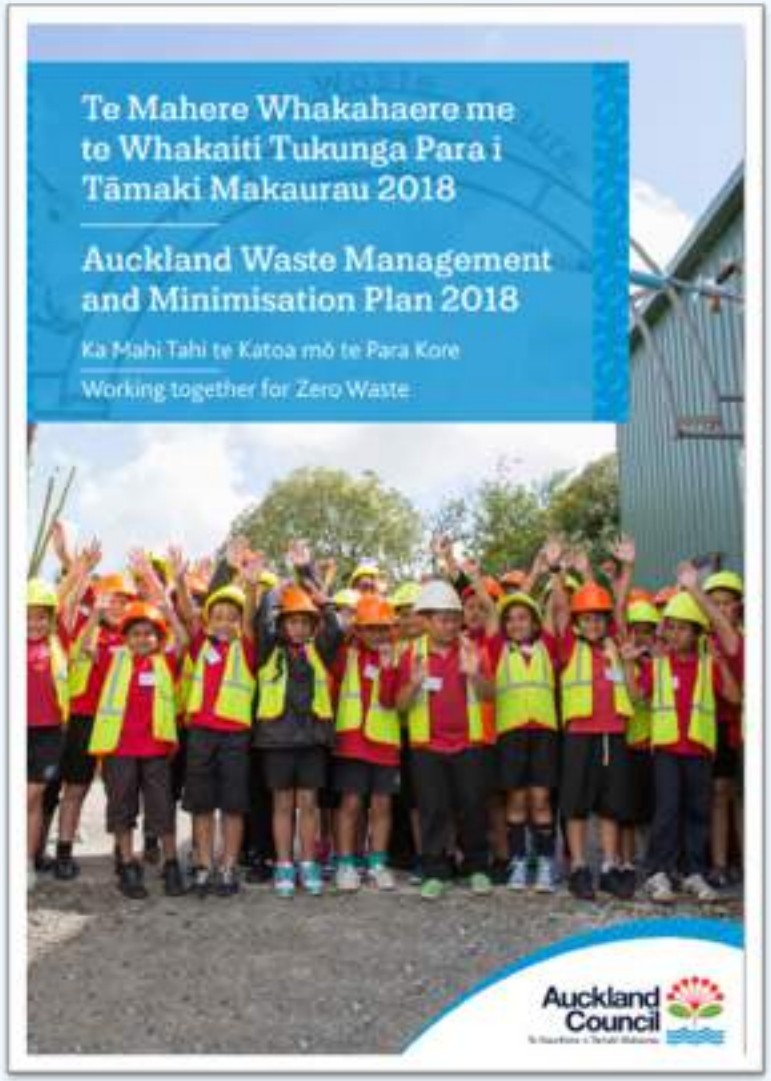
What we are doing to support residents to participate

Auckland Council Waste Policy

Waste Management and Minimisation Plan 2018

PRIORITY ACTION 7

Deliver the domestic kerbside collection of food scraps



Why collect food scraps?

Food scraps are a resource

reduce CO_2 emissions by 18,000 tonnes

divert 40,000 tonnes food scraps

We're catching up to most of the world!

Where are our food scraps going?

How to use the service

How to use the service

1. Place food scraps into kitchen caddy

2. Empty food scraps into kerbside bin

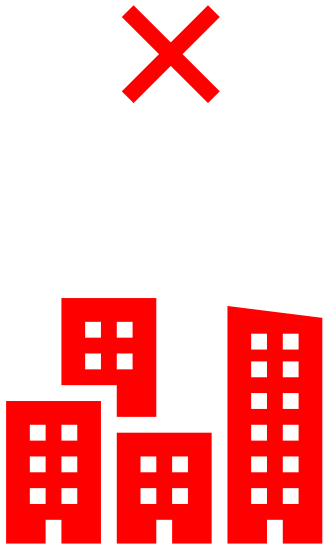
3. Put bin out for collection

How will collections happen?

Who will receive the service?

