Date: Thursday 20 September 2018
Time: 3.30pm
Meeting Room: Waimauku War Memorial Hall,
Venue: 24 Waimauku Station Road,
Waimauku

Rodney Local Board Parks and Recreation Committee

OPEN ATTACHMENTS

ATTACHMENTS UNDER SEPARATE COVER

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Note: The attachments contained within this document are for consideration and should not be construed as Council policy unless and until adopted. Should Councillors require further information relating to any reports, please contact the relevant manager, Chairperson or Deputy Chairperson.
Attachment A

Item 13
Executive Summary

Overview

This report presents the feasibility assessment of the greenway path, Kumee River – Huapai to Kumee Town Centre (6) prioritised by the Rodney Local Board various routes identified in the Kumee, Huapai, Waimauku and Riverhead Greenways Plan.

Huapai and Kumee have separate rural town centres, however, are very close in proximity to each other (1.5 km). Currently, the only link between them is via Main Road an extremely high traffic volume road which is SH16 upon entering and leaving the townships. Kumee River meanders along the northern edge of the two centres and is located at the base of the hill sloping up to Koraha Road. For the most part, the proposed route is positioned within a natural esplanade reserve with a fairly level topography featuring a mix of native trees, exotic pine and weed species. The urban boundary alongside the esplanade is largely occupied by light industrial businesses, some of which encroach directly into the river margin. The river is currently clogged with vegetative debris and discarded waste from the surrounding urban environment.

A river esplanade connecting the town centres will require a path approximately 1.3m in length. A shared pathway offers a safer, more pleasant connection between the Huapai and Kumee town centres and has the potential to connect with the existing pedestrian bridge at Waiaka Lane. Huapai River Reserve is attached to the SW area of Huapai Town Centre and travels alongside the Huapai River. Presently a modest 1.8m wide walkway traverses the park from two locations on Main Road/SH16 to Craka Road. To compliment the proposed greenway along Kumee River, it is suggested to widen this existing walkway to a 3m wide shared path.

The feasibility work leads on from the Rodney Greenways Plan and is identified as a priority route within the larger greenway network. The proposed greenway has been organised into sections that allow for a staged construction implementation to suit funding availability.

Proposed Scope Statement:

- **Section 1 - Craka Road to New World:** 30m wide concrete path (1.5km long) including vegetation clearance and land remediation. Proposed riparian planting
- **Section 2 - Main Road to Esplanade Reserve:** 1.2m wide concrete footpath within AT road corridor (100m long)
- **Section 3 - Craka Road to Main Road:** 30m wide existing concrete path to 3.0m (385m long)

Key Findings

- The proposed priority route is a shared path linking the Esplanade Reserve, Kumee River Huapai, to the Kumee Town Centre that provides a safer, more pleasant connection between the Huapai and Kumee town centres than the existing narrow footpath along busy SH16.
- The feasibility study has identified that subject to various constraints the greenway paths as scoped below provide significant benefits measured against the design principles and is feasible to progress further subject to securing funding.
- The feasibility of the Kumee River greenway project is dependent on the integration and interface with the Healthy Waters Kumee River floodway project.
- The Greenways Network for Kumee River Huapai: to the Kumee Town presents a series of routes intersecting throughout the neighbourhoods of both townships, including a circuit of the rural urban boundary and a series of bride paths.
- The proposed routes extend into land earmarked for future urban growth; providing a long-term vision creating pedestrian/cycle connectivity between established and future urban neighbourhoods. River corridors and local streets have been predominantly chosen as future greenway routes providing links to recreation areas, local services and amenities.
- Council ownership of the esplanade reserve along the route of the proposed greenway is interrupted by one privately owned property extending to the river edge. In order to make the river path connection feasible an easement is required subject to landowners permission as the northern side of the river inclines steeply and is unsuitable.

Engagement

Engaging with the community and mana whenua has been an important part of the process and one of the key foundations to developing the Kumee/Huapai communities. The continuation of the engagement process alongside professional knowledge has been an important contribution to the shared pathway proposals presented in this feasibility study.

Design Principles & Strategy Alignment

The feasibility study aligns with both the Kumee, Huapai, Waimauku and Riverhead Greenways Plan and the Rodney Local Board Plan 2017. The design principles have been formulated from a collaboration of best practice walking and cycling standards, the Auckland Design Manual, and the Local Path Design Guide (March 2017). The design framework is based on the following principles; they must be safe, connected, accessible, comfortable and enabling. Together they are designed with the Te Aranga Design Principles by providing more fine-grained direction to the development of Victoria Street greenway.

Next Steps

- The next steps after the feasibility study phase include detailed site investigations, design, landowner approval and any regulatory and/or consenting requirements to be met before physical works can commence.
- Further investigations required:
  - Marine and Terrestrial Ecology
  - Survey
  - Geotechnical
  - Land contamination testing
  - Archeology
  - Arnot & Architectural
  - Cultural Values Assessment
  - Hydrology and Flooding Assessment
  - Coastal Process Assessment
  - Funding considerations
- Design and consent phase:
  - Developed design
  - Assessment of environmental effects
  - Resource and building consents
  - Landowner approvals
  - Construction documentation
- Construction Considerations:
  - Staging actions
  - Construction timelines and seasonal considerations
- Explore negotiating access rights through the property via an easement or acquisition with the landowner.
- Continue to work closely with Healthy Waters regarding how the Kumee River greenway can be integrated with the Kumee River floodway project.
- Continue to work with the public project partners and key stakeholders throughout the Kumee River greenway design process to ensure that there is a shared understanding of the risks and opportunities associated with the site and also to ensure that their concerns and aspirations are consistently understood and considered.
Attachment A

Item 13
1.0 Purpose + Background
1.1 Purpose

The purpose of this document is to analyse the feasibility of developing a walkway connection from Huapai to Kumei Town Centre, which is identified as one of the priority Greenway routes suggested in the Rodney Greenways Plan.

The Rodney Greenways Plan presents a vision of an entire network of greenways connecting town centres, schools, public facilities, recreation areas and public transport hubs. This is a long-term aim of significantly improving walking, cycling and ecological connections within and between the urban and rural environs of the Rodney Local Board area.

The purpose of the Rodney Greenways Plan was to provide a thorough exploration of places and destinations which would greatly benefit from walking and cycling connections. The route alignments have been clearly identified in the Greenways plan, however, a detailed feasibility study is required to form logical solutions.

The purpose of the feasibility study is to look at potential alignments of the proposed pathway, and the range of potential issues and opportunities that may arise from any such alignments. This study presents a strategy of implementation, indicating the details necessary to deliver a comprehensive greenway path.
1.2 Background | Rodney Greenways Local Path Plans

In 2014 the Rodney Local Board released ‘The Rodney Local Board Plan’ which contained a community driven set of aspirations, goals and outcomes. Based on the vision for wider Auckland expressed in the Auckland Plan 2012, the Rodney Local Board presented a vision to ‘create the world’s liveliest city at local level’.

Engaging with the Rodney community has been an important process and one of the key foundations to developing the Plan. Applying community feedback with professional knowledge resulted in key initiatives being identified to guide and facilitate the delivery of Rodney Local Board’s vision. Although many issues were identified during community consultation, a recurring theme was to create a healthy, safe and well-connected environment to live work and play in. It was identified that the creation of a greenways plan would be a tangible way to achieve many of the goals and outcomes to successfully deliver the aspirational vision for Rodney.

“Auckland’s greenways plans are a series of visionary networks being worked on by local boards. Their long-term aim is to greatly improve walking, cycling, recreational and ecological connections across the region” (Auckland Council).

The Rodney Local Board Plan 2011 communicates a re-commitment to their aspirations, goals and outcomes set out in 2014. Key initiatives have progressed and been refined to integrate the growth opportunities Rodney has experienced through Auckland’s population expansion.

Background Rodney Greenways - Local Path Plans

- Whitianga
- Kumeu, Huapai, Wairau and Riverhead
- Puhinui to Pakiri

The plans are based on engagement with the local communities to identify the aspirations for walking, cycle and bridle connections in their local areas. Various workshops were held during the development of the plans, following initial research and GIS mapping, local board and internal and external agency stakeholder workshops.

The three plans introduce 44 routes that have been identified for the communities in Rodney.

Financial constraints and restricted time frames required the Local Board to identify which of these routes would be most desirable and valuable for each community, in addition to considering which would be most suitable to develop as a foundation project.

Greenway Prioritisation

Given the significant number of priority routes identified, a detailed exercise was undertaken to determine the routes where the budget could provide the greatest benefit.

The process for identifying the four routes to receive funding was worked up with the Rodney Local Board Transport, Infrastructure and Environment Committee on 3 August and 12 October 2017.

During these works a set of criteria for prioritising Rodney Greenways priority routes was tabled for feedback from board members.

These criteria were used to develop a scoring matrix to prioritise the adopted greenways plan priorities for allocating budget towards detailed feasibility. During the development of the scoring matrix the opportunity presented itself to centralise all adopted greenways plan priority route information into one document – Rodney Greenways/Priority Matrix.

The matrix allowed for the consideration of a broader set of criteria and embedded links to priority route maps.

Of the 44 proposed routes, four priority projects were recommended by Auckland Council staff to receive funding from the $250,000 allocated by the Rodney Local Board to plan for the delivery of the adopted local plan.
1.3 Background | Priority Route 6 Description *(Kumeu River Greenway)*

The prioritised greenway presented for this study is a shared path linking the Esplanade Reserve to the Kumeu Town Centre. Huapai and Kumeu have separate small rural town centres, however, they are within 1.5 km in proximity to each other. Currently the only link between them is via Main Road, an extremely high traffic volume road which is SH165 upon entering and leaving the townships.

Kumeu River meanders along the northern edge of the two centres and is located at the base of the hill sloping up to Kona Road. The majority of the proposed route is positioned within a natural esplanade reserve with a fairly level topography featuring a mix of native trees, exotic pine and weed species. The urban boundary alongside the esplanade is largely occupied by light industrial businesses, some of which encroach directly into the river margin.

The river is currently cluttered with vegetative debris and discarded waste from the surrounding urban environment. A river esplanade connecting the town centres will require a path approximately 1.3m in length.

A shared pathway offers a safer, more pleasant connection between the Huapai and Kumeu town centres and has the potential to connect with the existing pedestrian bridge at Wea Lane.
### Prioritised Greenway Projects

<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
<th>Constraints</th>
<th>Opportunities</th>
<th>Budget Requirements (Pick one)</th>
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</thead>
<tbody>
<tr>
<td>Epsom reserve</td>
<td>Epsom reserve to Epsom Town Centre via the reserve.</td>
<td>- Ensuring the reserve can remain a vibrant and attractive area for the community.</td>
<td>- Suitable for community projects such as picnic spots and playgrounds.</td>
<td>Additional green space options.</td>
</tr>
<tr>
<td>Gumtree reserve</td>
<td>Gumtree reserve to Gumtree Town Centre via the reserve.</td>
<td>- Ensuring the reserve can remain a vibrant and attractive area for the community.</td>
<td>- Suitable for community projects such as picnic spots and playgrounds.</td>
<td>Additional green space options.</td>
</tr>
<tr>
<td>Kumeu reserve</td>
<td>Kumeu reserve to Kumeu Town Centre via the reserve.</td>
<td>- Ensuring the reserve can remain a vibrant and attractive area for the community.</td>
<td>- Suitable for community projects such as picnic spots and playgrounds.</td>
<td>Additional green space options.</td>
</tr>
</tbody>
</table>

*Note: Additional details and specifications are available in the full document.*

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**Map of Proposed Greenway Projects**

*Detailed map showing the proposed routes and locations of the greenway projects.*

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**Budget Requirements**

- Additional green space options
- Rehabilitation of existing pathways
- Construction of new pathways
- Installation of lighting and signage
- Planting of native vegetation
- Maintenance and upkeep

*Further details and specifications are available in the full document.*
2.1 Consultation Background

Engagement and Consultation History

The Greenways Plan was developed through a three-phase process involving consultation, workshops, and setting up a working party to monitor and review the plan as it developed.

After a period of desktop analysis, a high-level network of walking and cycling connections were mapped out. These provided an understanding of the broad landscape pattern within Rodney and then used to guide the development of the Greenways Plan.

During this phase, workshops were held with key stakeholders including Mātauranga Whenua, Auckland Transport, and community groups. The workshops were designed to inform participants about the process and provide an understanding of the key concepts and ideas.

Phase 2 involved further analysis that led to the development of draft routes. These were placed into the Auckland Transport Strategic Plan and Auckland Transport's future facilities and network plan.

Community engagement occurred through a two-phase approach. The first phase involved a targeted consultation process with key community groups, while the second phase involved the wider public through Auckland Transport's online consultation process. Within the consultation period, a series of workshops and a public open day were held to gather feedback on proposed path segments.

The consultation period was from September 2018 to December 2018, and the consultation report was released in January 2019. The report was presented to the Rodney Local Board Parks and Recreation Committee and was also presented to the Auckland Transport Committee. The final report was presented to the Auckland Transport Board in March 2019.
2.2 Engagement

Kumeu Greenways Feasibility Study Engagement Plan

Based on our understanding of the wider process of developing, design and implementing a greenway, feedback from Council staff, as well as the nature of the Feasibility Study a formal consultation with the wider community was not undertaken. A recent and in-depth consultation process was run by Auckland Council during the development of the Rodney Greenway Plan (see Consultation Background section) and formal consultation will be required during the (subsequent) design phase of the greenway. Furthermore, given that the Feasibility Study is not providing particular outputs that require formal consultation is a continuation of the engagement process recently completed wider community re-engagement was deemed neither desirable nor productive.

Therefore the engagement plan involved working with local iwi who were interested, various Auckland Council family, internal stakeholders, and key community stakeholder groups and individuals who have particular local knowledge, insights and passions related to the greenway and the site. This engagement was critical to understanding various aspects of the site and the wider social, cultural and political landscape in which the greenway is nested.

Mana Whenua Engagement

Mana Whenua were briefed on the Rodney Greenways Feasibility Study at the NorthWest Mana Whenua Hu run by Auckland Council in Crewe on 4 April 2018. Interested iwi were invited to contact the consultants directly to express their interest in being involved in the project. Ngati Whaitua o Kairapa formally expressed their interest in the Kumeu River Huapai, to the Kumeu Town greenway. A site walkover with Pani Cleeson, representing Ngati Whaitua o Kairapa, of the proposed Kumeu river Huapai, to the Kumeu town greenway path was conducted on Monday 7 May. A number of environmental and pedestrian access matters were identified during this visit including:
- Pedestrian safety through thick vegetation on proposed route
- Weed management
- Soil pollution/Affects of end tipping from adjacent industrial properties
- Sediment control within Kumeu river

Ngati Whaitua o Kairapa confirmed early in the engagement process that the application of Te Aranga Design Principles would be appropriate for this project and provided feedback on place based applications for each principle.

During the site walkover the following values and principles were highlighted in reference to Kumeu river Huapai, to the Kumeu town greenway:
- Kaitaktanga – connecting the community to nature. For greenways, iwi, no general means support and connection with community, schools, conservation groups. All collaborating to achieve common objectives.
- Whakapapa – the holistic starting place of any project.
- Taha – attention to a detailed planting plan assisting the combat of myrtle rust disease.
- Mauri – the mauri of the awa is diminished and needs to be rebalanced – avoidance of any weed spraying beside the Kumeu river.
- Mahi Toi – Celebrate Mana Whenua connections to the Kumeu river, using narrative. Mauri use of `organic analogies’ are the histories which establish the particular relationship. Mauri have to all elements of Papatuanuku (earth)

These key points have been applied to the Place Based Applications of each Te Aranga principle for the Kumeu Esplanade greenway.

The site walkover with Ngati Whaitua o Kairapa also inspired other design considerations which were not discussed during the site visit but have been included in the place based applications based on follow up communications from Ngati Whaitua o Kairapa.

Community Engagement

Community engagement for the feasibility study targeted key stakeholders with particular knowledge, vested interest in this pathway and the location of the path and/or individuals and groups already active in local placemaking initiatives. It was difficult to identify key community stakeholders who were championing the development of the greenway.

Engagement with the Kumeu Arts Centre and the Huapai HUB Convening Group indicates there is local community support for the development of the greenway.

The primary methods of engagement have been emails, phone calls, attending community meetings as well as site visits discussing the characteristics of the site and how these will affect the decisions around route alignment and construction. Follow up emails and further meetings were been organised as necessary.

Continual engagement with community organisations already engaged in local placemaking and community development is of vital importance to access valuable local knowledge and to foster existing local support for the project.

Key Discoveries

While community are generally supportive of the both it is not obvious who in the local community might lead or champion the development of the Esplanade Reserve path.
- Local iwi are interested in the water quality and riparian restoration opportunities associated with the path.
- During the design phase further work is required to ensure that the path can be into the new residential development path network in the new town centre.
- Many internal council projects (primarily stormwater related) that are in the pipeline have significant potential to impact on the development of the Esplanade Reserve path.
3.0
Landscape Framework
3.1 Landscape Framework Summary

This section covers a range of themes relevant to the site and context. The investigations are organized into themes that address a wide range of socio-cultural and environmental considerations at the scale of the site.

A short overview is provided for each theme and considerations for the development of the Kumeu River Hupai, to the Kumeu Town Centre are covered. Where necessary, strategic questions (qualitative questions) are proposed that will need to be considered by decision makers and/or community members before action is taken.

Areas that require additional detailed (quantitative) investigations are also outlined. To aid with readability and to highlight next steps, the strategic questions and detailed investigations are presented in ‘call out’ boxes. The section concludes with a summary of the site’s spatial constraints and opportunities and strategic strengths, weaknesses, opportunities and threats.

The landscape framework organizes the Kumeu River Hupai to the Kumeu Town path into sections, each with their own set of unique characteristics, opportunities and constraints. These maps identify the distinctive character of each zone, the location of significant ecological and cultural features and approximate alignment of the path. Key constraints and opportunities are identified for each character area including opportunities for application of Te Aranga Design Principles.
3.2 Regional Context

This map shows the study area within its context of the Rodney Local Board Area displaying the intersection of Huapai - Kumeu and their relatively close proximity to the rural settlements of Waimauku and Riverhead.

Located 25km northwest of Auckland CBD, Huapai - Kumeu are connected to the city by road and rail SH16 connects east to west through the area and is the Main Road connecting Huapai - Kumeu, and Waimauku travelling onwards north to intersect with SH1 at Wellsford. The rail line follows SH16 for much of the study area, which is used for rail freight transport.

The wider area is serviced by a network of country roads traversing the relatively flat rural landscape. The Huapai - Kumeu district is well known for its horticultural and viticultural history and has become a popular destination for wine, food and outdoor pursuits.

These traditionally rural towns have been identified in the Auckland Unitary Plan as areas designated for future urban growth. Pockets of subdivision are clearly visible in the aerial base maps indicating that the residential expansion and population growth proposed for the area is steadily advancing.
3.3 Kumeū Greenway Network, Socio-Cultural + Built Environment

Network Connectivity

The Greenway Plan for Kumeū River Huapai, to the Kumeū Town presents a series of routes intersecting throughout the neighbourhoods of both towns along a circuit of the rural urban boundary and a series of bridle paths. The proposed routes extend into land earmarked for future urban growth providing a long-term vision creating pedestrian/cycle connectivity between established and future urban neighbourhoods.

River corridor and local streets have been predominantly chosen as future greenway routes providing link to recreation areas, local services and amenities. Beyond the township boundary of Huapai and Kumeū, the proposed greenway routes expand and connect into the wider greenway network proposed for Rodney.

Socio-cultural

Historically, Huapai and Kumeū are two small rural service centres providing a variety of services and amenities to the surrounding rural industries. Increasing commercial expansion since the 1970's has led to the boundaries between the two towns becoming increasingly blurred. Huapai and Kumeū are now commonly regarded as one expanding semi-rural community. Although regarded as one, there are clearly two identified town centres shown on the map offering a variety of services and amenities between them. Separated by an expanse of land zoned for light industry, the only access between them is via Main Road (SH16), which has an extremely high traffic volume.

The North Auckland Rail Line runs alongside SH16 on the southern side of Huapai and Kumeū. This rail line services freight only trains and imposes a barrier between the retail service civic centres to the new neighbourhoods being developed on the southern side of Huapai and Kumeū.

The popular Kumeū Showgrounds are located at the eastern entrance to Kumeū, providing a large open space used for a wide variety local and regional events. The western entrance into Huapai is ranked by large Open Space – Sports and Recreation zone. Huapai Domain which is composed of football and cricket fields, tennis and netball courts and their associated clubrooms. Both Huapai and Kumeū have a selection of retail and commercial businesses within their town centres. Huapai has a more civic presence with the inclusion of the local library, arts centre and historic tavern. Currently the anchor between the towns is the recently built New World Supermarket located on the Kumeū edge of the light industrial area. Huapai has most of the educational facilities, including one primary school and plans for a future primary school located within the Huapai Domain.

Built Environment

The built environment of Huapai and Kumeū reflects the rural service nature of the town history. A small selection of historic buildings are still present, the oldest being the Huapai Tavern built in 1883. The light industrial heart of Huapai and Kumeū dominates the built environment and displays a mixture of prefabricated warehouses, factories, carparks and their associated plethoras of signage.

Design Considerations

- Existing stands of Totara trees could provide good locations for passive / rest areas
- Flooded
- Water quality
- Public safety - lighting, clear site lines
- Rubbish containment and collection areas

Strategic Questions

- How can additional connections to the Kumeū River greenway be planned for the future to increase connections and usability of the path?
- How can the Kumeū River greenway be promoted to preference the route as key link to various destinations within the neighbourhood?

Detailed Investigations

- Geotechnical Investigations
- HAL report – Investigation into contaminated soils
- Land access negotiations – ROV assessment agreement or land acquisition required to complete path through section where no easements currently exist.
- Water quality testing – River pollution level testing/monitoring
Attachment A

Item 13
3.4 Kumeū’s Environment + Natural Hazards

Environment

The landscape surrounding Huapai Kumeū area is renowned for its agriculture, horticultural and viticultural industries for over 80 years. The fertile flat land is nestled between the foothills of the Waitakere Ranges and the beginning of the Riverhead Forest. An extensive river system extends from the Kipara Harbour, branching throughout the rural landscape and the urban edge of Huapai Kumeū.

Tall well-manicured hedges, used as windbreaks between rural properties, provide a distinctive character to the area. In recent years a number of large farms have been subdivided into lifestyle block sized properties and substantial new residential subdivisions.

The river system around Huapai Kumeū provides a natural landscape of estuaries and bush corridors. To the north, the landscape gradually steepens developing into the foothills of the Riverhead Forest providing a variety of locations for outdoor adventure sports.

Auckland Council GIS maps identify a number of forest and regenerating ecosystems around the edges of Kumeū River within the subject site of the pathway.

Natural Hazards

The main river impacting the Huapai Kumeū area is the Kumeū River. Water quality based on measurements taken from the Macdonnichtereha Community Index score retrieved from LAWA (Land Air Water Aotearoa), indicates water quality of Kumeū River is classified as “poor” and is described as having "probable severe pollution".

Kumeū River runs through predominantly agricultural and horticultural land. Public access to Kumeū River is available at the water quality sampling site and some restoration has taken place along stream banks, but the river remains unsuitable for recreational use due to lowered water quality and a lack of walkways or exercise areas.

Auckland Council GIS maps indicate Huapai Kumeū as being within a floodplain, and has a plethora of overland flow paths branching into many of the local neighbourhoods. The main natural hazard concern for Huapai Kumeū will be extreme storm events which may cause frequent flooding.

Design Considerations

- Existing stands of Totara trees could provide good locations for rest areas.
- Flooding
- Water quality
- Public safety - lighting, clear site lines
- Rubbish containment and collection areas

Strategic Questions

- How can additional connections to the Kumeū River greenway be planned for the future to increase connections and usability of the path?
- How can the Kumeū River Huapai to the Kumeū Town greenway be promoted to provide a key link to various destinations within the neighbourhood?

Detailed Investigations

- Geotechnical Investigations
- HAL report - Investigation into contaminated soils
- Land access negotiations – ROW assessment agreement or land acquisition required to complete path through section where no esplanade currently exists.
- Water quality testing – River pollution level testing/monitoring
3.5 Kumeū River Greenway | Existing Conditions

The Kumeū River path connects the Huapai town centre through to the New World and Kumeū central development (currently under construction) Oraka Road. The library and service centre and the Arts Centre form primary destinations at the Huapai town centre end. New world, Kumeū central and the existing Kumeū shops form primary destinations at the Kumeū end of the proposed site. Main Road and the new town centre (to New World) along the Kumeū River. The proposed route can be separated into 3 key components: the primary path along the Esplanade Reserve from the northern end of Huapai River Reserve walkway near Oraka Road along the river to New World; an existing road corridor with attached footpath extending from Main Road to Kumeū Esplanade Reserve as a secondary access point for the path and Oraka Road to the main road through the Huapai River Reserve walkway. Each area has a unique characteristics and qualities.

The primary route from the northern end of Huapai River Reserve near Oraka Road along to New World is a riparian corridor along the river edge. This route is a highly modified riparian margin surrounded by mixed native and exotic vegetation. While this section of the path is significantly modified its character is primarily “natural”. Both the river and the surrounding ecology are degraded and could be described as neglected.

The third component of the proposed route connects Oraka Road to Main Road through the Huapai River Reserve walkway. This route already has an existing walkway through it that also connects to the Kumeū Arts Centre, Kumeū Library and Huapai HUB. The Huapai River Reserve is currently the primary public open space in the Huapai / Kumeū township area and as such is used by the community for a range of social and recreational activities.

The existing road corridor route as a secondary connection to the greenway provides access from Main Road to the Esplanade Reserve along an existing road through an industrial estate made up of several commercial and industrial properties. The sidewalks along both sides of the road corridor do not connect all the way to the end of the road and the proposed accessway to the path.
4.0
Design Overview
4.1 Overview

The design overview outlines the path parameters, arranging the Kumeu River Greenway into a sequence of sections, each with their own constraints, opportunities and unique characteristics. The set of maps as outlined in Chapter 5 - Project Staging, identify the existing character of the area and the indicative alignment of the path.
4.2 Proposed Kumeū River Greenway Route

The amended design proposed in this report has been developed from priority route Kumeū River Greenway Path (6) prioritised by the Rodney Local Board various routes identified in the Kumeū, Huapai Walla Walla and Riverhead Greenways Plan. As shown on the plan, the entire greenway route has been organised into three sections that allow for a staged construction implementation.

The Huapai - Kumeū greenway follows the Kumeū River from Orahi Road to the edge of Kumeū town centre. The river has a history of connectivity from early Moriori using it as a portage route to the Kaipara Harbour. Over the years it has been neglected, becoming overgrown and blocked.

Council ownership of the esplanade reserve along the route of the proposed greenway is interrupted by one privately owned property (222 Main Road) extending to the river edge. In order to make the river path connection feasible access an easement is required subject to landowner’s permission as the northern side of the river inclines steeply and is unsuitable.
4.3 Core Design Principles

The following design principles have been formulated from a collaboration of best walking and cycling standards, the Auckland Design Manual, and the Local Path Design Guide (March 2017). Together they are intended to work with the Te Aranga Design Principles by providing more fine-grained direction to the development of Victoria Street greenway.

**Safe**

Safety and a stress-free environment are core tenets of achieving a successful local path. Conflict points such as high-vehicle numbers and high speeds should be minimised by providing a consistent level of experience across the path network. Crime prevention and enhanced social safety are also key outcomes of well-designed local paths.

**Accessible & Comfortable**

Paths infrastructure should be accessible for all users, including children and people with disabilities. Considerations include ample width, gentle gradients, smooth transition in surfaces, and avoidance of high volumes of traffic that creates fumes and noise.

**Connected**

Local paths should connect destinations such as residential neighbourhoods, schools and universities, town centres, transit stations and bicycle facilities. They should seamlessly connect to the wider transport network including express paths. Additionally, these connections should be designed to be easily navigated. Where intuitive design is unachievable, clear and consistent wayfinding signage should be employed.

**Enabling**

Local paths should connect destinations such as residential neighbourhoods, schools and universities, town centres, transit stations and bicycle facilities. They should seamlessly connect to the wider transport network including express paths. Additionally, these connections should be designed to be easily navigated. Where intuitive design is unachievable, clear and consistent wayfinding signage should be employed.
4.4 Path Parameters

Design Strategy

What is a Shared Path?
A Shared Path is a wide unimpeded path for walking and cycling. They are designed to be safe for all users and are typically 3m wide.

Proposed Standard
Given the expected users, the recommended classification for walkers is Path - Urban Residential as defined in the NZ Handbook for Tracks and Outdoor Structures (SNZ HB 8630:2004) and the appropriate grade for cyclists is Grade 1 as defined by the Cycle Trail Design Guide prepared by the Ministry of Tourism.

Spatial Requirements
Design user envelopes proposed for a shared path are:
- Pedestrians 1500 mm
- Cyclist 1000 mm
- 500 mm user separation

The desired width of a shared path is 3 metres. The desired width for a connecting path is 2 metres.

Path Offsets
Minimum Width
- Shared path zone - 2500mm at pinch points. Consider lane separator markings in these areas.
- Minimum Offset
  - The path alignment should allow for a minimum 500mm clearance from all existing site features (existing trees, furniture, vegetation etc)
  - All landscape elements (furniture, retaining, vegetation, barriers, etc) along path edge must be offset a minimum of 500mm from shared path zone.

Long Fall
1.333% (3%) is considered the maximum desirable gradient along the length of the path. Gradients of 1:20 (5%) or greater are acceptable over short distances and are preferable where strict adherence to maximum desirable grade would result in deviation from straight or desired route and/or would result in additional earthworks.

Cross fall

1.8m WALKING TRACK

3m SHARED PATH
4.5 Surface Strategy

The surface treatment of the path helps to determine the accessibility, safety, comfort and experience of the Kumeu River Greenway. It is also the key factor determining the durability, life expectancy and maintenance requirements of the path.

EXPOSED ACG.

19mm ballast (prime mix M405) 85% Crushed by 31mm.
Lightly exposed aggregate finish. To be installed over a compacted base and subbase to engineer specification.

FRP BOARDWALK

Specification of supplier, product and methodology for FRP boardwalk TBC.
4.6 Hard Landscape Strategy + Greenway Structures

The hard landscape elements include all the constructed, built and fabricated objects and structures that help to make up the Karori River Greenway. They include bridges and boardwalks, barriers and balustrades, retaining walls, street crossings, seating, signage and path markings, and lighting if required.

HARD LANDSCAPE ELEMENTS

FURNITURE

PATH MARKINGS

DRINKING FOUNTAINS

WAYFINDING SIGNAGE

LIGHTING

BOLLARDS

STRUCTURES

BRIDGES

RETAINING WALLS

Attachments
4.7 Soft Landscape Elements

The planting is organized into three categories - Mitigation Planting, Long Term Enhancement Planting and Entry Feature Planting. The Mitigation Planting is the planting that will be completed following construction of the path in order to mitigate any adverse environmental impacts, with a focus on enhancing ecological integrity. The Long Term Enhancement Planting can be planted at any time after the path is completed as part of ongoing improvement of the path and the open space it traverses through. The long term planting can be delivered through various means, including but not limited to contractor implementation during path construction, local improvement projects and community/volunteer groups. The Long Term Enhancement Planting places priority on amenity and functionality as well as ecological benefit.

All planting is designed to maintain and enhance the existing biodiversity of the site and to create habitat for native wildlife (invertebrates, herptofauna and birds).

**ENTRY/EXIT FEATURE**

Entry plantings to be designed and installed in consultation with local interest groups to provide a softer character and ownership of the greenway.

**VEGETATED BARRIERS**

Vegetated barriers are employed in place of a physical barrier of rendered or timber where the risk of kill is less than 0.1% or in places of higher risk (2-5%)

**RIPARIAN (FRESH-WATER)**

The riparian corridor is the area along the edge of the stream and forms the interface with the adjacent land. A combination of dense ground cover vegetation and larger diameter planting vegetation is desirable for stabilizing stream banks and may assist in reducing erosion. Filter vegetation reduces fine sediments and may assist in reducing or maintaining water temperatures. Riparian vegetation also filters surface and groundwater runoff and provides greater connectivity of terrestrial habitats. Riparian zones also provide important habitat and stopping places for terrestrial wildlife.

**INFILL / BUSH EDGE**

Long-term bush infill planting will provide a buffer and transition zone between existing bush areas and adjacent paths and open spaces as well as augmenting existing vegetation adjacent to the path by providing shade and understory diversity planting. The bush infill planting should create conditions where native plants can regenerate themselves so that eventually the planting can become self-sustaining.

**PATH EDGE**

The path edge planting is very planting rich/mixed along the edge of the path that is not grassed or paved. All planting in this area must be low lying and resistant to the effects of compacting as well as environmental stresses such as drought and wind exposure.
4.8 Arts + Culture

Several opportunities for the integration of arts and culture into the proposed path alignment have been identified by key stakeholders. The following map indicates what and where these opportunities exist.

Mara Whenua representatives have confirmed that Te Aranga Design Principles are a useful and desired framework to use (as a starting point) to identify and explore opportunities for this project. During on-site conversations Mara Whenua have identified multiple opportunities to apply Te Aranga Principles, most explicitly through the principles of Mana Whenua, Mauri Ti, Mahi Toi and Toi. During the design phase Mara Whenua have indicated their intention to recommend placement of mahi toi elements along the path.

Arts and culture along the proposed route can be expressed and celebrated through a wide range of opportunities including both stand alone cultural and artistic artefacts as well as through existing or new infrastructure developed in association with the design and construction of the path. These include public art, community art, wayfinding, interpretive signage, infrastructure, and ecological restoration. Examples of path infrastructure that can integrate arts and culture are seating, chiming fountains, boardwalks, junctions, bridge balustrades and lighting. Ecological restoration elements should consider the re-establishment of mahi toi sites along the path where appropriate.

In parallel with Te Aranga Design Principles the various opportunities for the integration of arts and culture have been identified under the following themes:

- Prominent Views
- Social & Community Engagement
- Ecological and Cultural Narratives
- Mahi toi

Mara Whenua have expressed interest in the naming the path. “Te Ao Māori is a holistic approach and the starting place is always whakapapa. It is the connection between humans and the natural world, ecosystems, all flora and fauna, we are part of the system, not separate. Everything has whakapapa, our world is built on it. Everything comes from somewhere. It is holistic and integrated and applied to many aspects of life.”
5.0 Project Staging
5.1 Overview

The project delivery scope is to provide a new road through the proposed change to accommodate a new cycling and walking path. This will provide a quality cycling and walking route for residents and visitors to the area. The project will also provide improved connectivity between the proposed new development and existing road infrastructure.

Section 1: Otto Road to Main Road

Section 2: Main Road to New Development

Section 3: New Development to Otto Road

The project will require the provision of new road infrastructure, including curvatures, gradients, and drainage systems. The project will also require the provision of new pedestrian and cycling facilities, including signage and lighting.

The project will be delivered in accordance with the relevant legislative requirements and will be subject to the approval of all necessary permits and approvals.
5.2 Kumeu River | Section 1 (Oraha Road to New World)

Oraha Road is the northern entry point into the Huapai River Reserve walkway. The proposed greenway route is a 3m wide shared path which branches off the current Huapai River walkway and crosses the Kumeu River to nestle into the southern side of the rivers edge.

A Council owned esplanade reserve exists alongside the river for much of the walkway, separating the river from the large industrial area that lies between Huapai and Kumeu town centres.

The vegetation on either side of the river edge is a thick array of native and exotic trees, shrubs, weeds and grasses. The landscape of the proposed alignment is generally flat, consists of grassland/pampas and is free from any major obstructions.

Council ownership of the esplanade reserve is interrupted by one privately owned property extending to the river edge. This area is planted with a thick grove of pine trees. Earmarked for growth a ‘future urban zone’ in Auckland Unitary Plan. The northern side of the river inclines steeply into semi-rural privately owned properties, also being earmarked for ‘future urban’ zoning.

The final section of the proposed route continues to follow the river, however the esplanade becomes thinner and the vegetation thicker, making the river difficult to appraise. A combination of weed inundation and rubbish contamination from neighbouring industries has reduced the present landscape quality of this section of the river.

The proposed shared path terminates at the edge of Kumeu Town Centre zone and reduces to a 1.8m footpath connecting to existing supermarket and future retail locales.

Scope Statement
- Section 1 - 30m wide concrete path (1.57km long) including vegetation clearance and land rehabilitation. Proposed riparian planting.
5.2 Kumeū River | Section 1 (Oraha Road to New World)

Existing Character

- The vegetation on either side of the river edge is a thick array of native and exotic trees, shrubs, weeds and grasses
- Site is generally flat, consists of grassland/gamba, and is free from any major obstructions
- Surrounded by industrial zoning throughout
- Major floodplain zone during peak storm events

Opportunities

DRAFT OPPORTUNITIES PROPOSED IN GREENWAYS PLAN

- A safer connection route for users as an alternative to the State Highway
- Connect to the proposed pathway to the new Kumeū Central Development
- Removal of weed species. Addition of riparian planting would improve local ecology
- Potential for the community to plant the stream banks

LIMITATIONS

- Overland Flow Path and Flood Plain
- No known Archaeology or instability issues.
- Potential contamination issues relating to the use of the Pinepac site.

PLANNING CONSIDERATIONS

- Open Space- Informal Recreation Zone
- Recreational Trails are a permitted activity under H7.91 (A49) or Rule E7.4.1(A14) provides for “off-road pedestrian and cycling facilities” (Chapter E27 Transport) as a permitted activity in all zones, subject to compliance with relevant standards.
- Potential for off-road pedestrian and cycling facilities.
- E12.6.2(1) A General Standards only allowed for less than 5m or 5m² of earthworks to occur within the riparian yard which is 20m either side for a rural stream. This will be triggered due to the scale of the works.
- Potential boardwalks will be considered a new structure within the 1 per cent AEP flood plain and over an overlapped flow path which is a restricted discretionary activity under E36.4.1(A37) and (A42).

Consenting Requirements

- Open Space- Informal Recreation Zone (site adjoining Oraha Road shown as Lot 1 DP 204544; Lot 2 DP 144664)
- Open Space- Conservation Zone (Along river)
out to establish if the works and use require consent in relation to the NESCS by a suitably qualified specialist.
- It is noted that the Future Urban zone anticipates comprehensive and planned urban development in the future. It could therefore be assumed that an esplanade reserve or strip will be secured as part of any subdivision consent of this land.
- Business-Town Centre Zone (New World Site)
  - Paths are a permitted activity under Rule E27.4.1(A10) “off-road pedestrian and cycling facilities” (Chapter E27 Transport) in all zones, subject to compliance with relevant standards.
- Assumed Earthworks offers than 1000m² or 2500m³ are proposed (otherwise Restricted Discretionary Consent is required under E12.4.1(A4) and/or (A9)).

PLANNING CONCLUSIONS

- Anticipated to require resource consent for earthworks and vegetation removal within riparian and stream area. In addition, any structure within a flood plain and in over an overland flowpath will require consent.
- Ecologist and Engineer input will be required for the stream works, earthworks and flood hazard components.
- Arborist input will be required for any works within the driplines of trees and large tree removals.
- It is considered any such application is low to medium risk subject to appropriate design methodology and mitigation.

Land Ownership

- Auckland Council (Local purpose Esplanade Reserves)

**Next Steps**

**Investigations and Assessments required**
- Water & Ecological Assessment
- Topographical survey of the stream and embankment
- Geotechnical and land contamination testing where path is proposed and adjacent to Pinepine site
- Arboricultural Assessment
- Hydrology and Flooding Assessment

**Design and Consenting**
- Developed Design
- Assessment of environmental effects
- Resource and building consents
- Landowner approvals and land access/assents
5.3 Kumeu River | Section 2 (Main Road to Esplanade Reserve)

Scope Statement

- Section 2.1: 2m wide concrete footpath within A1 road corridor (Continuing)
5.3 Kumeū River | Section 2 (Main Road to Esplanade Reserve)

Existing Character

- Light industry zoning on either side of the road corridor
- Informal gravel path through the industrial site surrounded by containers
- Dense vegetation leading up to Esplanade Reserve

Constraints

- Existing traffic servicing local industry interfering with pedestrian safety

Opportunities

DRAFT OPPORTUNITIES PROPOSED IN GREENWAYS PLAN

- A safer connection route for users as an alternative to the State Highway
- Connect to the proposed pathway to the new Kumeū Central Development

ADDITIONAL OPPORTUNITIES

- Provides an alternative entry and exit path
- Prevents a precedent to consider future linkages into the greenway as anticipated development reshape Kumeū
- Introduce street lighting improving pedestrian safety on road corridor

Consenting Requirements

AUP ZONING

- Road Reserve
- Business-Light Industrial Zone

LIMITATIONS

- Flood Plain

PLANNING CONSIDERATIONS

- Road Reserve
- Road Network Activities including paths are permitted under E26.2.1.2(A67).
- Assumed Earthworks of less than 2500m³ are required (otherwise Restricted Discretionary Consent is required under E26.5.5.2(A106)).
- Tree removal involving trees less than 4m in height and/or less than 400mm in girth is permitted (otherwise Restricted Discretionary Consent is required under E26.4.1.1(A92)).
- Road Network Activities within flood hazards is permitted under E36.4.1(A33).
- Business-Light Industrial
- Paths are a permitted activity under Rule E27.4.1(A10) “off-road pedestrian and cycling facilities” (Chapter E27 Transport) is all zones, subject to compliance with relevant standards.
- Assumed Earthworks of less than 1000m³ or 2500m³ are proposed (otherwise Restricted Discretionary Consent is required under E12.4.1(A4) and/or (A9)).
- It is noted the site of Pine pac was very likely to have been used for uses that would be present on the Hazardous Activities and Industries List (HAIL) in relation to the National Environmental Standards for Contaminated Sites (NESCS). If so, it is to be disturbed further work will need to be carried out to establish if requires consent in relation to the NESCS by a suitably qualified specialist.

Land Ownership

- Auckland Council (Local Purpose Esplanade Reserve)
- Private land, 222 Main Road, Kumeū Let 2 DP60406 (permission for right of way access is subject to consultation and negotiation)

Works on the Light Industrial Pine Pac Site has the potential to be permitted subject to further investigations by a suitably qualified contamination specialist.

Next Steps

Investigations and Assessments required
- Land contamination testing within Pinepac site
- Arboricultural Assessment
- Hydrology and Flooding Assessment
- Design and Consenting
  - Developed Design
  - Assessment of environmental effects
  - Resource and building consents
  - Landowner approvals and land access/assessments
Item 13

SECTION 2 - 1.2m wide concrete path

BRUSHED CONC. FINISH

NOT TO SCALE
5.4 Kumeū River | Section 3 (Oraha Road to Main Road)

Huapai River Reserve is attached to the civic area of Huapai town centre and travels alongside the Huapai River. Presently, a modest 1.8m walkway traverses the park from two locations on Main Road/SH16 to Oraha Road. To complement the proposed greenway along Kumeū River, it is suggested to widen this existing walkway to a 3m wide shared path.

Scope Statement

- Section 3 - Widen existing concrete path to 3.0m (9ft11in long)
5.4 Kumeū River | Section 3 (Oraha Road to Main Road)

Existing Character

- Open greenland area surrounded by parkland trees
- Kumeū River runs under the junction of the existing concrete path and Oraha Road
- Relatively flat area with narrow concrete path from Oraha Road to Main Road (State Highway)
- Kumeū Arts Centre and Library are located within close proximity

Constraints

- Widening the existing path will disconnect commuters temporarily from using the current path until reconstructed
- Concrete access to the site will be difficult
- Night lighting interfering with natural bio-rhythms of surrounding ecology

Opportunities

- Improve the user quality of the existing walkway
- Provide improved link into proposed greenway route from main Road SH16
- Clean up, remove clutter and debris in river
- Improve quality of riparian planting within reserve
- Reinstall mast of the awa and the reserve
- Install lighting into reserve
- Consider public art and signage based on mana whenua narratives

Consenting Requirements

AUP ZONING
- Open Space - Informal Recreational Zone (site adjoining Oraha Road shown on Lot 1 DP 204544, Lot 2 DP 149966)

LIMITATIONS
- Overland Flow Path

PLANNING CONSIDERATIONS
- Recreational Trails are a permitted activity under H79.1 (A49) or Rule E27.4.1 (A10) provided for "off-road pedestrian and cycling facilities" (Chapter E27 Transport) as a permitted activity in all zones, subject to compliance with relevant standards
- Tree removal involving trees less than 4m in height and/ or less than 400mm in girth is permitted (otherwise Restricted Discretionary Consent is required under E16.4.1 (A10))
- Earthworks up to 1000m² outside the 10m riparian yard are a permitted activity under E12.4.1 (A3) & (A4)
- Vegetation removal within 10m of a urban stream is a restricted discretionary activity under E15.4.1 (A15)

PLANNING CONCLUSIONS
- Anticipated to be a permitted activity in both zones unless tree removal and earthworks are greater than the permitted thresholds above

Land Ownership

- Auckland Council (Local Purpose Esplanade Reserve)
- Private land, 222 Main Road, Kumeū Lot 2 DP50406 (permission for right of way access is subject to consultation and negotiation)

Next Steps

Investigations and Assessments required
- Arboricultural Assessment
- Design and consenting
- Developed design
- Assessment of environmental effects
- Resource and building consents
- Construction documentation
Executive Summary

Overview

This report presents the feasibility assessment for the Omaha Greensways which is identified as priority route 24 in the Rodney Greensways Paths and Trails Plan. Omaha is a beachside community situated to the north east of Waitakere on the Mangatawhiri sandspit.