Residential

Targeted rate



City centre, rural, Hauraki Gulf Islands

Commercial

Who will receive the service? Waitākere Local Board

13,750 residential properties

=

1,000T food scraps diverted per year

=

CO_2

465T carbon avoided per year

When will the service be rolled out? Wāitakere Ranges Local Board

Bin deliveries from
March/April

Collections commence from
April/May

Wāitakere Ranges Local Board

What we are doing to support residents?

COMMS AND MARKETING

CUSTOMER SERVICES

MONITORING AND COMPLIANCE

EDUCATION AND COMMUNITY ACTIVATION

How can you support your community?

GIVE THE SERVICE A TRY!

INSPIRE FRIENDS, NEIGHBOURS & WHANAU

STAY INFORMED

SHARE INFO VIA YOUR NETWORKS

Auckland Council food scraps/rukenga kai collection service

Waitākere Ranges Local Board

February 2023

Memorandum

1 February 2023

To: Waitākere Ranges Local Board

Cc: Adam Milina - Local Area Manager, Brett Lane - Senior Local Board Advisor, Natasha Yapp - Local Board Advisor, Terry Coe – Project Delivery Manager

Subject: Food scraps/rukenga kai collection services rollout

From: Terry Coe – Project Delivery Manager, Waste Solutions

Contact information: Hana Perry hana.perry@aucklandcouncil.govt.nz

Purpose

1. To provide an update on Auckland Council's food scraps/rukenga kai collection service rollout, which will be delivered in phases across urban mainland Auckland from April 2023.

Summary

2. Auckland Council's weekly food scraps collection service is due to be rolled out to 520,000 households across most of urban mainland Auckland, with the first collections planned for April 2023 (see map and schedule in Attachment A).
3. With this project, Auckland Council is delivering one of the largest-scale food scraps rollout undertaken in Australasia. The Governing Body approved the introduction of a food scraps collection service and targeted rate through the Long-term Plan 2018-2028 on 31 May 2018 (resolution GB/2018/91).
4. The name of the service is rukenga kai. It means food that is cast onward so it will enable the promotion of food scraps/rukenga kai as a resource rather than rubbish.
5. Each residential home within the collection area will receive a 23-litre kerbside bin, a kitchen caddy, a starter set of compostable liners and an information booklet. The rollout will be supported by targeted and general communications in multiple languages, direct community education and bin monitoring.
6. The collected food scraps will be transported to a purpose-built processing plant. The plant uses anaerobic digestion technology to break food waste down into highly valuable by-products (biogas, renewable energy and regenerative fertiliser). This will be used to grow food. Once fully operational, the plant will process 75,000 tonnes of organic material each year, producing 185,000 gigajoules of energy in the form of biogas and 200 tonnes of nitrogen in the form of biofertiliser.
7. The food scraps targeted rate for the full 2022/2023 year is set at $71.28 per eligible property (where the service is available).
8. The current food scraps rollout only includes residential properties in the urban area of mainland Auckland. The service is expected to be expanded as new urban developments come on board. Staff are also exploring organic diversion solutions for residential properties outside the rural-urban boundary, and within the Hauraki Gulf Islands and a small part of Auckland's city centre.
9. Food scraps collections will commence across urban mainland Auckland according to the schedule provided in Attachment A. Bin deliveries will start in March 2023 and collections in April 2023.

Context

10. Food scraps make up approximately 45 per cent of kerbside waste that is sent to landfill in Auckland measured by weight. Initiatives are therefore needed to reduce the amount of food scraps going to landfill.

11. A key deliverable of Auckland Council's first Waste Management and Minimisation Plan in 2012 was the introduction of a household food scraps collection service for urban areas of Auckland. A collection service for approximately 520,000 urban households will initially divert around 39,000 tonnes of food scraps per annum. Over time, this is expected to increase to 75,000 tonnes per annum.

12. In March 2018, the council sought feedback on a food scraps collection funded by a targeted rate through the consultation on the Waste Management and Minimisation Plan 2018 and the Long-term Plan 2018-2028. The Environment and Community Committee supported the collection through adoption of the Waste Plan on 12 June 2018 (resolution ENV/2018/70), and the Governing Body approved the introduction of a targeted rate through the Long-term Plan 2018-2028 on 31 May 2018 (resolution GB/2018/91).