The report outlines a variety of routes for shared paths located around Omaha sandspit with the primary means of creating connections between green open spaces and the residential subdivisions. There are 7 sections proposed and each route has been designed to be built as a stand-alone section that functions in a greater overall scheme. Three different options have been presented for paths that access through or around the Tanko Wetlands.

The majority of path widths are 2.2-3m with a combination of concrete paths and timber boardwalks. While some routes are proposed as entirely new developments, others utilise existing paths, proposing an increase in width to allow both pedestrians and cyclists to use these amenities. The proposed paths are located on land owned by Auckland Council Auckland Transport, The Crown and private property.

This feasibility report continues on from the Greensways Plan and is one of a number of steps within the project framework. The entire greenway route has been organised into a series of sections that allow for staged construction implementation. Implementation of the routes provided are subject to further work including detailed investigations and design, landowner permission, resource consents, funding availability etc.

Engagement

Engaging with the Rodney community and mana whenua has been an important part of the process and one of the key foundations to developing the Rodney Greensways Plan. The continuation of the engagement process alongside professional knowledge has been an important contribution to the shared path proposals presented in this feasibility study.

Proposed Scope:

- Section 1 - Omaha Drive to Omaha Golf Club: 1km long 2.5m wide concrete path within Auckland Transport road reserve and the Omaha Golf Course boundary.
- Section 2 - Broadlands Drive: shared path (safety improvements).
- Section 3 - Omaha Tanko Wetlands Walk Trail: 2.2km long 1.0m wide compacted gravely trail within Omaha Tanko Wetlands Scientific Reserve. This path is designed primarily for walking only.
- Section 4 - Whangateau east shared boardwalk via esplanade reserve: 2.45km long 2.0m wide shared boardwalk within esplanade reserve.
- Section 5 - Widen footpath along Mangatawhiri Road: 160m long footpath from 3m wide concrete shared path in local purpose reserve.
- Section 6 - Widen Omaha south existing path network: Widen 1.5km of selected dairy walkway to 3m wide concrete shared path to improve safety and usability.
- Section 7 - Whangateau shared boardwalk and path connections: Connect new 380m long 2.2-3.3m wide shared boardwalk through the Coastal Marine Area (CMA) adjoining the Tanko Scientific Reserve.
- Construct new 900m long 2.2-3m wide path through private property (subject to access permissions from land owners).

Design Principles & Strategy Alignment

The feasibility study aligns with the Rodney Greensways Paths and Trails Plan, Fiji to Pakki and the Rodney Local Board Plan 2017. The design principles have been formulated from a collaboration of best practice walking and cycling standards, the Auckland Design Manual, the Local Path Design Guide (March 2017) and ATco Chapter 13 - Cycling Infrastructure Design. The design framework is based on the following principles: the paths must be safe, connected, accessible, comfortable and capable. These principles are intended to work with the Te Aranga Design Principles to provide a more fine grained direction to the development of the Omaha Greensways.

Key Findings

- The Omaha Greensways proposed routes are feasible subject to further work including detailed investigations and design, landowner permission, resource consents, funding availability etc.
- The Omaha Greensways have been divided into 7 suggested sections to allow for construction flexibility. Each stage can be independently implemented as a standalone project.
- Seven sections have been proposed subject to further work including detailed investigations and design, landowner permission, resource consents, funding availability etc.

Next Steps

It is recommended that the priority route, Section 1 Omaha Drive to Omaha Golf Club is to proceed to design and consenting subject to Local Board approval. The next steps after the feasibility study phase include detailed site investigations, design, landowner approval and any regulatory and/or consenting requirements to be met before physical works can commence.

- Further investigations required
  - Marine and Terrestrial Ecology
  - Geotechnical and land contamination testing
  - Archaeology
  - Environmental Assessment
  - Cultural Values Assessment
  - Hydrology and Flooding Assessment
  - Tukutuku considerations
- Design and consent phase
  - Detailed design
  - Environmental effects
  - Resource and building consents
  - Landowner consents and land access / easements
  - Construction documentation
  - Construction Considerations
  - Provision of shared access for physical works
  - Construction staging
  - Construction timetables and seasonal considerations
  - Ownership and asset management

The proposal has mixed support and will require further consultation and engagement with key stakeholders and mana whenua. Section 5 - Widen footpath along Mangatawhiri Road and Section 6 - Widen Omaha South Existing Path Network, to prioritize the enhancement of existing footpaths. This will provide a safer and more accessible option for cyclists and pedestrians on this popular path.

Section 7 Whangateau shared boardwalk & path connections. This route is only feasible if land owner access permission and easements can be obtained from the owners of lots 2 DP 705260 and lot 4 DP 200122.

The existing Waitakere Cycleway has been considered and the proposed routes link into this network. Opportunities to improve ecological function through planting, water sensitive design and low energy/low toxicity materials should be integrated into path design.
1.1 Purpose

The purpose of this document is to analyse the feasibility of developing the Omaha Greenways, priority route 24 which is indicated within the Rodney Greenways Plan.

The Rodney Greenways Plan presents a vision of an entire network of greenways connecting town centres, schools, public facilities, recreation areas and public transport hubs with a long-term aim of significantly improving walking, cycling and ecological connections within and between the urban and rural environs of the entire Rodney region.

The purpose of the greenway plans was to provide a thorough exploration of places and destinations which would greatly benefit from non-vehicular connectivity. Although clearly determined routes have been identified in the plans, the details involved in developing and constructing the pathway alignments were not explored in these documents.

The purpose of the feasibility study is to look at potential alignments of the proposed pathway, and the range of potential issues and opportunities that may arise from any such alignments. This study presents a strategy of implementation, indicating the details necessary to deliver a comprehensive greenway path.
1.2 Background | Rodney Greenways Local Path Plans

In 2014 the Rodney Local Board released ‘The Rodney Local Board Plan’ which contained a community driven set of aspirations, goals and outcomes. Based on the vision for wider Auckland expressed in the Auckland Plan 2012, the Rodney Local Board presented a vision to ‘create the world’s most liveable city at local level’.

Engaging with the Rodney community has been an important process and one of the key foundations to developing the Plan. Applying community feedback with professional knowledge resulted in key initiatives being identified to guide and facilitate the delivery of Rodney Local Board’s vision. Although many issues were identified during community consultation, a recurring theme was to create a healthy, safe and well-connected environment to live, work and play in. It was identified that the creation of a greenways plan would be a tangible way to achieve many of the goals and outcomes to successfully deliver the aspirational vision for Rodney.

“Auckland’s greenways plans are a series of visionary networks being worked on by local boards. Their long-term aim is to greatly improve walking, cycling, recreational and ecological connections across the region” (Auckland Council).

The Rodney Local Board Plan 2011 communicates a re-commitment to their aspirations, goals and outcomes set out in 2014. Key initiatives have progressed and been refined to integrate the growth opportunities Rodney has experienced through Auckland’s population expansion.

Background Rodney Greenways - Local Path Plans

The Rodney Local Board has adopted three Greenway - Local Path Plans:

- Welkford
- Kumeo, Huspai, Waimauku and Riverhead
- Pakari to Pakiri

The plans are based on engagement with the local communities to identify the aspirations for walking, cycling and other connections in their local areas. Various initiatives, engagement sessions with representatives were held during the development of the plans, following initial research and GIS mapping, local board and internal and external agency stakeholder workshops.

The three plans introduce 44 routes that have been identified for the communities in Rodney.

Financial constraints and restricted time frames required the Local Board to identify which of these routes would be most desirable and valuable for each community. In addition to considering which would be most suitable to develop as a foundation project.

Greenway Prioritisation

Given the significant number of priority routes identified, a detailed exercise was undertaken to determine the routes where the budget could provide the greatest benefit.

The process for identifying the four routes to receive funding was workshops held with the Rodney Local Board Transport Infrastructure and Environment Committee on 3 August and 12 October 2017.

During these works a set of criteria for prioritising Rodney Greenways priority routes was tabled for feedback from board members.

These criteria were used to develop a scoring matrix to prioritise the adopted greenways plan priorities for allocating budget towards detailed feasibility. During the development of the scoring matrix the opportunity presented itself to centralise all adopted greenways plan priority route information into one document – Rodney Greenways Priority Matrix.

The matrix allowed for the consideration of a broader set of criteria and embedded links to priority route maps.

Of the 44 proposed routes, four priority projects were recommended by Auckland Council staff to receive funding from the $250,000 allocated by the Rodney Local Board to plan for the delivery of the adopted local plan.
1.3 Background | Priority Route 24 Description (Omaha Wetlands Walk)

Twenty-nine proposed greenway projects have been identified in the Rodney Greenways Paths and Trails Plan: Pōhiki to Pakiri. To determine which greenway projects should be developed further first, a set of criteria was established and feedback was received from board members via a scoring matrix. This ensured that the proposed greenways could be prioritised allowing for a budget to be allocated towards producing a detailed feasibility report.

Number 24, the Omaha Greenways proposal has been selected as the only project from the Rodney Greenways Paths and Trails Plan: Pōhiki to Pakiri to be developed into a detailed feasibility report. The Omaha Greenways were selected due to the high community support in the area as well as performing well against Auckland Council’s Strategic Direction. The majority of the land earmarked for construction is owned Auckland Council and Auckland Transport.

With strong community support for greenways in the Omaha area the need to retain green space and protect the existing native bush is a concern. The greenways will provide vital links from the northern subdivision to the southern subdivision as well as connecting these areas through to key community facilities and natural amenities.

This priority project connects into other proposed routes and is a component of the wider greenway networks proposed for Rodney.
**PRIORITY GREENWAY PROJECTS**

**Location**
Omaha Wetlands Walk.

**Description**
The route connects Omaha to priority route 22 and from here the wider greenway network. The loop walk incorporates the Omaha Tamio Wetlands Walk proposed by the Omaha Beach Community Incorporations Society. DOC is a significant landholder, further negotiations are necessary in a project phase.

**Ecology and cultural considerations**
South of Broadlands Drive, this route skirts the Omaha Tamio Scientific DOC Reserve, an area of high ecological importance and home to a number of threatened bird species. Extreme care in selecting a route is required here. The coastline is of significance to Mana Whenua, and the coastal edge features a number of CMIIcons.

**Constraints**
- Some sections may be tidal
- Complex ecological and cultural overlays
- Some sections require agreement with private landowners

**Opportunities**
- Ecological improvements around the inlet, carefully assessed route selection
- Broadlands Drive would benefit from better vehicle/walking-cycling separation

**Budget Requirements (Cajex)**
- Total length: 3,350 m
- Boardwalk 1,690K, Pathway 700K, earthworks and sanitrics 490K ecological allowance 250K, PG and consenting (lower rates based on length) 300K Total 3,340K: Broadlands Drive might be wide enough on the sides, the cost of the upgraded pathway is included in the estimate.
- The Omaha Drive section requires scoping and budget estimating by AT at a project phase. It’s not included in the budget estimate.

**Funding and Delivery Options**
Locally Driven Initiatives (LD) CAPEX, Local Board Transport Capital Fund (LBTCF), volunteer/partnership work (planting). Partnership with local businesses/sponsorship/advocacy, Urban Cycleways Fund, AT cycleways.
2.1 Consultation Background

Engagement and Consultation History

The Greenways Plan was developed through a three-stage process. Phase one included stocktaking existing strategies and plans as well as key stakeholder workshops to establish a vision and greenways definition. A working party was then launched to monitor and review the plan as it developed.

Adopting the Greenways definition, a desktop study was completed to create a high-level network of walking and cycling connections. Ecological improvements were also considered to improve links between existing forests, wetlands, coastal edges and streams. These provided an understanding of the broad landscape patterns within the study area and were used to guide phase two.

This plan was prepared in conjunction with Matakana Coast Trail Trust in addition to other various local community group and agencies. Workshops were also held with other key stakeholders including Auckland Transport, NZTA, NZ Walking Access Commission and Auckland Council staff to inform them of the project and to gain an understanding of policies, projects or aspirations that would affect the Greenways Plan. Meetings were also held with the Treaty Partners, Mana Whenua.

Phase 2 began after the desktop mapping, and included analysis and targeted consultation. The draft routes were overlaid with other background data to ensure that the network makes appropriate connections to key destinations. From October 2016 to December 2017, consultation was undertaken with community groups known to have an active interest in greenways. Their feedback was then collated and draft routes updated.

Phase three focused on refining the network and wider consultation. A public consultation period was open from 27th January – 21st February 2017 on the Shape Auckland website where routes could be drafted and online feedback submitted. Workshops and drop in sessions were also held at various locations within the region. This feedback was incorporated into final network plans.

Due to funding not being currently available to fully construct the network, the local board has identified priority sections based on community desire, costs, benefits, constraints and opportunities. The Omaha Greenways is one of these priority sections.
2.2 Consultation

Feasibility Study Engagement Plan

Based on our understanding of the wider process of developing, design and implementing a greenway, feedback from Council staff, as well as the nature of the Feasibility Study, a formal consultation with the wider community was not undertaken. A recent and in-depth consultation process was run by Auckland Council during the development of the Rodney Greenways Plan (see Consultation Background section) and formal consultation will be required during the (subsequent) design phase of the greenway. Furthermore, given that the Feasibility Study is not providing particular outputs that require formal consultation and is a continuation of the engagement process recently completed wider community re-engagement was deemed neither desirable nor productive, and in fact was identified by Council staff as a risk to the project by contributing to consultation fatigue.

Therefore, the engagement plan involved working with local iwi with an interest in the project, Auckland Council family internal stakeholders, key community stakeholder groups and individuals who have particular local knowledge, related to the greenway and the site. This engagement was critical to understanding various aspects of the site and the wider social, cultural and political landscape in which the greenway is needed.

Mana Whenua Engagement

Mana Whenua were briefed on the Rodney Greenways Feasibility Study at the NorthWest Mana Whenua Hui run by Auckland Council in Orewa on April 4 2018. Interested iwi were invited to contact the consultants directly, to express their interest in being involved in the project. Ngāti Wai and Ngāti Manukau formally expressed their interest in the Omaha Tanko wetland greenway path. A site walkover with Sandra Hawkins, representing Ngāti Wai, and Fiona McKendry representing Ngāti Manukau of the proposed Omaha Tanko greenway path was conducted on Monday 30 April 2018.

Community Engagement

Community engagement for the feasibility study targeted key stakeholder groups with particular knowledge, passion and vested interest in this pathway, namely the Omaha Beach Community (OBC), Maitai fishing Coastal Trail Trust (MCTT) and Whangateau Harbourcare, and local residents surrounding the pathway. OBC and MCTT have been actively involved in the development of the Rodney Greenways Plan routes and OSC have already initiated some feasibility work to progress the development of the Tanko section of the path. Whangateau Harbourcare are actively involved in promoting and preserving the health and conservation of Whangateau harbour and have intimate knowledge of the local environment. Continued engagement with these community organisations is of vital importance to access valuable local knowledge and ensure the feasibility study considers local community wants and needs. The primary methods of engagement have been emails, phone calls, attending community meetings as well as site visits discussing the characteristics of the site and how these will affect the design of the path alignment and construction. Follow up emails and further meetings have been arranged as necessary.

Feedback from engagement with key community stakeholders has been invaluable to the development of this study. Detailed knowledge of the site, community interest and efforts to date as well as the wants and aspirations of an active and highly engaged local community who are actively progressing the development of Omaha Tanko path were provided by these engaged.

Key Discoveries

- The Omaha peninsula and Whangateau harbour are areas of particular cultural significance to local iwi, and in particular Ngāti Manukau.
- Some sections of the path are widely supportive while others have mixed support amongst the local community.
- For the local Omaha community health and safety is a priority and primary driver for a greenway.
- Connecting local to the community centre / golf club is a priority.
- Flooding caused by increased rainfall is an increasing issue along the eastern coast of Whangateau harbour and the golf course.
- The southern reaches of the Whangateau Harbour are of particular interest to the Whangateau Harbourcare who are interested in extending the scientific reserve to include the southern arm, south of the Omaha Causeway (Wakokopu Creek).
3.0 Landscape Framework
3.1 Overview

This section covers a range of topics relevant to the site and context. Investigations are organized into sections that address a wide range of socio-cultural and environmental considerations at the scale of Omaha and the wider surrounding context.

Separated into key headings, an overview of each specific topic is explored. Strategic questions that need to be considered by the design team and/or community members before action should be taken have also been proposed. Areas that require additional detailed investigations are also outlined.
3.2 Regional Context

Located in the Rodney District, Omaha is a coastal settlement situated on the Mangatawhiri sandspit adjacent to the Tawharanui Peninsula. To the west is the Dome Valley and to the north, the Omaha Forests. The rural landscape consists of picturesque, fertile countryside extending south to the Mahurangi Peninsula and east to the Tawharanui Peninsula. The coastal edge is a variety of beaches, coves, inlets and sand spits. The main road network into the area either travels through, or to, a number of popular beach towns that experience increasing amounts of seasonal population growth.

The Mangatawhiri Sandspit is approximately 4 km long and 1 km wide, and separates the Whangateau Harbour from Little Omaha Bay. Residential subdivision dominates the eastern side of the sandspit while the harbour side of the peninsula is dominated by the Whangateau Harbour Esplanade Reserve and the Omaha Tariko Wetland Scientific Reserve. The reserve extends south towards the Waiokopu Creek. There is one major arterial road into Omaha in the form of a causeway over the harbour.

Known for its white sandy beach and uninterrupted gulf and inland views, Omaha originated as a beach resort. Now boasting 203 families who permanently reside in this community, this population is supplemented by weekenders who enjoy the natural amenities this region has to offer. The permanent population is expected to increase as new state highway improvements further reduce the commute to Auckland. To the west is Whiterth, the closest significant town.
### 3.3 Omaha’s Greenway Network + Socio-Cultural + Built Environment

#### Network Connectivity

The proposed routes for the Omaha Greenways create a loop connecting the subdivisions and natural amenities within the area via a combination of shared paths and footpaths. A key consideration during the design phase was to ensure that the path alignments connect into the existing pedestrian and cycling path networks.

The vision is to create a system of shared paths which create new and/or safer experiences for the community of Omaha and visitors.

These greenways connect into other proposed routes within the wider network framework plan for Rodney Greenways Paths and Trails Plan Pōhutu to Pakiri.

#### Socio-cultural

Omaha in Māori translates to the ‘place of pleasure’. During the development of Omaha, kākāriki (birds) had to be relocated. This led to the establishment of a series of sou which are now situated within Omaha to acknowledge those that have gone before. A unupa was also created.

With the population significantly increasing during the weekends, the primary focus of community activities and identity takes place during this time. Throughout the settlement there are a variety of tennis courts, bowling greens, kids playgrounds, reserves and all-weather boat ramps. An 18 hole golf course is located near to the Omaha Estuary and a variety of local clubs and facilities can also be utilised such as the community centre, golf club, bowls club, canoeing and outrigger club, surf club and the ocean swimming club.

The Whangaroa Harbour is on the circuit for international bird watching and is an essential location for enthusiasts with godwits, fairy terns, banded dotterels, wrybills, spotted crake and banded rail all found in this vicinity. The Omaha Tanko Wetlands Scientific Reserve Kahikatea Wetland reserve on the southern side of the Omaha Sandspit is also valued for its forest of Kahikatea and unique natural coastal edge.

#### Built Environment

Omaha is separated into two residential developments, with the original buildings located to the north and the newer, modern subdivision situated towards the southern end of the beach. The built environment is comprised of one or two storey high single dwellings. The built environment is primarily residential houses; however, in recent years some retail development has occurred.

In the 1970’s the causeway was built creating the most significant change in the harbour to date. This development affected the sediment and hydrological dynamics within the harbour.
3.4 Omaha’s Environment + Natural Hazards + Ecology

Environment

Omaha sandspit is bounded by the beachfront of Little Omaha Bay to the north-east by moderately steep hills to the south-east, including Te Kaie Point and by the Waikokopu Creek draining these hills into the Whangateau Harbour (an estuary) to the south and west. The entire site is located within a valley or basin that opens into Whangateau Harbour and the spit has enclosed the harbour mouth with alluvial and estuarine sediments forming tidal mudflats to the west and dune sands to the east.

Situated on a sandspit, Omaha has a unique coastal environment and is adjacent to the last remaining native Kahikatea forest in the region, the Taniko Forest. The Whangateau Harbour is located to the east and is home to some of New Zealand’s rarest birds and is abundant in shellfish. Sand dunes protect the beach and are the first line of defence against large storm surges. The naturalness of the harbour and extensive bird life is highly valued by residents. Nearby natural amenities include the Goat Island Marine Reserve, Pakiri Beach and Tawharanui Regional Park.

Natural Hazards

BEACH EROSION AND LAND INSTABILITY

As Omaha is located on a sandspit, the land is unstable and prone to periodic inundation by the sea. This and the combination of residential dwellings produce a hazard as conditions established by meteorological and tidal events creates erosion. Erosion occurring at the northern end of the spit and foredunes could pose a risk to built infrastructure.

As well as this Omaha is affected by north-easterly storms, exposing the beach to moderate energy waves. With these waves experiencing large variation in size and quantity, beach erosion is significant hazard for Omaha Beach.

SEA LEVEL RISE

As a beachfront community, sea level rise is a future natural hazard, if the sea level around the region is to rise by 500mm by 2100. It is predicted that Omaha spit will retreat. 5sm Low-lying urban areas will be impacted considerably as the east coast is more sensitive to future inundation.

Ecology

THE WHANGATEAU HARBOUR

The valleys leading down to the Whangateau Harbour were originally dominated by kauri, taneke, kohuhohe and tiata forests. Swamp forests dominated by kahikatea are also likely to have been associated with former wetland areas on the lower flat mudflats.

Recognized as the most unspoiled mainland estuary in the Auckland Region, the Whangateau Harbour is rich with shellfish, estuarine plants and healthy intertidal habitats which include wetlands, submergent, seagrass meadows and mangrove forests. The water clarity is superb due to the small catchment area and the filtering action produced by a large number of cockles. The Omaha Taniko Wetlands Scientific Reserve is also found within the harbour and is home to a rare Kahikatea swamp forest.

These various ecologies and associated processes are essential to maintaining the ecological health of the area.

CLASSIFICATION

Identified as a Significant Marine Ecological Area in the proposed Auckland Unitary Plan, the Whangateau Harbour contains the northern most estuary on the east coast of mainland Auckland. With significant ecological benefits, the estuary is one of the most important and highly valued in the Auckland region. Clean water from the outer Hauraki Gulf tidally flush the estuary ensuring the preservation of a high quality ecological system.

Protection of the estuarine vegetation, in particular the salt marsh should be encouraged. To prevent coastal erosion, estuarine vegetation maintenance control with the retention of the natural shoreline contour is essential.

FISH

Within Whangateau Harbour and its entrance, 47 fish species have been recorded. The soft sandstone reef complex adjacent to Horsehead Island is an important fish nursery hot-spot which is found within the Whangateau Harbour. Fish such as cod and horse mackerel are also found within the Harbour’s waters.

BIRDS

Crustal food sources along intertidal sand banks provide a rich feeding ground for birds that are present within the Whangateau Harbour. These include both New Zealand endemic wading birds and threatened species as well as internal migratory birds.

These birds include:
- Caspian tern (‘nationally vulnerable’)
- White-faced heron
- Bar tailed godwit
- New Zealand dotterel (‘nationally vulnerable’)
- South Island pied oystercatcher (‘at risk declining’)
- Variable oystercatcher (‘at risk recovering’)
- Little egret
- Reef heron (‘nationally vulnerable’)
- Pied stilt (‘at risk declining’)
- Banded dotterel (‘nationally vulnerable’)

ISSUES

In 2009 concerns associated with the ecological degradation in the estuary resulted in the Whangateau Harbour being added to the Auckland Council estuary monitoring programme.

With further urban expansion, there is potential for an increase in contaminants from stormwater runoff which could pose a potential critical threat to existing ecosystems. This is especially consequential given the value of the Whangateau ecosystem and the presence of sensitive species. Increase in mangrove cover, increased mudflats, reduced community and habitat diversity through increased sedimentation could lead to the direct loss of sensitive species.

Urban expansion also creates threats such as the loss of habitat and the disturbance of a number of threatened bird species.

Additional images of birds include:
- Caspian tern
- White-faced heron
- Bar tailed godwit
- New Zealand dotterel
- South Island pied oystercatcher
- Variable oystercatcher
- Little egret
- Reef heron
- Pied stilt
- Banded dotterel
3.5 Omaha Greenways | Existing Site

Attachment B

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A network of paths lead through the sand dunes to a spacious, white sandy beach. Located within Little Omaha Bay, this area is a great spot for surfing and small boats. Overlooking the Upper Omaha Island and Great Barrier Island can be seen.
4.1 Overview

The design overview outlines path and boardwalk parameters, arranging the Omaha Greenways into a sequence of sections, each with their own constraints, opportunities and unique characteristics. The set of maps as outlined in Chapter 5 - Project Staging, identify the existing character of the area and the indicative alignment of the path.
4.2 Omaha Greenways | Proposed Route Options

The amended design proposed in this report has been developed from priority route 24, which is outlined in the Rodney Greenways Paths and Trails Plan: Pūhoi to Pakiri. This original plan was taken into consideration during the design phase, however it was identified that the initial loop is not feasible because of the lack of connection between the existing network and the proposed routes. There was also no evidence of a junction between the existing cycleway and route 24.

Various options have been investigated throughout the design phase and these have been centred around providing numerous points of access for the public as well as connecting to the existing shared paths, cycleways and footpaths around Omaha.

Through public consultation, it was recognized that there is a need for specific sections to be developed first and the overall framework plan was designed to ensure that each area can be built as separate segments. Working with this information the proposed route options outline priority developments: Section 1 and Section 2, as well as future path options; Section 3, Section 4, Section 5 and Section 6. Section 7 has been identified as a route that will require access permission from landowners, resulting in it involving a more complex delivery. Section 4 is also more complex as the Department of Conservation has highlighted issues that will affect the current ecological system. However, Section 4 is a wider route that allows for a greenway to be created via a boardwalk, connecting through to the boardwalk proposed in Section 7.

Section 3 has been proposed by Frame Group during their feasibility report of the Omaha Tanko Wetland Scientific Reserve Walking Trail. This 1.5m compacted gravel path is situated next to the existing predator fence; however it is not considered a greenway, resulting in the inability for bikes and pedestrians to share the route.

Section 5 is the favourable option as it does not affect the ecology and is a more cost effective choice.
4.3 Core Design Principles

The following design principles have been formulated from principles adopted within the Local Path Design Guide (March 2017)

**Safe**

Safety and a stress-free environment are core tenets of achieving a successful local path. Conflict points such as high vehicle numbers and high speeds should be minimised by providing a consistent level of experience across the path network. Crime prevention and enhanced social safety are also key outcomes of well-designed local paths.

**Accessible & Comfortable**

Path infrastructure should be accessible for all users, including children and people with disabilities. Considerations include ample width, gentle gradients, smooth transition in surfaces, and avoidance of high volumes of traffic that create fumes and noise.

**Connected**

Local paths should connect destinations such as residential neighbourhoods, schools and universities, town centres, transit stations, and bicycle facilities. They should seamlessly connect to the wider transport network including express paths. Additionally, these connections should be designed to be easily navigated. Where intuitive design is unachievable, clear and consistent wayfinding signage should be employed.

**Enabling**

Local community and stakeholders should be engaged early in the process to incorporate Te Aranga principles and community driven initiatives. Local paths should integrate with the existing streetscape and celebrate Auckland’s unique character by responding to and incorporating elements of the surrounding natural and built environment, heritage and culture. Opportunities to include ecological function through planting, water sensitive design, and low energy/low toxicity materials should be integral to each Local path design.
4.4 Path & Boardwalk Parameters

Design Strategy

What is a Shared Path?
A Shared Path is a wide unimpeded path for walking and cycling. They are designed to be safe for all users and are typically 3m wide.

Proposed Standard
Given the expected users, the recommended classification for walkers is Path - Urban Residential, as defined in the NZ Handbook for Tracks and Outdoor Structures (SNZ HB 8630:2004) and the appropriate grade for cyclists is Grade 1 as defined by the Cycle Trail Design Guide prepared by the Ministry of Tourism.

Spatial Requirements
Design user envelopes proposed for a shared path are:
- Pedestrians: 1500 mm
- Cyclist 1000 mm
- 500 mm user separation
The desired width of a shared path is 3 metres. The desired width for a connecting path is 2 metres.

Path Offsets
Minimum Width
- Shared path zone - 2500mm at pinch points. Consider lane separator markings in these areas.
- Minimum Offset
  - The path alignment should allow for a minimum: 500mm clearance from all existing site features (existing trees, furniture, vegetation etc).
  - All landscape elements (furniture, retaining vegetation barriers, etc.) along path edge must be offset a minimum of 500mm from shared path zone.

Long Fall
1.333% (3%) is considered the maximum desirable gradient along the length of the path. Gradients of 1:20 (5%) or greater are acceptable over short distances and are preferable where strict adherence to maximum desirable grade would result in deviation from straight or desired route and/or would result in additional earthworks.

Cross Fall
The cross fall of paths should be as flat as practical while ensuring rainwater drains off the surface.

Structures
Timber boardwalk with 3 m deck width. Preference to be in size ramped section to be gradients of 1:20 (3%) up to a maximum gradient of 1:12 (8%) with landing platforms.

Safety from Falling
Provision must be made to eliminate the risk of falling from the path. The Taruheru River Path will employ the following general rules for various fall heights:
- Access barriers are not required for all effective fall heights below 1.5 m.
- Based on SNZ HB 8630:2004 the proposed boardwalk is assessed with a maximum fall height of 1.0 m before acquiring a barrier.
- Based on the safety assessment of the boardwalk, the fall surface category deemed suitable is ‘Favourable’, which represents surfaces such as grass and sand. Refer Table 21 in SNZ HB 8630:2004.

The recommended classification of walkers for the boardwalk is Urban Residential (UR) and Short Stop Traveller (SST), as defined in SNZ HB 8630:2004.
- Timber kerbs - to be provided on boardwalk without barriers or handrails for all falls > 1000 mm.
- Type II - Access Barriers to be provided on ramps and boardwalks with effective fall heights between 1.5 - 3.0 m for UR and SST groups.
- Type A - Access Barriers to be provided on ramps and boardwalks where the effective fall height exceeds 3.0 m for UR and SST groups.
4.5 Surface Strategy

The surface treatment of the path assists in determining the accessibility, safety, comfort and experience of the Omaha Greenways. It is also the key factor dictating the durability, life expectancy and maintenance requirements of the path.

**TIMBER BOARDWALK**

- Timber surface kit to be used on all bridges and boardwalks. TEQ certified hardwood or 3% treated pine decking boards with aluminium metal retainers to achieve required slip resistance coefficients. Thanks to its natural permeability, it is often preferred over dense concretes and sealed timbers. Lumber joists and metal sleeper bars are to be fixed with a black flexible adhesive finished flush with the timber surface.

**BOUND GRAVEL PATH**

- Compacted gravel path to be used on Section 5, Omaha Traffic Islands Walk Trail and components of Section 1 - Semaphore South Boardwalk/Goods Path Connection. Tables for dimensions and sections to be fixed in the compacted base and finished flush with the timber surface.

- Quake Bond aggregate selection to be placed over a compacted base and surface to engineer’s specification. Changes in level requiring steps should be clotted using timber-boarded steps.

**BRUSHED CONC. FINISH**

- Includes concrete paving in 10mm ballast clay mix. Add gravel (50% Clean/sour) lightly improved aggregate or brushed finish. To be installed over a compacted base and finished flush with the timber surface. Provide edge detailing to the pavement edge. Allow for saw cuts and construction joints as required by the engineer. For cycle path purposes, see only cut joints at a maximum width specified by the engineer. If required or formed joints are required, see at the joint may be necessary to provide a smooth transition. Avoid long edge connections. Paint in a large (50%) but not where applicable. Construct new concrete to match existing feature eg a cutback or steam bending. Engineer to provide concrete strength and reinforcement detail. Allow for vehicle loading where applicable. For repair - whole panels should be replaced (from expansion joint to expansion joint).
4.6 Hard Landscape Strategy + Greenway Structures

The hard landscape elements include all the constructed, built and fabricated objects and structures that help to make up the Omaha Greenway. They include bridges and boardwalks, retaining walls, seating, signage and path markings, and lighting if required.

HARD LANDSCAPE ELEMENTS

FURNITURE

Path markings should be located at the beginning and end of all shared paths, with additional markings situated along any intersections with other paths or roads and regularly along the path to prevent users from being lost along the path.

TIMBER KICK RAIL

A 50mm x 75mm web timber kick rail to be be fixed to the edge of all boardwalks providing a ballast strip less than 50mm high, tempered proof, in 60mm lengths to be counterailed and sunk to suit basket dimensions and loadings. Larger fixing holes to be filled with black flexible sealant.

ARMADILLO CYCLE LANE SEPARATOR

A low profile traffic separator for cycle lanes. Constructed from 100% recycled PVC, the Armadillo Cycle Lane Separator has high impact resistance.

PATH MARKINGS

WAIFINDING SIGNAGE

WAYFINDING SIGNAGE provides users with direction to key destinations and are placed at all entry and exit points at intersections and key "change point" locations.

RETI WALS

STRUCTURES

RETAINING WALLS

Structuring walls will be integrated into the slops above and below the Omaha Greenway where the ground cannot be reinforced to meet the surrounding conditions. These retaining wall types are proposed: timber pile retaining walls for all non-visible retaining walls down slop of the path which should be concealed beneath the path construction, and visually screened using planters where appropriate. For visible retaining walls, up slope for the path less than 1 metre high and to the concrete retaining wall should be utilised. Retaining wall outlines of the path greater than 1.3 metres high are to be timber pile retaining wall, stained stairs with vegetation and climbing frames for wider areas.

BRIDGES AND BOARDWALKS

Bridges and boardwalks to be constructed from either FSC certified hardwood and/or treated pine timber to the required treatment level for application. All piles to be used for surfaces and RS piles for structures and foundations. (RS) treated hardwood and fibre. All timbers FSC certified hardwood or HR pine timber boards to be used for deck surface with aluminium/ steel rails to achieve required fire resistance requirements. Spacing between decking boards to be 60mm. Footings to be concrete foundations at either end of all bridges and boardwalks. Timber pile foundations to be utilised to support all bridges.
4.7 Arts + Culture

Several opportunities for the integration of arts and culture into the proposed path alignment have been identified by key stakeholders. The following map indicates what and where these opportunities exist.

Mana Whenua representatives have confirmed that Te Aranga Design Principles are a useful and desired framework to use (as a starting point) to identify and explore opportunities for this project. During on-site conversations Mana Whenua have identified multiple opportunities to apply Te Aranga Principles most explicitly through the principles of Mana, Whakapapa, Mauri Tu, Moana Tu and Toi Aho. During the design phase Mana Whenua have indicated their intention to recommend placement of mahi tenu elements along the path.

Arts and culture along the proposed route can be expressed and celebrated through a wide range of opportunities including both standalone cultural and artistic artefacts as well as through existing or new infrastructure developed in association with the design and construction of the path. These include public art, community art, wayfinding, interpretative signage, infrastructure, and ecological restoration. Examples of path infrastructure that can integrate arts and culture are seating, drinking fountains, boardwalks, puntings, bridge balustrades and lighting. Ecological restoration elements should consider the re-establishment of mahinga kai sites along the path where appropriate.

In parallel with Te Aranga Design Principles the various opportunities for the integration of arts and culture have been identified under the following themes:

- Mahi tenu
- Social & Community Engagement
- Ecological and Cultural Narratives
- Prominent Views

**KEY**

- Opportunities for the Integration of Arts and Culture
- Mahi tenu
- Social & Community Engagement
- Prominent Views
- Ecological & Cultural Narratives

**KEY - Te Aranga Design Principles**

- Mana - Ngāti Whānui iwi Authority
- Whakapapa - Names & Naming
- Toi - Whakaka a Toi
- Toi - Kai Whakahaere a Toi (Designer's View)
- Toi Aho - Cultural Expression
- Whakapapa - Living Presence

Mana Whenua have expressed interest in naming the path and want this to be done sooner rather than later (even if it's not critical yet).
5.1 Overview

The project staging explores how each section can be implemented as a stand-alone path. As well as this, a detailed description of each section is outlined, alongside further opportunities and foreseen constraints. Each section is as follows:

Section 1 - Omaha Drive to Omaha Golf Club
Section 2 - Brodlands Drive shared path (safety improvements)
Section 3 - Omaha Taniko Wetlands Walk Trail
Section 4 - Whangatateau shared boardwalk via esplanade reserve
Section 5 - Widen footpath along Mangataviri Road
Section 6 - Widen Omaha south existing path network
Section 7 - Whangatau south shared boardwalk & path connections
5.2 Omaha Greenways | Section 1
(Omaha Drive to Omaha Golf Club)

Spanning from Omaha Drive to Omaha Golf Club, a 2.5m concrete shared path is proposed with the aim of connecting northern Omaha through to the roundabout. Situated mostly within the road corridor, the proposed location of this path is on the grass which runs adjacent to the road between the golf boundary fence and the edge of seal. The path does not interfere with current parking which is used by Omaha Beach Bowling Club on the bank located within the Omaha Reserve.

A pedestrian refuge is proposed across North West Anchorage to provide a safe passage. Auckland Transport has primary land ownership so it is recommended that ATCoP Chapter 13 - Cycling Infrastructure Design is applied to this section. It should be noted that the land ownership transitions from Auckland Transport to Auckland Council along the route.

ATCoP requires lighting however lighting is not supported by the residents within this section and a departure will be required.

**Proposed Scope Statement**

Section 1 - Omaha Drive to Omaha Golf Club
1A - 820m long 2.5m wide concrete path mainly within Auckland Transport road corridor and the Omaha Golf Course boundary.
OPPORTUNITY 1B - 348m long 1.8m wide concrete footpath within Auckland Transport road corridor between Success Court and North West Anchorage.
5.2 Omaha Greenways | Section 1
( Omaha Drive to Omaha Golf Club)

Existing Character

- Mostly flat terrain with established trees and areas of scrub vegetation separating the Omaha Beach Golf Course and Omaha Drive.
- A golf course and a practice area is situated adjacent to Omaha Drive.
- There are no footpaths on the sides of the roads.
- Omaha Drive is a residential road with a speed limit of 50 km/h.
- The road is heavily used by boat trailers during weekends and holiday periods.
- Houses occupy the eastern side of the road, with associated driveways.
- Informal parking on road reserve near Omaha Beach Golf Club.

Opportunities

- There is further opportunity for Auckland Transport to create a connection via a concrete footpath through to Success Court; however this part of the scope was expressed during the engagement phase.
- Opportunity to close one driveway through to the Golf Club Operations Area to improve safety.
- Plant specimen trees to provide additional protection from golf balls.
- Parallel parking is accommodated next to the path.

Consenting Requirements

- AUP Zoning
  - Open Space - Sport and Active Recreation Zone

Limitations

- Overland Flow Path and Flood Plain
- Unknown Archaeology or instability issues.
- Outstanding Natural Features Overlay ID B4- C Mangatawhiri Barrier Spill (Omaha Spill). Mangatawhiri barrier spill is composed of unconsolidated Holocene coastal sediments deposited either side of an initial barrier ridge. The landfill records the episodic depositional history of the area, and although modified by urban development still contains good examples of sand dunes and a small area of fossil beach ridges. The spill has been the site of historic beach erosion issues affecting dwellings built on the dunes.

Next Steps

- Investigations and Assessments required
  - Arboricultural Assessment
  - Site design approval from AT including exclusion of street lighting

- Design and Consulting
  - Developed Design
  - Assessment of environmental effects
  - Resource consents

Land Ownership

- Auckland Transport (Road Corridor)
- Auckland Council (Omaha Golf Course)
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OCCUPATION: A - 1.6m wide footpath
(to be constructed within AT road corridor)

SECTION A - 2.5m wide concrete path

EXPOSED AGGREGATE WITH BROKEN SHELL
Exposed aggregate with broken shell to match existing footpath throughout

Attachment B
5.3 Omaha Greenways | Section 2
(Broadlands Drive shared path - safety improvements)

At 2.5m wide, the existing chip seal road shared path along Broadlands Drive connects Jones Road to the roundabout entering Omaha. The separation between the cars travelling at 80km/h and the cyclists and/or pedestrians has been achieved using vertical separators. Additional safety measures are proposed such as the installation of armadillo cycleway protectors. This shared path connects to the Matakana cycleway which was established by the Matakana Cycle Trail Trust and provides a link from Matakana to Omaha and Point Wells.

There is an opportunity to explore a speed reduction from 80 km/hr to 50 km/hr from the Broadlands Drive / Jones Road intersection to provide a safer roadside environment.

Proposed Scope Statement

Section 2 - Broadlands Drive shared path
Improvements
Improved separation treatment of existing on road shared cycling / pedestrian path.
OPPORTUNITY: Consideration of speed reduction along Broadlands Drive from Jones Road (80km/hr to 50 km/hr).
5.3 Omaha Greenways | Section 2
(Broadlands Drive shared path - safety improvements)

Existing Character

- The causeway connects Omaha Flat through to Omaha beach crossing the Whangateau Harbour.
- Small trees are situated between the shared path and the sea wall.
- Broadlands Drive has a speed limit of 80km/h.
- The bridge located midway along the causeway is a pinch point that only allows for a single shared path to cross. Along this bridge, timber and metal barriers are present.

Constraints

- High traffic volume and high-speed area.
- Underlying road base may not be suitable for securing separation devices.
- Safety risks for construction workers.

Opportunities

DRAFT OPPORTUNITIES PROPOSED IN GREENWAYS PLAN
- Broadlands Drive would benefit from better vehicle/walking-cycling separation.

ADDITIONAL OPPORTUNITIES
- Forms a link with the existing Motahana Cycle Trail Trust network.
- Provides a connection with proposed Section 1: Omaha Drive to Omaha Golf Club.
- Possible speed limit reduction along Broadlands Drive (Auckland Transport to consider).
- Potential for a raised table to be placed before the roundabout.

Consenting Requirements

AUP ZONING
- Road Reserve

LIMITATIONS
- Flood Plain
- No known Archaeology or instability issues.

PLANNING CONSIDERATIONS
- Road Reserve
  - Road Network Activities including paths are permitted under E26.2.3.2(A67).
  - Assumed Earthworks of less than 2500m³ are required (otherwise Restricted Discretionary Consent is required under E26.5.3.2(A106)).
  - Tree removal involving trees less than 4m in height and/or less than 400mm in girth is permitted (otherwise Restricted Discretionary Consent is required under E26.4.3.1(A92)).
  - Road Network Activities within flood hazards is permitted under E26.4.1(A81).

PLANNING CONCLUSIONS
- Works in the Road Reserve are anticipated to be a permitted activity unless tree removal and earthworks are greater than the permitted thresholds identified above.

Land Ownership

- Auckland Transport (Broadlands Drive)

Next Steps

Assessments required
- AT to assess safety improvements and speed reduction opportunity.
5.4 Omaha Greenways | Section 3
(Omega Taniko Wetlands Walk Trail)

The Omaha Taniko Wetlands Walk Trail was initially proposed by the Omaha Beach Community who engaged Frame Group to undertake a feasibility study and concept design. The pathway proposes a 1.6m wide gravel path. Designed primarily as a walking track, this 2.2km long route will pass through open grass areas located between the mature Kahikatea swamp forest and saltmarsh, and the predator fence. Connecting the existing path network at southern Omaha through to Broadlands Drive this path provides a different route to the road, traversing through a natural amenity where users can engage with the ecology and protected Omaha Taniko Wetlands Scientific Reserve.

The proposed path is not defined as a greenway or shared path as it is primarily designed for walkers to access to Taniko Reserve.

Due to wet weather conditions over the past two winter seasons OBC have raised significant concerns about the impact of the raised path on the flooding impacts to the adjoining golf course. During engagement with OBC they stated that they no longer support this proposal.

**Proposed Scope Statement**

Section 3 - Omaha Taniko Wetlands Walk Trail
2.2km long 1.6m wide compacted gravel trail within Omaha Taniko Wetlands Scientific Reserve. This path is designed primarily for walking only.
Attachment B

Item 13
5.4 Omaha Greenways | Section 3
(Omaha Taniko Wetlands Walk Trail)

Existing Character

- The Omaha Taniko Wetlands Scientific Reserve is a critically endangered Kahikatea swamp forest and is the last remaining stand of native Kahikatea forest in the region.
- Timber and mesh predator fence is situated on the periphery of the wetland.
- The Omaha Golf Course is located to the east of the predator fence.
- Definition of a Scientific Reserve: The principal purpose of these reserves is the protection and preservation in perpetuity of areas for scientific study, research, education and the benefit of the country. Entry to all or part of a reserve may be restricted to permit holders.