13. Trials of food scraps collection have been underway in the North Shore and Papakura. A small area of the North Shore, covering around 2,000 properties, has had a food scraps collection since 2014. Around 18,000 properties in Papakura have had a food scraps service since March 2018. These areas will soon be integrated into the region-wide service.

14. Procurement for the region-wide service began in 2019 for processing, collections, bins and compostable liners. The service rollout was delayed by 18 months due to COVID-19-related labour shortages and supply chain issues. It is now due to be rolled out in phases across urban mainland Auckland from April 2023.

15. Through engagement with mana whenua and with the official Council Te Reo Māori translation process it was decided that rukenga kai will be the name of the service. This translates as food that is cast onward so it will enable the promotion food scraps/rukenga kai as a resource rather than rubbish.

Discussion

How residents will use the service

16. Approximately one month prior to the start of collections, each residential home within the collection area will receive:

    - a kerbside bin (23-litre)
    - a kitchen caddy
    - a starter set of Auckland Council compostable liners
    - an information booklet.

17. Residents will place their food scraps into their kitchen caddy (or another receptacle of choice), empty their caddy into the kerbside bin and put their bin out for collection on their normal rubbish day every week.

18. Auckland Council compostable liners can be used to help remove odours and keep caddies and bins clean, but using liners is not compulsory. Instead, caddies or food scraps bins can be unlined or lined with paper bags, newspaper or paper towels. If liners are used, Auckland Council pink liners are preferred.

19. The pink liners come in rolls of 20 at a recommended retail price of $2.80 (pricing may vary between retailers). They are available to purchase at Auckland Council service centres, libraries, selected supermarkets, dairies and convenience stores.

20. Multi-unit properties like apartments and retirement villages are likely to need a different service. Alternative services have been trialled for some properties in the North Shore and Papakura area. Residents share larger wheelie bins, rather than having their own individual kerbside bins. Staff are visiting these properties to identify how best to provide the food scraps collections.

Support for residents

21. To make sure that residents are supported to use the service, the council is providing direct and indirect assistance through a variety of channels:

- **Customer services:** Providing information via Auckland Council's website and assisting the public via existing channels such as the contact centre.
- **Education and community activations:** Community partners and internal Community WasteWise team will be reaching communities directly.
- **Communications and marketing:** The marketing campaign will use all media channels (radio advertisements, newspaper, bus shelters, electronic billboards) geotargeted to the rollout areas, alongside a set of household materials provided with the bin to remind residents that the service is starting and encourage continued participation. Messaging will also be translated into te reo Māori, simplified Chinese, Samoan, Tongan, and Korean. Staff are collaborating with community partners who can provide culturally and linguistically appropriate engagement to reach our diverse communities through existing communication channels.
- **Monitoring and enforcement:** Staff are responsible for monitoring health and safety and responding to service issues.

Rollout schedule

22. The food scraps will be processed in an anaerobic digestion plant. Anaerobic digestion processes use bacteria which need to be 'trained' to eat food scraps. This means that the food scraps service cannot start all at once, instead areas need to be added in slowly to keep the system stable.

23. The region has been split into groups which will start the rollout at different times during 2023. The new areas that will start receiving this service during the 2022/2023 financial year are the former Waitākere City Council area and the former North Shore City Council area where the service is not already available. The former Manukau, Auckland Central, Rodney and Franklin Council areas will start receiving the service in the first part of the 2023/2024 financial year. Please refer to Attachment A for a map and schedule for the rollout groups. There is also some information available online.

Properties outside the rollout

24. The food scraps service will initially only be available to residential properties in the urban area of mainland Auckland. The service is expected to be expanded as new urban developments come on board. Staff are also exploring future solutions for residential properties outside the rural-urban boundary, and within the Hauraki Gulf Islands and a part of Auckland's city centre.