Constraints

DRAFT CONSTRAINTS PROPOSED IN GREENWAYS PLAN
- Some sections may be tidal.
- Complex ecological and cultural overlays.

ADDITIONAL CONSTRAINTS
- Flood plain area which results in swampy ground condition.
- The proposed track may exacerbate existing flooding of the adjacent golf course.
- Special consideration will have to be taken when designing this route to ensure that any potential effects created from this project are limited. A suitable route alignment has been agreed with DoC during the Frame Group concept design process.
- The southern end of the path requires further design consideration to ensure the golf course continues to function. The proposed path passes in close proximity to a few off areas.
- Any timber boardwalk section required will require a slip resistant surface as the area is shaded and often wet.

Opportunities

- To install interpretive signage for educational purposes.

Consenting Requirements

AUP ZONING
- Open Space- Conservation Zone.

LIMITATIONS
- Overland Flow Path
- Known instability issues.
- Various recorded archaeological midden sites in proximity to the proposed path.
- Significant Ecological Areas Overlay - SEA_T_5478 Terrestrial
- Mangatawhiri Barrier Spit ( Omaha Spit) Mangatawhiri barrier spit is composed of unconsolidated Holocene coastal sediments deposited either side of an initial barrier ridge. The terrigenous records the episodic depositional history of the area, and although modified by urban development still contains good examples of sand dunes and a small area of fossil beach ridges. The spit has been the site of historic beach erosion issues affecting dwellings built on the dunes.
- Natural Heritage: Outstanding Natural Landscapes Overlay - Area 33, Omaha Kahikatea Swamp Forest
- Natural Heritage: High Natural Character Overlay - AREA 33, Omaha.

FLANNING CONSIDERATIONS
- Recreational Trails are a permitted activity under H79.1 (A49) or Rule E27.1 (A10) providing for "off-road pedestrian and cycling facilities" (Chapter E27 Transport) as a permitted activity in all zones, subject to compliance with relevant standards.
- Earthworks for installation of walking tracks requires consent under E124.3(A38) for earthworks more than 2m² due to being within identified natural feature of Mangatawhiri Barrier Spit (Omaha Spit). Requires Restricted Discretionary Consent.
- Vegetation removal within a wetland management area overlay under E154.1(A11) and an ecological overlay (SEA-T) under E154.2(A43) is a discretionary activity.
- Various recorded historical sites - Archaeological assessment required and an Authority to Modify obtained from Heritage New Zealand.

PLANNING CONCLUSIONS
- Discretionary Resource Consent is required for earthworks and vegetation removal in an area with high natural and ecological value.
- Assessment from an archaeologist will be required due to the ecological value of the area. Potential arborist input will also be required dependent on the size of the trees encountered.
- Given the presence of identified Midden sites, input from an archaeologist will be required and an Authority to Modify obtained from Heritage New Zealand.
- Overall, it is considered any such application is low to medium risk subject to appropriate design methodology and mitigation.

Land Ownership

- Auckland Council (Omaha Golf Course)
- The Crown (Omaha Taniko Wetlands Scientific Reserve)

Next Steps

Investigations and Assessments required:
- Significant Ecological Area - Terrestrial (SEA-T)
- Ecological Assessment
- Environmental Impact Assessment (EIA)
- Topographical Survey
- Archaeological assessment
- Geotechnical testing
- Arboricultural Assessment
- Flooding Assessment

- Design and Consenting
  - Developed Design
  - Assessment of environmental effects
  - Resource and building consents
  - Construction documentation
SECTION 3 - 1.6m wide gravel path

COMPACTED GRAVEL PATH

Surface to be self binding basalt aggregate rolled or compacted. Final aggregate to be to a compacted quarry dust or gravel finish. Quarry Dust aggregate selection to be placed over a compacted base and subbase to engineer specification.
5.5 Omaha Greenways | Section 4
(Whangateau east shared boardwalk via esplanade reserve)

Located on the edge of the esplanade reserve, a 2.2m wide shared boardwalk along Broadlands Drive and Omaha Drive has been proposed as a greenway of new boardwalks and footpaths to improve frontage to the Scenic Reserve. The proposed boardwalk will provide a safe and accessible route for non-motorised transport through the coastal area.

Proposed Scope Statement

Section 4 - Whangateau east shared boardwalk via esplanade reserve
A 2.2m wide shared boardwalk along Broadlands Drive and Omaha Drive will provide a safe and accessible route for non-motorised transport through the coastal area.

Attachment B
Item 13
5.5 Omaha Greenways | Section 4
(Whangateau east shared boardwalk via esplanade reserve)

Existing Character
- Estuarine system with low swamp grass and mangroves
- Whangateau Harbour coastal edge and bordered the Omaha Tamaki Wetlands which includes the Kahikatea swamp forest
- Views of the expansive Whangateau Harbour, along with the causeway.

Constraints
- The Marine and Coastal Area Act 2011 is applicable.
- Some sections may be tidal
- Complex ecological and cultural overlays
- Not supported by Ngati Maniapoto or Department of Conservation staff during feasibility study engagement
- To construct the path, some mangroves and reeds will need to be removed. During this process the existing ecology needs to be considered to ensure that the impacts are minimal.
- Requires high level of risk associated with obtaining resource consent

Opportunities
- Increase accessibility and amenity values via a shared boardwalk
- Install rest areas and viewing platforms

Consenting Requirements

**AUP ZONING**
- Coastal - General Coastal Marine Zone

**LIMITATIONS**
- Natural Heritage: Outstanding Natural Features Overlay - ID 84, Mangiapawhi Barrier Spit (Omaha Spit)
- Natural Heritage: Outstanding Natural Landscapes Overlay - Area 33, Omahi Kahikatea Swamp Forest
- Natural Heritage: High Natural Character Overlay - AREA 53, Omaha
- Natural Resources: Significant Ecological Areas Overlay - SEA-M1-83c: Marine 1

**PLANNING CONSIDERATIONS**
- The Boardwalks' structure will be lower than Mean High Water Spring Tide and therefore within the Coastal Management Area. The use and occupation of activities within the general coastal marine zone below mean high water springs which do not have a functional need to be below high tide are a non-complying activity under F2.19 (8)(A)(B)
- Furthermore, the Marine and Coastal Area Act 2011 is applicable. It noted the position of the esplanade reserve will have likely changed due to the area of Mean High Water Spring Tide changing which means this land is likely now vested with the Crown. The position of the path may need to be adjusted subject to further investigation of where mean high tide now lies while being aware of ecological considerations.
- In terms of the concrete section of paths outside of the coastal management area, Recreational Trails are a permitted activity under Rule E27.4 (1A)(c) provides for “off-road pedestrian and cycling facilities” (Chapter E27 Transport) as a permitted activity in all zones, subject to compliance with relevant standards.
- Any native vegetation removal within the general coastal marine zone, a significant ecology marine area and an outstanding natural feature is a non-complying activity under F2.19 (4)(A)(2). An ecological assessment will be required as will consideration of any bird and marine life present.
- Earthworks for installation of walking tracks requires consent under F12.4 (A)(3) for earthworks more than 2m² due to being within identified natural features of Mangiapawhi Barrier Spit (Omaha Spit). Requires Restricted Discretionary Consent

**PLANNING CONCLUSIONS**
- Overall, the proposal will require consent as a non-complying activity. It is considered any such application of a moderate to high risk. Although the path is to be located on esplanade reserve it is now within the coastal management area and subject to various different character overlays and the path has the potential to impact on these values if not designed correctly with appropriate methodology.
- A coastal impact assessment, ecology assessment and visual assessment will be required. It is recommended an ecological investigation be carried out first to establish the ecological values of the areas where the path is proposed path in order to inform the overall design.
- Consultation work will be required with iwi who have interests or claims in the area under the Marine and Coastal Area Act 2011.

**Land Ownership**
- Coastal marine area (CM4)
- Auckland Council (Local Purpose Esplanade Reserve?)
- The Crown

---

**Next Steps**

Investigations and Assessments required
- Significant Ecological Area - Terrestrial (SEA-7) - Ecological Assessment
- Environmental Impact Assessment (EIA)
- Topographical Survey
- Archaeological Assessment
- Geotechnical testing
- Arboricultural Assessment
- Flooding Assessment

Design and Consenting
- Developed Design
- Assessment of environmental effects
- Resource and building consents
- Construction documentation
SECTION A: 2.2 - 3.0m wide concrete path

SECTION 4A: 2.2 - 3.0m wide timber boardwalk (with kickrails)

Exposed aggregate with broken shell

2.2 - 3.0m

Section E: 1:50

INDICATIVE HIGH TIDE LEVEL

Local Purpose Reserve

Timber Boardwalk (with handrails)

FC certified hardwood or I-5 treated pine decking boards

2.2 - 3.0m

Section F: 1:50

Path

Local Purpose Reserve

Rodney Local Board Parks and Recreation Committee
20 September 2018

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5.6 Omaha Greenways | Section 5
(Widen footpath along Mangatawhiri Road)

Providing another option for connecting the south of Omaha to Broadlands Drive, this proposal includes widening the existing 1.8m footpath along Mangatawhiri Road to create a shared 2.5 - 3m wide path. This option is the most feasible, cost-effective and least invasive to existing protected ecologies as it does not pass through Omaha Tanko Wetlands or the estuary. In some areas, there will be pinch points which will require the path to be reduced to a width of 2m.

**Proposed Scope Statement**

Section 5 - Widen footpath along Mangatawhiri Road
Widen 1.8m path to 3m wide concrete shared path within Auckland Transport road reserve.
5.6 Omaha Greenways | Section 5
(Widen footpath along Mangatawhiri Road)

Existing Character

- Wide, open road situated within a residential subdivision
- Existing footpath on the eastern side of Mangatawhiri Road
- A series of roads lead to additional residential properties on the eastern side of the road as well as various walkways which lead to Omaha Beach
- Extensive network of connecting paths within the dune adjacent to Mangatawhiri Road

Consenting Requirements

AUP ZONING
- Road Reserve

LIMITATIONS
- Flood Plain
- No known Archaeology or instability issues

PLANNING CONSIDERATIONS
- Road Reserve
  - Road Network Activities including paths are permitted under E26.5.3.2(A57)
  - Assumed Earthworks of less than 2500m³ are required (otherwise Restricted Discretionary Consent is required under E26.5.3.2(A106))
  - Tree removal involving trees less than 4m in height and/or less than 400mm in girth is permitted (otherwise Restricted Discretionary Consent is required under E26.4.1(A92))
  - Road Network Activities within flood hazards is permitted under E26.4.1(A53)

PLANNING CONCLUSIONS
- Works in the Road Reserve are anticipated to be a permitted activity unless tree removal and earthworks are greater than the permitted thresholds identified above.

Land Ownership

- Auckland Transport (Road Corridor)

Next Steps

Investigations and Assessments required
- Shared path to be considered and programmed by Auckland Transport
- Topographical Survey
- Geotechnical testing

Design and Consenting
- Design
- Resource consent if required
SECTION 5: Widen existing concrete footpath to 2.5 – 3.0m wide
5.7 Omaha Greenways | Section 6
(Widen Omaha south existing path network)

A circuit of concrete footpaths, within the southern residential subdivision are proposed to be widened to 2.5 to 3m. This is aimed at creating a safer shared path experience for cyclists and pedestrians. This addresses existing conflicts between pedestrians and cyclists on the relatively narrow paths. In some areas there will be pinch points which will require the path to be reduced to a width of 2m.

The proposed widening works avoids the fossilised beach area where Rahui Te Kiri Reserve is located to ensure that the archaeological site is preserved.

Proposed Scope Statement

Section 6 - Widen Omaha south existing path network
Widen 1.3km of selected dune walkway circuit to 2.5 - 3m wide concrete shared path to improve safety and usability.

Photo locations
5.7 Omaha Greenways | Section 6
(Widen Omaha south existing path network)

Existing Character

- Existing narrow concrete footpath network leading from the residential area through to the beach.
- Dunes with dune binding plants such as grasses and sedges.
- Wide expansive views over Little Omaha Bay and into the Hauraki Gulf looking towards Great Barrier Island.

Constraints

- Ecological impacts on the surrounding dunes.
- Archaeological sites in close proximity will require Authority to Modify
- Visual impacts to residents.

Opportunities

- Improved safety for walking and cycling through the existing path network.

Consenting Requirements

**AUP ZONING**
- Open Space - Infill Recreation Zone
- Open Space - Conservation Zone

**LIMITATIONS**
- Significant Ecology Area Overlay.
- Flood Plain.
- No known instability issues.
- Various recorded archaeological midden sites in proximity to the proposed path.

**PLANNING CONSIDERATIONS**
- Recreational Trails are a permitted activity under H7.9.1 (A49) or Rule E27.41(A10) provides for "off-road pedestrian and cycling facilities" (Chapter E27 Transport) as a permitted activity in all zones, subject to compliance with relevant standards.
- Various recorded Midden sites - Archaeological assessment required and an Authority to Modify obtained from Heritage New Zealand.
- Vegetation removal within an ecological overlay is a discretionary activity under EA4.2(A43).
- Earthworks for installation of walking tracks requires consent under EA4.3(A38) for earthworks more than 2m² due to being within identified natural feature of Mangateawhi Barrier Spit (Omaha Spit) Requires Restricted Discretionary Consent.

**PLANNING CONCLUSIONS**
- Discretionary Resource Consent is likely required for earthworks and vegetation removal in an area with high Natural and ecological values.
- Assessment from an ecologist will be required due to the ecological value of the area.
- Given the presence of identified Midden sites, input from an archaeologist will be required alongside an authority to modify from Heritage New Zealand.
- Overall, it is considered any such application is low risk subject to appropriate design methodology and mitigation.

**Land Ownership**
- Auckland Council

**Next Steps**

**Investigations and Assessments required**
- Mana Whenua Engagement
- Ecological Assessment
- Environmental Impact Assessment (EIA)
- Geotechnical testing
- Topographical Survey
- Archaeological assessment

**Design and Consenting**
- Developed Design
- Assessment of environmental effects
- Resource and building consents
- Landowner approvals and land access assessments
- Construction documentation
SECTION 6 - Widen existing paths to 2.5m - 3.0m

Exposed aggregate with broken shell to match existing kitten track and dressed Olive foundation.
5.8 Omaha Greenways | Section 7
(Whangateau south shared boardwalk & path connections)

This section proposes a circuit through the Wainuiops Creek from Omaha sand spit around the periphery of the southern end of the Whangateau Harbour, access to Omaha Flats. The majority of the shared path consists of a 2.2m to 3m wide shared boardwalk, however proposed access points have been provided via 2.2m to 3m wide gravel paths through private property (subject to access permissions from land owners). The route follows the esplanade reserve within the Coastal Marine Area.

The feasibility of this section is medium to high risk of proceeding to implementation due to the various constraints and issues required to be resolved including consenting within CMA, landowner access approvals and significant funding requirements.

Proposed Scope Statement

Section 7: Whangateau south shared boardwalk and path connections
7A - Construct new 940m long 2.2-3m wide shared boardwalk through the Coastal Marine Area (CMA) adjoining the Taniko scientific reserve.
7B - Construct new 360m long 2.2-3m wide path through private property (subject to access permissions from land owners).
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5.8 Omaha Greenways | Section 7
(Whangateau south shared boardwalk & path connections)

**Existing Character**
- Tidal estuarine – Coastal Marine Area
- Views of the expansive Whangateau Harbour, along
  with the causeway.
- Soft, rolling hills transitioning into Vaiakopu Creek
  with a relatively flat expanse to the east.
- Estuarine vegetation such as mangroves and reeds.
- Omaha Flats side consists of pastoral land.
- No existing formal walkway.

**Consenting Requirements**

**AUP ZONING**
- Coastal - General Coastal Marine Zone (Boardwalk
  areas).
- Rural-Mixed Rural Zone (paths connecting to icons
  Road from boardwalk).

**LIMITATIONS**
- Coastal Marine Zone (All boardwalk areas).
- High Natural Character Overlay - AREA 53, Omaha.
- Natural Resource: Significant Ecological Area
  Overlay - SEA-M-1-R36, Marine 1.
- No known archaeological sites or instability issues.
- Rural-Mixed Rural Zone (paths connecting to icons Road
  from boardwalk).
- No known archaeological sites or instability issues.

**Planning Considerations**
- Coastal Marine Zone (All boardwalk areas).
  - The boardwalks structure will be lower than Mean
    High Water Spring Tide and therefore within the
    Coastal Management Area. The use and occupation
    of activities within the general coastal marine
    zone below mean high water springs which do not
    have a functional use to be below high tide are a
    discretionary activity under F2.18.6(A58).
  - Furthermore, the Marine and Coastal Area Act 2011
    is applicable. It is noted the position of the esplanade
    reserve will have likely changed due to the area
    of Mean High Water Spring Tide changing which
    means this land is likely now vested with the Crown.
    The position of the path may need to be adjusted
    subject to further investigation of where mean high
    tide now lies.
  - In terms of the concrete section of paths outside of
    the coastal management area. Recreational Trails
    are a permitted activity under Rule E27.4.1(A10)
    provides for “off-road pedestrian and cycling
    facilities” (Chapter E27 Transport) as a permitted
    activity in all zones, subject to compliance with
    relevant standards.

**Constraints**

**Draft Constraints Proposed in Greenways Plan**
- Some sections may be tidal.
- Complex ecological and cultural overlays.
- Some sections require agreement with private
  landowners.

**Additional Constraints**
- The Marine and Coastal Area Act 2011 is applicable.
- Public access entry and exit points are required for the
  boardwalk.
- Potential safety and security issues.
- Potential adverse effects on marine ecology.

**Opportunities**

**Draft Opportunities Proposed in Greenways Plan**
- Ecological improvements around the inlet, carefully
  assessed route selection.

**Additional Opportunities**
- Provide a shared walking and cycle route within
  the Whangateau Harbour inlet.
- Opportunity for seating/rest areas/breakouts.
- Connection to existing Matakanawa Cycle Trail through
  private property (subject to land access permission).
- Any native vegetation removal within the general
  coastal marine zone, a significant ecology marine
  area and an outstanding natural feature is a non-
  complying activity under F2.18.4(A42). Ecological
  assessment will be required, as well consideration of
  any bird and marine life present.
- Earthworks for installation of walking tracks requires
  consent under E12.4.3(A36) for earthworks more
  than 2m² due to being within identified natural
  feature of Mangateawhia Barrier Spit (Omaha Spit).
  Requires Restricted Discretionary Consent.
- Rural-Mixed Rural Zone (paths connecting to icons Road
  from boardwalk).
- Recreational Trails are a permitted activity under
  Rule E27.4.1(A10) provides for “off-road pedestrian
  and cycling facilities” (Chapter E27 Transport) as a
  permitted activity in all zones, subject to compliance
  with relevant standards.
- Earthworks for cycleways and footpaths are provided
  for under E12.4.1(A1) as a permitted activity.

**Planning Conclusions**
- Overall, the proposal will require consent as a
  non-complying activity. It is considered any such
  application s is of moderate to high risk.
- Although the path is to be located on esplanade
  reserve it is now within the coastal management
  area and subject to various natural character
  overlays and the path has the potential to impact
  on the ecological and natural values if not designed
  correctly with appropriate methodology.
- A coastal impact assessment, ecology assessment
  and visual assessment will be required. It is
  recommended an ecological investigation be carried
  out first to establish the ecological values of the
  areas where the path is proposed path in order to
  inform the overall design.
- Consultation work will be required with iwi who
  have interests or claims in the area under the Marine
  and Coastal Area Act 2011.

**Land Ownership**
- Auckland Council
- Private land, Lot 4 Deposited Plan 2061/22
- The Crown
- Private land, Lot 2 Deposited Plan 376/66

**Next Steps**
- Investigations and Assessments required
- Mana Whenua and DOC engagement
- Coastal Processes Assessment
- Marine Ecological Assessment
- Environmental Impact Assessment (EIA)
- Geotechnical testing
- Topographical Survey

**Design and Consenting**
- Developed Design
- Assessment of environmental effects
- Resource consent
- Landowner approvals and land access/earthworks
- Construction documentation
Riverhead, Victoria Street Greenway

Urban Solutions & Resilience Unit

Rodney Local Board Parks and Recreation Committee
20 September 2018

Attachment C
Item 13
# Contents

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Executive Summary

Overview

This report presents the feasibility assessment of the Victoria Street Greenway Path (B) projected by the Rodney Local Board, various routes identified in the Kumei, Huapai, Waiwakaihau, and Riverhead Greenways Plan. The location of the priority greenway project for Riverhead is an urbanized area, known as Victoria Street (B), linking the Riverhead War Memorial Park to the edge of the Rangitopuni Creek edge on the eastern side of the town. This greenway route also includes connections to adjacent sections of urbanized roads on George Street, Susuki Terrace, and Kent Street.

The proposed Victoria Street greenway is 690 metres in length and is an unnamed tributary of the Rangitopuni Creek, overgrown with sections of invasive species, which the community is eager to eradicate. Developing a greenway along this corridor will improve the connection between Riverhead and the towns to the north and south and contribute significantly to improving the ecology of the area.

The greenway work leads on from the Greenway Plan and is one of a number of steps within the project framework. As shown on the plan, the entire greenway route has been organized into sections that allow for a staged construction implementation to suit funding availability.

Engagement

Engaging with the Riverhead community and mana whenua has been an important part of the process and one of the key foundations to developing the Victoria Street Greenway. The continuation of the engagement process alongside professional knowledge has been an important contribution to the shared path proposals presented in this feasibility study.

Design Principles & Strategy Alignment

The feasibility study aligns with both the Kumei, Huapai, Waiwakaihau, and Riverhead Greenways Plan and the Rodney Local Board Plan 2017. The design principles have been formulated from a collaboration of best practice walking and cycling standards, the Auckland Design Manual and the Local Path Design Guide (March 2017). The design framework is based on the following principles: they must be safe, connected, accessible, comfortable, and enabling. Together they are intended to work with the Te Aranga Design Principles by avoiding more live-grown direction to the development of Victoria Street Greenway.

Key Findings

- The proposed priority route is an urbanized legal road and extends from Riverhead War Memorial Park to Rangitopuni Creek edge with an intention to link into the Riverhead Coastal walkway.
- The feasibility study has identified that subject to various constraints, the greenway path as scoped below provides significant benefits measured against the design principles and is feasible for progress further subject to securing funding.
- Installing a greenway framework now will strengthen the connectivity of the existing community, and provide opportunities for them to continue to engage with their environment and facilities of the town, establishing a solid platform in preparation for future population growth.
- The proposed routes extend into the land earmarked for future urban growth, providing a long-term vision of linkages between the old and new town.
- Currently, local streets are the foundation of route selection for these future greenway paths. Beyond the township boundary of Riverhead the proposed greenway routes intersect and expand into the rural landscape and connect into the wider path network serving Huapai, Kumei, and Waiwakaihau towns.
- A significant portion of the greenway crosses unformed roads that are administered Auckland Transport (AT). It is generally supportive of the proposed shared path and boardwalks.
- Opportunities to include ecological function through planting, water sensitive design and low energy/low toxicity materials should be integrated into path design.

Proposed Scope:

<table>
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<th>Section 1 - Riverhead War Memorial Park to Great North Road</th>
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<td>A - 320m long 1.8m wide concrete path and associated planting with interpretive signage</td>
</tr>
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<td>B - 43m long 1.8m wide gravel boxed steps</td>
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<td>C - 42m long 1.8m wide timber boardwalk with kickrails and in situ planting</td>
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<th>Section 2 - Great North Road to Sussex &amp; Kent Terrace</th>
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<td>D - 100m long 3.0m wide concrete path with associated planting and drainage</td>
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<td>E - 620m long 3.0m wide timber boardwalk with handrails fall height &gt; 1m (including 2 bridges to span watercourse)</td>
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<td>F - 125m long 3.0m wide concrete path with interpretive signage</td>
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<th>Section 3 - Sussex Terrace to Riverview Tavern</th>
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<tbody>
<tr>
<td>G - 160m long 3.0m wide concrete path within AT road corridor</td>
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<td>H - 60m long 3.0m wide concrete path with associated planting</td>
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<td>I - 140m long 1.8m grave path with interpretive signage</td>
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<td>J - 14m long 1.8m wide gravel boxed steps</td>
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<tr>
<td>K - 7m long 1.8m wide timber boardwalk with kickrails</td>
</tr>
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</table>

Next Steps

- Further investigations required
- Marine and Terrestrial Ecology
- Topographical Survey
- Geotechnical and Land Contamination Testing
- Archeology
- Biodiversity Assessment
- Cultural Values Assessment
- Hydrology and Flooding Assessment
- Funding considerations
- Design and consent phase
- Developed design
- Assessment of environmental effects
- Resource and building consents
- Landowner approvals and land access agreements
- Construction documentation
- Construction Considerations
- Procurement strategy for physical works
- Construction staging options
- Construction timescales and weather considerations
- Ownership and asset management
1.1 Purpose

The purpose of this document is to analyse the feasibility of developing the Victoria Street Greenways, one of the priority Greenway routes suggested in the Rodney Greenways Plan.

The Rodney Greenways Plan presents a vision of an entire network of greenways connecting town centres, schools, public facilities, recreation areas and public transport hubs with a long-term aim of significantly improving walking, cycling and ecological connections within and between the urban and rural environs of the entire Rodney region.

The purpose of the greenway plans was to provide a thorough exploration of places and destinations which would greatly benefit from non-vehicular connectivity. Although clearly determined routes have been identified in the plans, the details involved in developing and constructing the pathway alignments were not explored in these documents.

The purpose of the feasibility study is to look at potential alignments of the proposed pathway, and the range of potential issues and opportunities that may arise from any such alignments. This study presents a strategy of implementation, indicating the details necessary to deliver a comprehensive greenway path.
1.2 Background | Rodney Greenways Local Path Plans

In 2014 the Rodney Local Board released ‘The Rodney Local Board Plan’ which contained a community driven set of aspirations, goals and outcomes. Based on the vision for wider Auckland, expressed in the Auckland Plan 2012, the Rodney Local Board presented a vision to ‘create the world’s most liveable city at local level’.

Engaging with the Rodney community has been an important part of the process and one of the key foundations to developing the Rodney Greenways Plans. Applying community feedback with professional knowledge resulted in key initiatives being identified to guide and facilitate the delivery of Rodney Local Boards vision. Although many issues were identified during community consultation, a recurring theme was to create a healthy, safe, and well connected environment to live, work and play in. It was identified that the creation of a greenways plan would be a tangible way to achieve many of the goals and outcomes to successfully deliver the aspirational vision for Rodney.

“Auckland’s greenways plans are a series of visionary networks being worked on by local boards. Their long-term aim is to greatly improve, walking, cycling, recreational and ecological connections across the region” (Auckland Council).

The Rodney Local Board Plan 2017 communicates a re-commitment to their aspirations, goals and outcomes set out in 2014. Key initiatives have progressed and been refined to integrate the growth opportunities Rodney has experienced through Auckland’s population expansion.

**Background Rodney Greenways - Local Path Plans**

The Rodney Local Board has adopted these Greenway - Local Path Plans:

- Wellsford
- Kumeu, Huaipai, Waimauku and Riverhead
- Puhinui to Pakiri

The plans are based on engagement with the local communities to identify the aspirations for walking, cycling, and pedestrian connectors in their local areas. Various community engagement sessions with representatives were held during the development of the plans, following initial research and GIS mapping, local board and internal and external agency stakeholder workshops.

The three plans introduce 44 routes that have been identified for the communities in Rodney. Financial constraints and restricted time frames required the Local Board to identify which of these routes would be most desirable and valuable for each community in addition to considering which would be most suitable to develop as a foundation project.

**Greenway Prioritisation**

Given the significant number of priority routes identified, a detailed exercise was undertaken to determine the routes where the budget could provide the greatest benefit.

The process for identifying the four routes to receive funding was worked up with the Rodney Local Board Transport, Infrastructure and Environment Committee on 3 August and 12 October 2017.

During these works a set of criteria for prioritising Rodney Greenways priority routes was tabled for feedback from board members.

These criteria were used to develop a scoring matrix to prioritise the adopted greenways plan priorities for allocating budget towards detailed feasibility. During the development of the scoring matrix the opportunity presented itself to centralise all adopted greenways plan priority route information into one document –Rodney Greenways Priorities Matrix.

The matrix allows for the consideration of a broader set of criteria and embedded into priority route maps.

Of the 44 proposed routes, four priority projects were recommended by Auckland Council staff to receive funding from the $250,000 allocated by the Rodney Local Board to plan for the delivery of the adopted local plan.
1.3 Background | Priority Route 8 Description (Victoria Street Greenway)

The location of the priority greenway project for Riverhead is an unformed legal road, named Victoria Street, linking the Riverhead War Memorial Park to the edge of Rangitopuni Rivers edge on the eastern side of the township.

The alignment of this greenway also includes connecting adjacent sections of unformed roads on George Street, Sussex Terrace, and Kent Street. It was proposed that this would be a shared path that may include a community garden with a gravel walkway.

The proposed Victoria Street greenway is 660 metres in length and is currently overgrown with sections of invasive species which the community are enthusiastic to eradicate. Developing a greenway along this path will improve the connection between Riverhead township to the river’s edge and contribute significantly to improving the ecology of the area.
Priority Greenway Projects

Location
Riverhead, Victoria Street (re-awarded)

Description
Sawed path through Victoria Street and adjacent section of uniformed road; George Street, Soccer, Terrace and Kent Street. Described by the Riverhead Beautification Society as a "natural restoration project with a greenway path system through it.

The Riverhead Beautification Society (RBS) are getting Victoria Street surveyed and carrying out initial weed clearance and maintenance work as the first 10 metre section. Auckland Transport has given landowner approval for a gravel path and establishment of a community garden with a grass walkway.

Ecological and cultural considerations:
There are many invasive species along this corridor which the community are keen to eradicate. Native planting along the length of this list, in addition to any community garden proposed in this area, would benefit the wider ecology.

Constraints
- Draft conditions set out by Auckland Transport under the formal landowner approval, including:
  - Gravel path (not concrete)
  - No structures are permitted other than raised planter boxes up to a maximum height of 1m
  - Planting area and walkways to be maintained by Riverhead Beautification Society.

Opportunities
- Opportunity to enhance the ecological connection from the coast to Riverhead Memorial Park
- There is an active interest for these projects in this community. Riverhead Beautification Society have suggested that planting can be carried out by the community and/or local school.

Budget Requirements (approx. $205k)
- Proposed gravel path connection construction cost approx. 100k, for 600m in length. Estimated costs for 2.5-3m path, professional services and consenting 25%, ecological allowance 20%

Note: The Riverhead Beautification Society have received full support from Rodney Local Board including a $20k grant, which was used to create the connection at Alexandra Street, the 50m of vegetation clearance and the survey.
2.1 Consultation Background

Engagement and Consultation History

The Greenways Plan was developed through a three phase process. The first phase involved the local board discussing and agreeing on the vision for Rodney Greenways, and setting up a working party to monitor and review the plan as it developed.

After a period of desktop analysis, a high-level network of walking and cycling connections were mapped out. These provided an understanding of the broad landscape patterns within the study area and were used to guide phase two.

During this phase, workshops were held with key stakeholders including Mana Whenua, Auckland Transport and other Council staff to inform them of the project, and to understand linker policies or projects that could affect the Greenways Plan.

Phase two involved further analysis that led to the development of draft routes, these were placed onto background maps in preparation for community engagement.

Community engagement involved a two-phase approach. First being a targeted consultation process with key community groups, this involved a draft route assessment workshop to gather feedback on proposed path alignments. Following further analysis by relevant Council departments and Auckland Transport a wider public consultation process began.

The public consultation period was open from 5th - 30th September 2018 on the Shape Auckland website where the public could view the draft routes and submit feedback online. Within the consultation period, a series of workshops and a drop-in session were held around the Riverhead - Kumeu/ Huapai area. This consultation and engagement process not only clarified the social, cultural and environmental purpose of the pathways it also developed a sense of ownership as part of the development process.
2.2 Engagement

Feasibility Study Engagement Plan

Based on our understanding of the wider process of developing, design and implementing a greenway feedback from Council staff, as well as the nature of the Feasibility Study, a formal consultation with the wider community was not undertaken. A recent and in-depth consultation process was run by Auckland Council during the development of the Rodney Greenways Plan (see Consultation Background section) and formal consultation will be required during the (subsequent) design phase of the greenway. Furthermore, given that the Feasibility Study is not providing particular outputs that require formal consultation in a continuation of the engagement process recently completed, wider community re-engagement was deemed neither desirable nor productive.

Therefore the engagement plan involved working with local iwai who were interested, various Auckland Council family internal stakeholders, and key community stakeholder groups and individuals who have particular local knowledge, insights and passions related to the greenway and the site. This engagement was critical to understanding various aspects of the site and the wider social, cultural and political landscape in which the greenway is nested.

Mana Whenua Engagement

Mana Whenua were briefed on the Rodney Greenways Feasibility Study at the NorthWest Mana Whenua Hui held by Auckland Council in Orewa on 4th March 2018. Interested iwai were invited to contact the consultants directly to express their interest in being involved in the project. Ngāti Whātua o Kaipara formally expressed their interest in the Riverhead greenway. A site walkover with Rangi Keene, representing Ngāti Whātua o Kaipara, of the proposed Victoria Street Greenway path was conducted on Monday 7th May. A number of environmental and pedestrian access matters were identified during this visit including:

- Pedestrian safety through thick vegetation on proposed route
- Weed management
- Soil pollution/effects of end tipping from adjacent residential properties
- Sediment control within Ranapōkōma Creek tributary

Ngāti Whātua o Kaipara confirmed early in the engagement process that the application of Te Aranga Design Principles would be appropriate for this project and provided feedback on place-based applications for each principle. During the site walkover the following values and principles were highlighted:

- Koha: connecting the community to nature. For Greenways, awa, meeting places support and connection with community, schools, conservation groups. All collaborating to achieve common objectives.
- Whakapapa: the holistic starting place of any project.
- Taiao: attention to a detailed planning plant assisting the combat of myrtle rust disease.
- Mauri Tu: the mauri of the awa is diminished and needs to be re-balanced – avoidance of any weed spraying beside the Ranapōkōma Creek tributary.

These key points have been applied to the place-based applications of each Te Aranga principle for the Victoria Street greenway.

The site walkover with Ngāti Whātua o Kaipara also inspired other design considerations which were not discussed during the site visit but have been included in the place-based applications based on follow up communications from Ngāti Whātua o Kaipara.

Community Engagement

Community engagement for the feasibility study targeted key stakeholder groups with particular knowledge, passion and vested interest in this pathway, namely the Riverhead Community Association and the Riverhead Beautification Society have been actively involved in the development of the Greenways Plan/routes and have already initiated some vegetation clearance on the Victoria Street route. Continued engagement with these community organisations is of vital importance to access valuable local knowledge and ensure the feasibility study considers local community wants and needs. In addition continued community key stakeholder engagement is vital to foster existing local support for the project.

The primary methods of engagement have been emails, phone calls, attending community meetings as well as site visits discussing the characteristics of the site and how these will affect the decisions around route alignment and construction. Follow up emails and further meetings were been organised as necessary.

Feedback from engagement with key community stakeholders has been invaluable to the development of this study. Detailed knowledge of the site, community interest and efforts to date as well as the wants and aspirations of an active and engaged local community who are actively progressing the development of Victoria Street path was provided by those engaged.

Key Discoveries

- Active and engaged community have clear vision and aspirations for the site and the pathway envisaged for Victoria Street paper road
- Local board has already provided funding to support local community groups to begin work developing path by removing weed species and planting natives
- The proposed greenway has some significant features of local historic and cultural value. The greenway provides an opportunity to preserve, acknowledge and celebrate these features.
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Attachment C

3.0 Landscape Framework
3.1 Landscape Framework Summary

This section covers a range of themes relevant to the site and context. The investigations are organized into themes that address a wide range of socio-cultural and environmental considerations at the scale of the site, neighbourhood and a wider riverhead township context.

A short overview is provided for each theme and considerations for the development of the Victoria Street Greenway site. Where necessary, strategic questions (qualitative questions) are proposed that will need to be considered by decision makers and/or community members before action is taken. Areas that require additional detailed (quantitative) investigations are also outlined. To aid with readability and to highlight next steps, the strategic questions and detailed investigations are presented in ‘call out’ boxes. The section concludes with a summary of the site’s spatial constraints, strategic strengths, weaknesses and opportunities.

The landscape framework organizes the Riverhead Greenway path into sections, each with their own set of unique characteristics, constraints and opportunities. These maps identify the distinctive character of each zone, the location of significant ecological and cultural features and approximate alignment of the path. Key constraints and opportunities are identified for each section, including opportunities for application of Te Aranga Design Principles.
3.2 Regional Context

Riverhead is a rural town on the edge of greater Auckland City, approximately 11 km from the CBD. Located between the emerging metropolitan centre of Westgate (8 km away) and the larger rural town of Helensville (28 km) located on the southern extremity of the Kajaka Harbour.

The historic town is nestled between the upper reaches of the Waiwera municipal boundary, the banks of the Rangitopuni Creek, and the Riverhead forest plantation. The adjacent maps show Riverhead close proximity to the rural service towns of Huapai and Kumeu.

The current population is 1300 people; however, Riverhead has been earmarked for residential expansion in the Auckland Unitary Plan. Riverhead South is currently under development and 80 hectares on the western side of town has been designated as ‘future urban zone’. The townships of Huapai Kumeu and Riverhead are projected to experience a population growth of between 20 - 30,000 people over the next 30 years.

Main access into Riverhead is via SH16 and the Coatesville Riverhead Highway. In addition, a private ferry operates (tidal dependant) between the Auckland CBD and Riverhead. The Auckland’s North Shore is accessible via the Coatesville/Riverhead Highway.
3.3 Riverhead Network, Socio-Cultural + Built Environment

Network Connectivity

The Greenways Plan for Victoria Street presents a series of routes which intersect each other throughout the town. These proposed routes also extend into the land earmarked for future urban growth, providing a long term vision of linkages between the old and new town. The Riverhead Coastal walkway has started construction as a part of the subdivision occurring at Riverhead South. Connector roads are presented as the foundation to route selection for these future greenway paths. Beyond the township boundary of Riverhead, the proposed greenway routes intersect and expand into the rural landscape and connect into the wider path network servicing Hupial Kumeū and Waitakuru communities.

The proposed priority route is an unformed legal road and extends from Riverhead Memorial Park to Rangitopuni Creek edge with eventual ambition of linking into the Riverhead Coastal walkway.

Socio-cultural

For Māori, the tidal nature of the Rangitopuni Creek proved an ideal landing point for passage to the Kaiapapa Harbour via the Kumeū River. After European settlement this portage named Ngongotepa was firmly established as an important junction between the Waitamata Harbour and the developing north western rural farms and industries. By 1875 the Ngongotepa portage evolved into the Kaiapapa Railway, linking Riverhead and Kumeū. This rail link only existed for six years, being made redundant by the North Auckland Line reaching Kumeū in 1881.

A small number of historic and archeological sites are located on the coastal edge of Riverhead one is located within the site and is recognised as the the Ngongotepa portage.

Riverhead War Memorial Park dominates the central landscape of Riverhead and hosts a wide range of local sports clubs and community facilities. Situated close to the town centre and on Riverhead Coatesville Highway it serves as the principle base for football teams, bowling, tennis, and athletic clubs from Kumeū to North Harbour.

Future urban growth will highlight the importance of the parks central location and become the common ground of connection between the two sides of Riverhead.

The neighbouring location of Riverhead town centre and business zone to the park, strengthens the social relationship and amenity value of the park, conversely supporting and vitalising the local business community.

A large part of Riverhead cultural history is founded around the Riverhead Tavern. The tavern has been a popular destination and social hub for many years of life, either local or out of towners since 1857. Located on the banks of the Rangitopuni Creek the tavern has maintained its wharf and is accessible by boat during high tides.

An addition to Riverhead socio-cultural hub is the Hallett Brewery Restaurant and Bar located towards the southern end of Riverhead. A popular destination renowned locally and beyond. Recent subdivision of Riverhead south has transformed the local restaurant and bar from a rural to urban setting.

- one primary school located is on the northern side of Riverhead town centre
- Three early child care centres are located in Riverhead
- Future population growth will provide expansion opportunities to increase services and facilities in Riverhead. However it is not expected for population to reach a level that would support a school larger than a primary school.
- Goodwood Park Trust on rural edge of township, provides community care for traumatic brain injury and mental health services for the wider Auckland community.

Built Environment

The rural setting and historical nature of the town has imposed a built environment which reflects the uncomplicated functions of a small town. A mixture of retail and business services dominate the town centre, whilst the majority of the surrounding streets demonstrate a more residential village atmosphere. Residential built environment is characterised by one or two storey high single dwellings on quarter acre section.

Notable buildings are generally of historical nature and include a section of the Riverhead Tavern, the Riverhead School Hall and the Kauri Gum store.

The established township now consists of a modern subdivision built around old dwellings. The new subdivision at Riverhead South maintains the historic character and reflects the suburban identity through design strategies.

According to Auckland Council planning maps future development of Riverhead is projected to be Future Urban Zone. Current regulations surrounding the future Urban Zone indicate the permitted activities are likely to continue in the present manner. Recent reconsiderations by Auckland Council indicate development of land allocated as Future Urban Zone in Riverhead will be delayed until 2026. This specified 85 hectares remains compliant to its present rural - Mixed Rural Zone regulations until it is rezoned for urban purposes.

Installing a solid greenway framework now will strengthen the connectivity of the existing community and provide opportunities for them to further engage in their environment, establishing a solid and healthy platform in preparation for future population growth.

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Design Considerations

- What other identified greenway routes should be prioritised to build on the Victoria street link and connect the existing socio-cultural centres?

Strategic Questions

- Archeological site to be considered in design - signage/reading area.
- What design elements can be included to make the Riverhead (Victoria Street) Greenway of the Riverhead local area?
- How can the Victoria street greenway be promoted as a key link to connect primary destinations within Riverhead?

Detailed Investigations

- Feasibility studies for routes identified above
- Geotechnical HAIL report

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20 September 2018
3.4 Riverhead Environment, Natural Features + Natural Hazards

Environment

The Ragitopuni Creek inlet is one of the best examples of unspoilt, muddy, mangrove-lined inlets of the upper Waitemata Harbour. The diversity of the flora and fauna here is generally large with extensive beds of shellfish and abundances of birds and fish. These areas are particularly important as pathways for migration by native freshwater fish, and provide habitat for threatened native coastal fringe birds, particularly where subtending terrestrial vegetation which provides roosts and nest sites for birds. Birds which can be found in the area include black shag, kingfisher and white-fronted tern. (cited - Rodney Greenway Plan)

Natural Features

The proposed site for Victoria Street Greenway, is a highly vegetated corridor extending along the edge of an unnamed tributary. Despite the tributary being very narrow it forms a significant riparian corridor, connecting the War Memorial Park to the tidal inlet.

The landscape is formed by a narrow gully gradually sloping down towards the Ragitopuni Creek inlet. The declining topography extends from the northern, southern and western ridges providing a sheltered platform for the proposed route.

Auckland Council GIS indicates a Biodiversity layer TI - Trelawne, over the site. This layer defines the extent of the tree cover of the site and indicates those trees do exceed that of other growth forms but do not form a full forest style canopy.

Selected vegetation/trees from the mid section of the proposed route, have already been removed through active community groups, transforming the extent of the thick tree cover indicated in the maps.

Natural Hazards

The southern side of the Ragitopuni Creek tributary is identified as flood prone throughout the proposed route. An overland flow path extends through the site from the Ragitopuni tributary.

The gully landscape starting at the War Memorial Park edge encounters an immediate 5m drop in contour (21m to 16m). The route follows the gradual slope formed by Ragitopuni Creek tributary, until it reaches a 7m drop located at the intersection of Sussex Street and the proposed route.

Strategic Questions

- How can the development of the Victoria Street Greenway contribute to the enhancement and maintenance of the existing ecological corridor associated with the Ragitopuni Creek tributary?

- How can the development of the Victoria Street Greenway contribute to the enhancement of water quality entering the Ragitopuni Creek?

Design Considerations

- Construction methodologies which are sympathetic to the natural environment?

Take into account:
- Excess water and protect the ecological environment of the tributary. (referred to as an awa by mana whenua)
- The species of trees within tree cover consist of variety of species including creeping vines making access into site difficult.
- Environmental impact involved in removing and clearing of trees/annuau vines to expose pathway.

Detailed Investigations

- Arable - Determine what existing species are valuable and which should be removed.