25. Commercial properties (including restaurants and schools) will not be a part of the rollout. Staff are exploring how the service might be expanded to commercial properties in the future. In the meantime, staff recommend that these organisations continue to consider ways to reduce their waste and apply to the Waste Minimisation and Innovation Fund for project funding.

Food scraps service targeted rate

26. The food scraps targeted rate applies to every separately used or inhabited part of a residential property within the service area. The annual targeted rate is currently set at $71.28 per separately used or inhabited part of a residential property in 2022/2023 for the serviced areas.

27. The service and the targeted rate were first introduced in Papakura in 2018/2019 and then parts of North Shore in 2019/2020. From March 2023, the council is extending the food scraps service to cover most of Auckland. The new areas that will start receiving this service in the 2022/2023 financial year will be charged the food scraps targeted rate on a pro rata basis – with a lower amount that reflects the number of months the service is available to them during the 2022/2023 rating year.

28. Areas that will only start to receive the service after 30 June 2023 will not be charged for the service in the 2022/2023 financial year. Once all areas are receiving the service, all areas will be charged the same rate annually as set out in each year's annual budget.

29. Table 1 below shows the targeted rate amount proposed for 2022/2023 for each rollout group with a different service start date. The targeted rate will apply to all properties including those that already undertake their own composting. It is impractical to administer a system exempting these properties from the service (and associated rate) due to the cost of checking compliance.

Table 1 Targeted rate for properties receiving the service within the 2022/2023 financial year

Rollout Group	Scheduled start date of food scraps collection (2023)	Targeted rate for 2022/2023 (incl. GST)
Waitākere Group A	April	$23.76
Waitākere Group B	May	$17.82
North Shore Group A	May	$11.88
North Shore Group B	May	$5.94
North Shore Group C	June	$5.94

Next steps

30. Collections will commence across urban mainland Auckland as per the schedule provided in Attachment A.

31. All eligible residents will be receiving general communications and marketing about the service from March 2023. Residents in each rollout group will receive targeted communications and marketing about the service close to the time that they receive their bins.

32. Residents will start receiving their bins approximately one month before collections begin in their rollout group.

33. Waste Solutions staff will attend workshops with relevant local boards before rollout commences in each area to provide further information about the service.

Attachments

Attachment A: Auckland Council food scraps collection services rollout schedule and map

Attachment A: Food scraps collection rollout schedule and map

Auckland Council food scraps collection services rollout schedule per local board

Local Board	Rollout Group	Bin Deliveries (2023)	Collections (2023)
Henderson-Massey	Waitākere Group A	March	April
	Waitākere Group B	April	May
Waitākere Ranges	Waitākere Group A	March	April
	Waitākere Group B	April	May
Whau	Waitākere Group A	March	April
	Waitākere Group B	April	May
	Auckland Central Group A	July	September
Upper Harbour	Waitākere Group A	March	April
	North Shore Group A	April	May
	North Shore Group B	May	May
	North Shore Group C	May	June
Hibiscus and Bays	North Shore Group A	April	May
	North Shore Group B	May	May
	North Shore Group C	May	June
	Rodney	September	October
Kaipātiki	North Shore Group B	May	May
	North Shore Group C	May	June
Devonport-Takapuna	North Shore Group B	May	May
	North Shore Group C	May	June
Howick	Manukau Group A	September	October
	Manukau Group B	September	October
Ōtara-Papatoetoe	Manukau Group A	September	October
	Manukau Group B	September	October
Manurewa	Manukau Group A	September	October
	Manukau Group B	September	October
Māngere-Ōtāhuhu	Manukau Group A	September	October
	Manukau Group B	September	October
	Auckland Central Group B	June	July
Albert-Eden	Auckland Central Group A	July	September
	Auckland Central Group B	June	July

Puketāpapa	Auckland Central Group A	July	September
	Auckland Central Group B	June	July
Waitematā	Auckland Central Group A	July	September
	Auckland Central Group B	June	July
Maungakiekie-Tāmaki	Auckland Central Group B	June	July
Ōrākei	Auckland Central Group B	June	July
Rodney	Rodney	September	October
Franklin	Franklin	October	November

Auckland Council food scraps collection services rollout groups