- Geotechnical
3.5 Victoria Street Greenway | Existing Site + Photo Essay
4.0 Design Overview
4.1 Overview

The design overview outlines path and boardwalk parameters, arranging the Victoria Street Greenway into a sequence of sections, each with their own constraints, opportunities and unique characteristics. The set of maps as outlined in Chapter 5 - Project Staging, identify the existing character of the area and the indicative alignment of the path.
4.2 Proposed Victoria Street Greenway Route

The amended design proposed in this report has been developed from priority route Victoria Street Greenway Path (B) prioritised by the Rodney Local Board various routes identified in the Kumau, Huapai Waiawauku and Riverhead Greenways Plan. As shown on the plan, the entire greenway route has been organised into sections that allow for a staged construction implementation.

The concept designs have similar alignments to the greenway plan routes which are mainly located within the unformed legal roads. The greenway route proposed provides connections to adjacent sections of unformed roads on George Street, Susie Terrace and Kent Street. The proposed Victoria Street greenway is 600 metres in length and is an unnamed tributary of the Rangitopuri Creek, overgrown with sections of invasive species which the community are enthusiastic to eradicate. Developing a greenway along this corridor will improve the connection between Riverhead township to the river’s edge and contribute significantly to improving the ecology of the area.
4.3 Core Design Principles

The following design principles have been formulated from a collaboration of best walking and cycling standards, the Auckland Design Manual, and the Local Path Design Guide (March 2017). Together they are intended to work with the Te Aranga Design Principles by providing more fine-grained direction to the development of Victoria Street greenway.

**Safe**

Safety and a stress-free environment are core tenets of achieving a successful Local Path. Conflict points such as high vehicle numbers and high speeds should be minimised by providing a consistent level of experience across the Paths network. Crime prevention and enhanced social safety are also key outcomes of well-designed Local Paths.

**Accessible & Comfortable**

Paths infrastructure should be accessible for all users, including children and people with disabilities. Considerations include ample width, gentle gradients, smooth transitions in surfaces, and avoidance of high volumes of traffic that create fumes and noise.

**Connected**

Local Paths should connect destinations such as residential neighbourhoods, schools and universities, town centres, transit stations, and bicycle facilities. They should seamlessly connect to the wider transport network including Express Paths. Additionally, these connections should be designed to be easily navigated. Where intuitive design is unachievable, clear and consistent way-finding signage should be employed.

**Enabling**

All local community and stakeholders should be engaged early in the process to incorporate Te Aranga principles and community-driven initiatives. Local Paths should integrate with the existing streetscape and celebrate Auckland’s unique character by responding to and incorporating elements of the surrounding natural and built environment, heritage and culture. Opportunities to include ecological function through planting, water-sensitive design, and low-energy/low-toxicity materials should be integral to each Local Path design.
4.4 Path Parameters

1.5m GRAVEL PATH

3m SHARED PATH
4.5 Surface Strategy

The selection, treatment of surface cover, and application of the materials to the pathway are critical factors in determining the accessibility, safety, comfort and functionality of the walkway. It is also the key factor in determining the durability, life expectancy and maintenance requirements of the path.

**Attachment C**

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4.6 Hard Landscape Strategy + Greenway Structures

The hard landscape elements include all the constructed, built and fabricated objects and structures that help to make up the Victoria Street Greenway. They include bridges and boardwalks, barriers and railings, retaining walls, street crossings, seating, signage and path markings, and lighting if required.

**HARD LANDSCAPE ELEMENTS**

- **FURNITURE**
- **PATH MARKINGS**
- **TIMBER KICK RAIL**
- **WAYFINDING SIGNAGE**

**STRUCTURES**

- **BRIDGES**
- **RETYAINING WALLS**

- **BIKE RACK**

**Attachment C Item 13**
4.7 Soft Landscape Elements

The walk: landscape design principles
- High-visibility landscaping
- Low-form planting
- Native species
- Mixed plantings
- Varied plant species
- Multi-layered planting
- Waterwise planting
- Maintenance-friendly planting

4.7.1 Entry Feature

Entrances to be designed and established in consultation with local community groups to encourage pedestrian use.

4.7.2 Infill/Bush Edge

Long-term low-density planting will provide texture to the walkway, creating a sense of enclosure and enhancing the overall visual appeal.

4.7.3 Path Edge

Native species for path edging, adding texture and color to the walkway.

4.7.4 Parkland Trees

Trees planted to provide shade and enhance the natural environment of the walkway.

4.7.5 Riparian (Freshwater and Coastal)

Native species used to create a natural buffer zone along waterways and coastline.

4.7.6 Edge and Border Planting

Low-maintenance planting along the edge of the walkway, adding a natural touch.

4.7.7 Pinch Points

Strategic plantings at pinch points to enhance the走了' visual appeal.

4.7.8 Walkway Enhancements

Plantings along the walkway to add color and interest, enhancing the overall experience.

4.7.9 Potential for Nativar Trees

Consideration for planting native trees to provide shade and enhance the natural environment of the walkway.

4.7.10 Site Specific Planting

Plantings tailored to the specific conditions of each site along the walkway.
4.8 Arts + Culture

Several opportunities for the integration of arts and culture into the proposed path alignment have been identified by key stakeholders. The following map indicates what and where these opportunities exist.

Mara Whenua representatives have confirmed that Te Aranga Design Principles are a useful and desired framework to use (as a starting point) to identify and explore opportunities for this project. During on-site conversations Mara Whenua have identified multiple opportunities to apply Te Aranga Principles, most explicitly through the principles of Mana Whenua. During the design phase Mara Whenua have indicated their intention to recommend placement of māhī tū elements along the path.

Arts and culture along the proposed route can be expressed and celebrated through a wide range of opportunities including both stand alone cultural and artistic artefacts as well as through existing or new infrastructure developed in association with the design and construction of the path. These include public art, community art, iwi art, wayfinding, interpretative signage, infrastructure, and ecological restoration. Examples of path infrastructure that can integrate arts and culture are seating, climbing frames, boardwalks, jetties, bridge balustrades and lighting. Ecological restoration elements should consider the re-establishment of mahinga kai sites along the path where appropriate.

In parallel with Te Aranga Design Principles the various opportunities for the integration of arts and culture have been identified under the following themes:

• Mahinga kai
• Social & Community Engagement
• Ecological and Cultural Narratives
• Prominent Views

Mara Whenua have expressed interest in the naming the path. “Te Ao Māori is a holistic approach and the starting place is always whakapapa. It is the connection between humans and the natural world, ecosystems, all flora and fauna, we are part of the system, not separate. Everything has whakapapa, our world is built on it. Everything comes from somewhere. It is holistic and integrated and applied to many aspects of life.”
Attachment C

5.0 Project Staging
5.1 Overview

The project staging explores how each section can be implemented as a stand alone path. As well as this, a detailed description of each section is outlined, alongside further opportunities and foreseen constraints. Each section is as follows:

Section 1 - Riverhead War Memorial Park to Great North Road
Section 2 - Great North Road to Sussex & Kent Terrace
Section 3 - Sussex Terrace to Riverhead Tavern
Section 4 - George Street to Victoria Street
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5.2 Victoria Street Greenway | Section 1
(Riverhead War Memorial Park to Great North Road)

Section A consists of a 1.5m wide concrete path that travels along the eastern edge of the Riverhead War Memorial Park and Great North Road. The site conditions between the park and Great North Road is comprised of dense vegetation and sprawling weeds. Over a steep section, forming an intersection into a 1.5m wide road, both sides over the flood prone zone. The three sub-sections are designed together to function as a stand-alone section.

Scope Statement

- Section A: 300m long 1.5m wide concrete path with associated planting and alternative strategies
- Section B: 4.5m long 1.5m wide gravel boarder steps
- Section C: 45m long 1.5m wide timber boarder with local planting and drainage
5.2 Victoria Street Greenway | Section 1
(Riverhead War Memorial Park to Great North Road)

Existing Character

- Dense mixture native and exotic, thick ground cover extending through the flood prone area.
- The landscape on the edge of the park joining Edwards Street is of a level nature.
- Sharply drops 6m into the dense narrow area of mixed vegetation.
- Extending through to Victoria Street, the proposed path crosses an overland flow path and through a flood prone zone.

Constraints

DRAFT AT CONSTRAINTS PROPOSED IN GREENWAYS PLAN TO BE REVISED SUBJECT TO AT APPROVAL

- 1.8m wide grave path to be revised to 1.8m wide concrete path to provide improve accessibility and whole of life costs.
- No structure are permitted up to a maximum height of 1m may need to be revised during design phase.
- Planting areas and walkways to be maintained by Riverhead Beautification Society or agreed asset management arrangements.

ADDITIONAL CONSTRAINTS

- Obtaining Auckland Transport approval for encroachments within unformed roads.
- Steep topography will limit access for ability impaired members of the public or any wheelchair users in Section 1.
- Flood prone areas.
- Exposing tributary and managing water flow.
- Weed management without use of sprays near waterway - Mana Whenua.
- Lighting disruption of natural ecology.

Opportunities

- DRAFT OPPORTUNITIES FOROPOSED IN GREENWAYS PLAN
- Opportunity to enhance the ecological connection from the coast to Riverhead War Memorial Park.
- There is an active interest in this community. Riverhead Beautification Society have suggested that planting can be carried out by the community and/ or local school.

ADDITIONAL OPPORTUNITIES

- To create a clear entrance - use of sculptural artwork.
- Link proposed Victoria street greenway to Edwards Street.
- Link Riverhead War Memorial Park to the local neighbourhood.
- Restore water quality and corresponding ecology of tributary.
- Open pathway and create safe pedestrian environment.
- Introduce pathway lighting.
- Formalising a pathway next to sports club carpark area will improve pedestrian safety.

Consenting Requirements

- AUP ZONING
  - Road Reserve (A3 other Areas)
  - Open Space- Sport and Active Recreation Zone
    (Identified as Aarea A)

- LIMITATIONS
  - Flood prone area, Overland Flow Path and Flood Plain
  - No known Archaeology, contamination or instability issues.

- PLANNING CONSIDERATIONS
  - Open Space- Sport and Active Recreation Zone.
  - Recreational Trails are a permitted activity under H7.9.1

Land Ownership

- Unformed legal road administered by Auckland Transport.

Next Steps

- Investigations and Assessments required
  - Ecological Assessment
  - Topographical Survey
  - Archaological Assessment
  - Hydrology and Flooding Assessment

- Design and Assenting
  - Developed Design
  - Assessment of environmental effects
  - Resource and building consents
5.3 Victoria Street Greenway | Section 2
(Great North Road to Sussex & Kent Terrace)

Section 2 is established within the Auckland Transport urbanised local road corridor, and consists of a vegetated mix of native and exotic flora surrounding an unnamed tributary.

Following approval by Auckland Transport in 2016, weed clearance and maintenance works have been carried out on the first 50m on Victoria Street by the Riverhead Beautification Society.

The primary entrance to the site is from Great North Road with secondary access proposed at the end of Sussex Terrace and George Street, both of which are densely vegetated areas.

Scope Statement

- Section D - 190m long 3.6m wide concrete path with associated planting and drainage
- Section E - 250m long 3.6m wide timber boardwalk with handrails fall height > 1m (including 2 bridges to span watercourse)
- Section F - 125m long 3.6m wide concrete path with interpretive signage
5.3 Victoria Street | Section 2 (Great North Road to Sussex & Kent Terrace)

Existing Character

- Dense mixture native and exotic, thick ground cover extending through the flood prone area.
- The topography gradually slopes from north to south, and from Great North Road to the end of Victoria Street.
- The site is situated within a floodplain zone.

Constraints

DRAFT AT C CONSTRAINTS PROPOSED IN GREENWAYS PLAN TO BE REVISED SUBJECT TO AT APPROVAL
- Gravel path to be revised to 3m wide concepts path to provide improve accessibility and whole of life costs.
- No structure is permitted up to a maximum height of 1m may need to be revised during design phase.
- Planned areas and walkways to be maintained by Riverhead Beautification Society or agreed asset management arrangements.

ADDITIONAL CONSTRAINTS
- Formalised agreement required to construct within the AT informed legal road corridor.
- Significant removal of native vegetation required at the end of Victoria Street, George Street, Sussex Terrace and Kent Terrace to accommodate a 3m wide walkway.
- Clearance and maintenance works needed to be undertaken to enable a safe walking passage.
- The path crosses the floodplain zone, which may in turn be inundate.
- Existing stormwater outlet pipe.
- Existing ground conditions may be contaminated and require assessment.

Opportunities

DRAFT OPPORTUNITIES PROPOSED IN GREENWAYS PLAN
- Opportunity to enhance the connection from the coast to Riverhead War Memorial Park.
- There is an active interest in this community. Riverhead Beautification Society have suggested that planting can be carried out by the community and/or local school.

ADDITIONAL OPPORTUNITIES
- Potential seating/rest area along the path.
- Connect Riverhead War Memorial park to Riverhead Tavern.
- Planting to be carried out by the Riverhead Beautification Society and the community.
- Establishing a new name for the greenway based on local mana whenua heritage.
- Connect Kent Terrace and the wider community to the Victoria Street Greenway.
- Public artwork/sculpture location.

Land Ownership

- Unformed legal road administrated by Auckland Transport.

Consenting Requirements

AUP ZONING
- Road Reserve (All Areas).

LIMITATIONS
- Flood prone area. Overland Flow, Path and Flood Plain.
- No known Archaeology, contamination or instability issues.

PLANNING CONSIDERATIONS
- Road Network Activities including paths are permitted under E26.3.1(A52).
- Road Network Activities within flood hazards is permitted under E36.4.1(A53).
- Anticipated to be a permitted activity unless tree removal and earthworks are greater than the permitted thresholds identified above.

Next Steps

- Investigations and Assessments required
  - Significant Ecological Area - Territorial (SEA-T).
  - Ecological Assessment.
  - Topographical Survey.
  - Archaological Assessment.
  - Hydrology and Flooding Assessment.

Design and consenting
- Developed Design.
- Assessment of environmental effects.
- Resource and building consents.
5.4 Victoria Street Greenway | Section 3 (Sussex Terrace to Riverhead Tavern)

The proposed path connection extends from Victoria Street to Sussex Terrace. This street consists of two-storey residential development overlooking the Ringtopuni Creek inlet.

A 3m wide concrete path is proposed on Sussex Terrace within the Auckland Transport road corridor to ensure pedestrian and cyclists safety. The road classification is considered to have a low traffic volume, according to the NZTA online data.

The Riverhead Tavern is located between Sussex Terrace and Queen Street, creating an opportunity to access the Tavern from Great North Road via a continual link. A privately owned informal open space exists beside the Riverhead Tavern, which consists of native shrub planting and dense vegetation. As indicated, Section H links Sussex Terrace to private land via LOT 1 DP 116217. Land approval will be required to execute this section.

Scope Statement

- Section G - 180m long 3.0m wide concrete path within AT road corridor
- Section H - 60m long 3.0m wide concrete path with associated planting
5.4 Victoria Street Greenway | Section 3 (Sussex Terrace to Riverhead Tavern)

Existing Character

- Auckland Transport road with no existing footpath
- Residential development overlooking dense vegetation
- LOT 1 DP 116247 is a private lot containing dense vegetation and native shrub planting
- Relatively flat topography within the AT road corridor
- Underground services situated within AT road corridor

Constraints

DRAFT CONSTRAINTS PROPOSED IN GREENWAYS PLAN

- Gravel path to be revised to 3m wide concrete path to provide improved accessibility and whole of life costs.
- No structure are permitted up to a maximum height of 1m may need to be revised during design stage.
- Planting areas and walkways to be maintained by Riverhead Beautification Society or agreed asset management arrangements.

ADDITIONAL CONSTRAINTS

- Path would require to be constructed within the AT road parcel as there is insufficient space to accommodate a walkway along the residential properties.
- Desired path alignment is on a slope.
- Cut and fill may be required to achieve appropriate crossfall.
- In order to gain access through LOT 1 DP 116247 a permit for an easement will be required.
- Underground services are identified within the site, and are placed along the proposed path alignment.
- The proposed path would require to cross a private driveway at the end of Arthur Street to achieve a practical connection to the Riverhead Tavern.

Opportunities

DRAFT OPPORTUNITIES PROPOSED IN GREENWAYS PLAN

- Opportunity to enhance the ecological connection from the coast to Riverhead War Memorial Park.
- There is an active interest in this community. Riverheat Beautification Society have suggested that planting can be carried out by the community and/or local school.

ADDITIONAL OPPORTUNITIES

- Create safe pedestrian connection to Riverhead Tavern.
- To construct a 3m wide path within the AT road corridor.
- Connect Sussex Terrace to Riverhead Tavern through an easement on LOT 1 DP 116247.
- Opportunity to implement shrub planting increasing amenity values beside Riverhead Tavern.
- Remove overgrown vegetation opening pathway.
- Use of artwork/design referencing celebrating the culturally historical landmark of Waitangi Portage.
- An approval of an easement through the open space beside Riverhead Tavern will connect Riverhead War Memorial Park to Riverhead Tavern.

Consenting Requirements

AUP ZONING

- Lot 1 DP 116247. Residential Single House Zone (Area H)

LIMITATIONS

- Flood Plain and Overland Flow Path.
- No known Archaeology, contamination or instability issues.

PLANNING CONSIDERATIONS

- Road Reserve
- Road Network Activities including paths are permitted under E26.3.2(a)(A7).

Assumed Earthworks of less than 2500m³ are proposed (otherwise Restricted Discretionary Consent is required under E26.3.2(A106)).

- Tree removal would involve trees less than 4m in height and/or less than 400m in girth (otherwise Restricted Discretionary Consent is required under E26.4.3(A92)).

- Road Network Activities within flood hazards is permitted under E36.4(A53).
- Lot 1 DP 116247. Residential Single House Zone
- Rule E27.4.1(A10) “off-road pedestrian and cycling facilities” (Chapter E27 Transport) is provided for in all zones subject to compliance with relevant standards.

- Assumed Earthworks of less than 250m² or 250m³ are proposed (otherwise Restricted Discretionary Consent is required under E1.2.4.1(A4) & (A8)).

- No limitations on tree removal and anticipated that any built coverage generated by the path will easily comply with underlaying residential zoning development standards under H3.6 Standards of AUP(DP).

Planning Conclusions

- Anticipated to be a permitted activity in both zones.
- No tree removal and anticipated that any built coverage generated by the path will easily comply with underlaying residential zoning development standards under H3.6 Standards of AUP(DP).

Land Ownership

- Private land, site parcel LOT 1 DP 116247
- Private land, corner Arthur Street

Next Steps

- Investigations and Assessments required
  - Topographical Survey
- Design and consenting
  - Developed design
  - Assessment of environmental effects
  - Resource and building consents
  - Landowner approvals and land access/assetments
Section 4 consists of improving walking connections from Victoria Street to the wider suburb. Due to the steep terrain and constraints identified on site, this section consists of three sub-sections with different surface strategies. Section I is associated with a 1.8m wide gravel path from George Street to Victoria Street, which transitions to stairs along the steep slopes. A 1.8m wide boardwalk is proposed over the floodplain for a safe connection to Section 2.

**Scope Statement**

- **Section I** - 142m long 1.8m gravel path with interpretive signage
- **Section J** - 14m long 1.8m wide timber boxed steps
- **Section K** - 7m long 1.8m wide timber boardwalk with kickrails
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Attachment C
5.5 Victoria Street Greenway | Section 4 (George Street to Victoria Street)

Existing Character

- Dense mixture native and exotic, thick ground cover extending through the flood prone area
- Includes the steepest section of the tributary gully
- The northern and southern sections of the proposed path level out in topography to a gentle 1:8 gradient

Constraints

DRAFT CONSTRAINTS PROPOSED IN GREENWAYS PLAN
- Gravel path to be constructed according to Auckland Transport
- No structures are permitted up to a maximum height of 1m
- Planted areas and walkways to be maintained by Riverhead Beautification Society

ADDITIONAL CONSTRAINTS
- Dense vegetation - significant removal of native species along Victoria Street and at the convergence of George Street, Susan Terrace and East Street to create a safe passage
- High safety risks due to a fall height greater than 1m over steep terrain

Opportunities

DRAFT OPPORTUNITIES PROPOSED IN GREENWAYS PLAN
- Opportunity to enhance the ecological connection from the coast to Riverhead War Memorial Park
- There is an active interest in this community. Riverhead Beautification Society have suggested that planting can be carried out by the community and/or local schools

ADDITIONAL OPPORTUNITIES
- Connection of Alexander Street and George Streets strengthens the overall pedestrian relationship between the established neighbourhood and newly developed subdivision
- Provides an alternative route into the older part of Riverhead and to the Tavern

Consenting Requirements

AUP ZONING
- Road Reserve (All Areas)

LIMITATIONS
- Flood Plain and Overland Flow Path
- No known Archaeology, contamination or instability issues.

PLANNING CONSIDERATIONS
- Road Reserve
- Road Network Activities including paths are permitted under E36.3.3(A57)
- Assumed Earthworks of less than 2500m² are required otherwise Restricted Discretionary Consent is required under E36.5.3(A186)
- Tree removal will involve trees less than 4m in height and/or less than 400mm in girth (otherwise Restricted Discretionary Consent is required under E36.4.3.1(A102))

Next Steps

Investigations and Assessments required
- Significant Ecological Area – Terrestrial (SEA-T) - Ecological Assessment
- Topographical Survey
- Archaeological Assessment
- Flooding Assessment

Design and consenting
- Developed design
- Assessment of environmental effects
- Resource and building consents
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Executive Summary

Overview

This report presents the feasibility assessment for the Centennial Park Greenways which is identified as priority route G2 on the Wellsford Greenways Plan. Wellsford is the northernmost town in the Auckland Region located at the intersection of State Highway 1 and State Highway 16.

The report outlines a variety of proposed routes for shared paths located around Wellsford Centennial Park and through to the town centre. Four path sections have been proposed and two of these have been designed to be built as standalone sections.

The path widths vary between 2.2-3m and are either constructed from concrete or gravel, or of timber boardwalks. The proposed paths are located on land owned by Auckland Council, Auckland Transport and private property that will require access permission from the owners.

This feasibility report continues on from the Greenways Plan and is one of a number of steps within the project framework. The entire greenway route has been organised into a series of sections that allow for staged construction implementation. Implementation of the routes provided is subject to further work including detailed investigations and design, landowner permission, resource consents, funding availability, etc.

Engagement

Engaging with the Rodney community and Nana Whenua has been an important part of the process and one of the key foundations to developing the Rodney Greenways Plan. The continuation of the engagement process alongside professional knowledge has been an important contribution to the shared path proposals presented in this feasibility study.

Proposed Scope:

Section 1 - Centennial Park south circuit
1A - 1.3km long 2.5m wide concrete path with associated riparian planting
1B - 280m long 2.1m wide gravel trail
1C - 8m long 2.5m wide timber bridge over stream

Section 2 - Centennial Park north circuit
2A - 660m long 3.0m wide concrete path with associated riparian planting
2B - 18m long 2.2m concrete footpath

Section 3 - Rodney Street to Centennial Park
3A - 425m long 2.2m wide concrete path with associated planting (subject to future zoning and access permission from landowners)
3B - 25m long 2.5m wide timber boardwalk (with lookout)
3C - 45m long 2.5m wide timber bridge over railway

Section 4 - Centennial Park Road path
4A - 620m long 2.2m wide concrete path through private property with associated planting (subject to future zoning and access permission from landowners)
4B - 50m long 2.2-3m concrete path with associated planting

Design Principles & Strategy Alignment

The feasibility study aligns with the Wellsford Greenways Plan and the Rodney Local Board Plan 2017. The design principles have been formulated from a collaboration of best practice walking and cycling standards, the Auckland Design Manual and the Local Path Design Guide (March 2017).

The design framework is based on the following principles: the paths must be safe, connected, accessible, comfortable and enabling. These principles are intended to work with the Te Aranga Design Principles to provide a more fine-grained direction to the development of the Centennial Park Greenways.

Key Findings

- The Centennial Park Greenways proposed routes are feasible subject to further work including detailed investigations and design, landowner permission, resource consents, funding availability, etc.
- The Centennial Park Greenways have been divided into four sections to allow for construction flexibility.
- Section 1: Centennial Park south circuit is a priority route for the community of Wellsford creating an amenity around Centennial Park, the tennis courts and the steep bush adjacent to this area.
- Section 2: A circuit around the northern park provides an extended pathway network to complement the proposed section 1 path around the playing fields. Centennial Park north circuit is essential to implement if Sections 3 or 4 are to be built.
- Section 3: Rodney Street to Centennial Park forms a direct route from the town centre through to Centennial Park. However, this route involves crossing the railway line and private property. Construction will require a restricted discretionary resource consent for the boardwalks positioned within the floodplain. It is recommended that Kiwi Rail is engaged at an early stage. This route is only feasible if land owner access permission and easements can be obtained from the owners of Lot 3 DP 183334 and Pt Sec 3A SD 17520.
- Section 4: Centennial Park Road path provides another direct route from the centre of town through to Centennial Park, passing through the land adjacent to the road corridor. This area is a Future Urban zone and this path anticipates comprehensive future urban development.
- Opportunities to improve ecological function through planting, water sensitive design and low-energy low toxicity materials should be integrated into path design.

Next Steps

The next steps after the feasibility study phase include detailed site investigations, design, landowner approval and any regulatory and/or consenting requirements to be met before physical works can commence.

- Further investigations required
  - Institute engagement with Kiwi Rail regarding rail crossing with proposed bridge for Section 3
  - Topographical Survey
  - Geotechnical and land contamination testing
  - Aricultural Assessment
  - Cultural Values Assessment
  - Hydrology and Flooding Assessment
  - Funding considerations

- Design and consent phase
  - Developed design
  - Assessment of environmental effects
  - Resource and building consents
  - Landowner approvals and land access / easements
  - Kiwi Rail permits / easements
  - Construction documentation

- Construction Considerations
  - Procurement strategy for physical works
  - Construction staging options
  - Construction timeframe and seasonal complications
  - Ownership and asset management
1.1 Purpose

The purpose of this document is to analyse the feasibility of developing the Centennial Park Greenway, one of the priority Greenway routes suggested in the Rodney Greenways Plan.

The Rodney Greenways Plan presents a vision of an entire network of greenways connecting town centres, schools, public facilities, recreation areas and public transport hubs with a long-term aim of significantly improving walking, cycling and ecological connections within and between the urban and rural environs of the entire Rodney region.

The purpose of the greenway plans was to provide a thorough exploration of places and destinations which would greatly benefit from non-vehicular connectivity. Although clearly determined routes have been identified in the plans, the details involved in developing and constructing the pathway alignments were not explored in these documents.

The purpose of the feasibility study is to look at potential alignments of the proposed pathway, and the range of potential issues and opportunities that may arise from any such alignments. This study presents a strategy of implementation, indicating the details necessary to deliver a comprehensive greenway path.
1.2 Background | Rodney Greenways Local Path Plans

In 2014 the Rodney Local Board released ‘The Rodney Local Board Plan’ which contained a community driven set of aspirations, goals and outcomes. Based on the vision for a world’s most liveable city at local level, the Rodney Local Board presented a vision to ‘create the world’s most liveable city at local level’.

Engaging with the Rodney community has been an important process and one of the key foundations to developing the Plan. Applying community feedback with professional knowledge resulted in key initiatives being identified to guide and facilitate the delivery of Rodneys Local Board’s vision. Although many issues were identified during community consultation, a recurring theme was to create a healthy, safe and well-connected environment to live, work and play in. It was identified that the creation of a greenways plan would be a tangible way to achieve many of the goals and outcomes to successfully deliver the aspirational vision for Rodney.

“Auckland’s greenways plans are a series of visionary networks being worked on by local boards. Their long-term aim is to greatly improve walking, cycling, recreational and ecological connections across the region.” (Auckland Council)

The Rodney Local Board Plan 2017 communicates a recommitment to their aspirations, goals and outcomes set out in 2014. Key initiatives have progressed and been refined to integrate the growth opportunities Rodneys has experienced through Auckland’s population expansion.

Background Rodney Greenways - Local Path Plans

The Rodney Local Board has adopted three Greenway - Local Path Plans:
- Wellesford
- Kumeu, Huapai, Waiwaiuku and Riverhead
- Puhoi to Pakiri

The plans are based on engagement with the local communities to identify the aspirations for walking, cycling and other connections in their local areas. Various engagement sessions with representatives were held during the development of the plans, following initial research and GIS mapping, local board and internal and external agency stakeholder workshops.

The three plans introduce 44 routes that have been identified for the communities in Rodneys. Financial constraints and restricted time frames required the Local board to identify which of these routes would be most desirable and viable for each community. In addition to considering which would be most suitable to develop as a foundation project.

Greenway Prioritisation

Given the significant number of priority routes identified, a detailed exercise was undertaken to determine the routes where the budget could provide the greatest benefit.

The process for identifying the four routes to receive funding was worked in with the Rodney Local Board Transport, Infrastructure and Environment Committee on 3 August and 12 October 2017.

During these workshops, feedback from board members and discussions with Auckland Transport and Rodney Local Board about prioritisation was received.

These criteria were used to develop a scoring matrix to prioritise the adopted greenways plan priorities for budget towards detailed feasibility. During the development of the scoring matrix, the opportunity presented itself to cross-link the adopted greenways plan priority route information in to one document – Rodney Greenways Priorities Matrix.

The matrix allows for the consideration of a broader set of criteria and embedded links to priority route maps. Of the 44 proposed routes, four priority projects were recommended by Auckland Council staff to receive funding from the $250,000 allocated by the Rodney Local Board to plan for the delivery of the adopted local plan.
1.3 Background | Priority Route G2 Description (Centennial Park Road and Centennial Park)

Five priority routes have been identified from the Wellsford Greenways network. To determine which greenway projects should be developed further first, a set of criteria was established and feedback was received from the Rodney Local Board members via the Rodney Greenways Priority Matrix. This ensured that the proposed greenways could be prioritized allowing for a budget to be allocated towards producing a detailed feasibility report.

Priority route G2 - Wellsford Centennial Park Road and Wellsford Centennial Park, has been selected as the first path network to be developed into a detailed feasibility report. The Centennial Park Greenways were chosen due to the high community support in the area, as well as performing well against Auckland Council's strategic direction. The majority of the land earmarked for construction is owned by Auckland Council and/or Auckland Transport.

With strong community support for the development of greenways in the Wellsford area, there is a need to provide routes which connect key green spaces with important community areas such as the town centre and the rugby fields located at Centennial Park. The provision of a recreational path around Centennial Park was also highlighted as a key priority.

This priority project connects into other proposed routes and connects into the wider greenway networks proposed for Rodney.
Rodney Local Board Parks and Recreation Committee
20 September 2018

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2.1 Consultation Background

Engagement and Consultation History

The Rodney Greenways Plan was developed through a three-stage process. Phase one included stocktaking existing strategies and plans as well as key stakeholder workshops to establish a vision and greenways definition. A working party was then launched to monitor and review the plan as it developed.

Adopting the greenways definition, a desktop study was completed to create a high-level network of walking and cycling connections. Ecological improvements were also considered to improve links between existing forested wetlands, coastal edges and streams. These provided an understanding of the broad landscape patterns within the study area and were used to guide phase two.

Phase two began after the desktop mapping, and included analysis of opportunities for ecological enhancement and greater connectivity to public open space. The draft routes were overlaid with other background data to ensure that the network makes appropriate connections to key destinations.

Phase two involved on-site investigations and GIS data mapping prior to desktop evaluation of various routes to eliminate inappropriate connections and the network plan was updated accordingly.

Phase three focused on further refining the network prioritising and wider consultation. The Rodney Local Board and council staff from Auckland Transport and Parks, Sports and Recreation, and NZTA reviewed the proposed greenways network in detail. A public consultation period ran for two weeks from 14 May 2015 at the Old Waiwera Library. Workshops and drop in sessions were also held at various locations within the region. This feedback was incorporated into final network plans.

In order to progress the development of the Rodney Greenways network, the local board has identified six priority sections based on community desirability, benefits, constraints and opportunities. The Waiwera Centennial Park path is one of these priority sections.
2.2 Engagement

Wellsford Greenways Feasibility Study Engagement Plan

Based on our understanding of the wider process of developing design and implementing a greenway, feedback from Council staff, as well as the nature of the Feasibility Study a formal consultation with the wider community was not undertaken. A recent and in-depth consultation process was run by Auckland Council during the development of the Rodney Greenways Plan (see Consultation Background section) and formal consultation will be required during the (subsequent) design phase of the greenway. Furthermore, the feasibility study is not providing particular outputs that require formal consultation and an unstructured engagement process recently completed. Community re-engagement was deemed neither desirable nor productive, and in fact was identified by Council staff as a risk to the project by contributing to consultation fatigue.

Therefore the engagement plan involved working with local iwi with an interest in the project, various Auckland Council family internal stakeholders and key community stakeholder groups and individuals who have particular local knowledge, insights and passion related to the greenway and the site. This engagement was critical to understanding various aspects of the site and the wider social, cultural and political landscape in which the greenway is nested.

Mana Whenua Engagement

Mana Whenua were briefed on the Rodney Greenways Feasibility Study at the NorthWest Mana Whenua Hui run by Auckland Council in Orewa on April 4 2018. Interested we were invited to contact the consultants directly to express their interest in being involved in the project. Ngati Wai and Ngati Maniapouri formally expressed their interest in the Wellsford Centennial Park greenway path. A site walkover with Sandra Hawkes, representing Ngati Wai, and Fiona McKernie representing Ngati Maniapouri of the proposed Wellsford Centennial Park path was conducted on Monday 30 April. A number of environmental and community amenity matters were identified during the visit including:

- Water quality
- Environmental restoration
- Community and environmental safety administered to pathway
- Provision of quality facilities for community

Ngati Wai & Ngati Maniapouri confirmed early in the engagement process that the application of Te Aranga Design Principles would be appropriate starting framework for this project and provided feedback on place-based applications for each principle.

In particular, and in relation to the principle of Whakapapa, it was communicated by iwi by giving a name to the greenway project by Mana Whenua is better sooner rather than later, so that name can be established and accepted by Local Board and public before bulk of consultation and planning is done.

Community Engagement

Community engagement for the feasibility study targeted key stakeholder groups with particular knowledge, passion and vested interest in this pathway. This included members of the sports clubs, and local residents.

Particular local residents have been actively involved in the development of the Greenways Panoroutes and have spent years advocating for better connectivity between the town centre and Centennial Park. Continued engagement with these residents and other active community members is of vital importance to access valuable local knowledge and ensure the feasibility study considers local community wants and needs. In addition, continued engagement with key stakeholders and community advocates is vital to foster existing local support for the project. It is important to supply the active community with relevant information that is transparent and in a timely manner, regarding the development of the greenway.

Key Discoveries

- There is a strong desire amongst members of the community to have a more direct connection between the town centre and Centennial Park.
- Currently, there are limited opportunities in and around Wellsford for recreational walking in open spaces.
- Through residential development and a town centre park and ride initiative there will be increased need for safe and easy access to public open space directly from the town centre.
- One of the key community drivers for the path is to provide active recreation opportunities for the local community as well as connectivity.

The primary methods of engagement have been emails, phone calls, attending community meetings as well as site visits discussing the characteristics of the site and how these will affect the decisions around route alignment and construction. Follow up emails and further meetings were organised as necessary.

Feedback from engagement with key community stakeholders has been invaluable to the development of this study. Detailed knowledge of the Centennial Park greenway was provided to the active community who were engaged, following the requirements and aspirations outlined in the initial consultation.
3.0 Landscape Framework
3.1 Landscape Framework Summary

This section covers a range of topics relevant to the site and context. Investigations are organized into sections that address a wide range of socio-cultural and environmental considerations at the scale of Welsford and the wider surrounding context.

Separated into key headings, an overview of each specific topic is explored. Strategic questions that need to be considered by the design team and/or community members before action have also been proposed, as well as areas that require additional detailed investigations.
3.2 Regional Context

Located 77 km northeast of Auckland CBD, Waiheke Island is the first island east of the Auckland CBD, located at the junction of State Highway 1 and State Highway 60. An inland town surrounded by farmland and horticultural land, it functions as a commuter area for Auckland. It is national scenic reserve, an off point for sailors. The Northern Rail Line runs through Waiheke but is only used for freight transport.

To the south and east of Waiheke are the Hauraki Gulf and Omaha Forests, respectively. Both are located within an extensive mountain range stretching diagonally through the region. The Hauraki Gulf is considered an area of national importance, with the surf beaches of Pauanui, Mangawhai Heads, Long Beach and Mahurangi, while the expansive Janara Harbour is suited to the west.
### 3.3 Centennial Park Greenway Network, Socio-Cultural + Built Environment

#### Network Connectivity

The proposed routes for the Centennial Park Greenways create a series of shared paths that connect Centennial Park with the town centre or provide a loop around this amenity. These proposed routes also extend into the land earmarked for future urban growth, providing a long-term vision of creating connections between the original town and the new subdivisions.

Multiple regional parks and the associated walkways are located around Welsford which include, Atiu Creek Regional Park, Te Arai Regional Park, Pakiri Regional Park and Logues Bush Scenic Reserve. There is also the potential to connect these greenways with existing bush walking tracks which are closer to the town such as Curry’s Bush.

#### Socio-cultural

Welsford was founded by an immigrant group who arrived as the last organised British Settlement in New Zealand. Known as the Auberlanders, they planned a town on the banks of the Whakapirau Stream; however, the building of the railway in 1909 resulted in business activity gradually moving from the location of Old Welsford, to the new and present location of the town. Welsford’s name is an acronym based on the surnames of the founding families in the area, Watson, Edger, Lester, Levet, Simpson, Foster, Oldfield, Farmbottom and Dilhite.

A rural service town for Taumarunui, Whangarei Port, Albert, Te Hanua, Tamastra, Te Arai, Whangaparaoa and Pakiri. Welsford provides schools, shopping, farm supplies, doctors and stockyards.

Sport is an essential component of daily life in Welsford. Rugby, football, netball, cricket, tennis and athletics are the most popular sports in the area, alongside Welsford Golf Club which also houses squash courts. Recreational amenities such as roller-skating, archery and bowling (indoors and outdoors) are also available. On a Saturday during the rugby season the Tamastra or Welsford fields often have a country cub game on.

- One primary school is located on School Road, to the north of the town centre.
- One secondary school is located on State Highway 1, also to the north of the town centre.
- There are two early child care centres situated towards the southern end of State Highway 1.
- Te Hanua is a tiny settlement 10 minutes to the north of Welsford and is home to an award-winning replica of a 17th century Māori Village; Te Hana Te Ata Mahana Māori Cultural Centre.
- The Albertland and Districts Museum and the Welsford War Memorial Library are located within Memorial Park, on the left if entering via State Highway 1 from Warkworth.
- Dominating the eastern landscape of Welsford, Centennial Park has a playground for children and extensive sports grounds and is an ideal area for a picnic lunch spot.

#### Built Environment

The rural setting of the town and the implementation of State Highway 1 has influenced the layout of the town. Without a traditional town centre, the built environment has instead grown along the highway with limited development perpendicular to this main road. A mixture of retail and business services dominate the middle of the town, whilst the majority of the surrounding streets demonstrate a more residential atmosphere. Residential built environment is characterised by one or two story high single dwellings on the typical New Zealand quarter acre section.

With an ever-expanding Auckland, the residential urban belt continues to be pushed northward. Welsford has been identified as the next step in the expansion path after Whangarei, Northern motorway expansion will more effectively connect Welsford to Auckland, as the region’s northernmost satellite town.

A growth in population can be sustained by the existing real estate infrastructure. Supplementing this is the provision for lifestyle blocks and residential subdivision in a 27Ha block of mixed use land which also has areas zoned for retail business and light industrial. Rodney Local Board has also identified Welsford as a town that has the potential for the development of multi-sport facilities.

Developing a solid greenways framework will strengthen the connectivity of the existing community, while providing opportunities for growth which ensure that the movement of people is prioritized. Implementing initiatives such as greenways will allow for the new residential and retail business areas to be connected seamlessly into the existing town. This is especially vital as sport is a key component of the daily life in Welsford and the implementation of greenways will ensure that key areas are connected.
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### 3.4 Wellsford Environment + Natural Hazards

<table>
<thead>
<tr>
<th>Environment</th>
<th>Natural Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Situated inland. Wellsford is primarily surrounded by pastoral vegetation however an extensive area of native and exotic vegetation is also found in the town’s surroundings. Due to the sun fast setting there are limited extents of impervious surfaces.</td>
<td><strong>FLOODING</strong>&lt;br&gt;Centennial Park and spaces adjacent to Centennial Park Road are located within a floodplain and limited areas within this row are classified as flood prone.</td>
</tr>
<tr>
<td>While Wellsford is relatively flat, the land slopes up towards the south forming the Dome Valley and to the north east the Topuni River is located. This river leads into the Harpescues Basin before moving through into the Kaipara Harbour and the diverse range of estuaries and inlets.</td>
<td></td>
</tr>
</tbody>
</table>
3.5 Centennial Park Greenway | Existing Site

The existing sites of the proposed Centennial Park Greenways have a strong rural atmosphere with wide, expansive fields and gravel roads. Pastoral vegetation is present along the edges of these roads and spaces. Swales separate Centennial Park and the road while shelterbelts are provided by trees to reduce the impact of wind on the spaces. An open drainage ditch is located on the western side of Centennial Park, with an unpaved dirt road separating this ditch from the sports fields.

A fence divides the sports fields from the surrounding land with timber access gates separating the unpaved dirt roads from Centennial Park Road. Sports clubrooms are also located on the edge of the rugby fields.

There is an existing timber bridge providing access to and from Centennial Park Road to Centennial Park. This is a limited footpath network found around the site.
4.1 Overview

The design overview outlines path and boardwalk parameters arranging the Centennial Park Greenways into a sequence of sections, each with their own constraints, opportunities and unique characteristics. The set of maps as outlined in Chapter 5 - Project Staging, identify the existing character and the indicative alignment of the path.
4.2 Centennial Park Greenway | Proposed Route Options

The amended design proposed in this report has been developed from priority route C2 - Wellsford Centennial Park Road and Wellsford Centennial Park, which is outlined in the Wellsford Greenways Plan. This original plan was taken into consideration during the design phase; however, the path proposed within the road corridor along Centennial Park Road lacked sufficient width to form a safe walking/cycling path. To resolve this issue, Section 4 - Centennial Park south circuit has been rerouted through the private properties, however, this alignment is subject to land access permission from landowners.

This feasibility study identified the need to include G3 which is indicated as Section 3 - Rodney Street to Centennial Park into the scope. This ensures the town centre is connected through to Centennial Park, a crucial link which the community has expressed a strong interest in. In order to build Section 3 - Rodney Street to Centennial Park, Section 2 - Centennial Park north circuit would require to be built first to complete the path connection.

Section 1 - Centennial Park south circuit has been deemed as a priority route by the Wellsford community which would serve multiple user groups. Section 1 is designed as a walking/running circuit through Centennial Park, following extensive consultation with the iwi and the local community.

Through public consultation, it was recognized that there is a need for specific sections to be developed first and with the exception of Section 3 - Rodney Street to Centennial Park, each section can be built as separate segments.
4.3 Core Design Principles

The following design principles have been formulated from principles adopted within the Local Path Design Guide (March 2017):

**Safe**
Safety and a stress-free environment are core tenets of achieving a successful local path. Conflict points such as high vehicle numbers and high speeds should be minimised by providing a consistent level of experience across the path network. Crime prevention and enhanced social safety are also key outcomes of well-designed local paths.

**Accessible & Comfortable**
Paths infrastructure should be accessible for all users, including children and people with disabilities. Considerations include ample width, gentle gradients, smooth transition in surfaces, and avoidance of high volumes of traffic that create fumes and noise.

**Connected**
Local paths should connect destinations such as residential neighbourhoods, schools and universities, town centres, transit stations and bicycle facilities. They should seamlessly connect to the wider transport network including express paths. Additionally, these connections should be designed to be easily navigated. Where intuitive design is unachievable, clear and consistent wayfinding signage should be employed.

**Enabling**
Livi, local community and stakeholders should be engaged early in the process to incorporate Te Arama principles and community driven initiatives. Local paths should integrate with the existing streetscape and celebrate Auckland’s unique character by responding to and incorporating elements of the surrounding natural and built environment, heritage and culture. Opportunities to include ecological function through planting, water sensitive design, and low energy/low toxicity materials should be integral to each Local path design.
4.4 Path Parameters

Design Strategy

What is a Shared Path?
A Shared Path is a wide unimpeded path for walking and cycling. They are designed to be safe for all users and are typically 3m wide.

Proposed Standard
Given the expected users, the recommended classification for walkers is Path - Urban Residential as defined in the NZ Handbook for Tracks and Outdoor Structures (SNZ HB 8630:2004) and the appropriate grade for cyclists is Grade 1 as defined by the Cycle Trail Design Guide prepared by the Ministry of Tourism.

Spatial Requirements
Design user envelopes proposed for a shared path are:
- Pedestrians: 1300 mm
- Cyclist: 1900 mm
- 500 mm user separation
The desired width of a shared path is 3 metres. The desired width for a connecting path is 2 metres.

Path Offsets
Minimum Width
- Shared path zone - 2500mm at pinch points.
- Consider lane separator markings in these areas.
- Minimum Offset
- The path alignment should allow for a minimum 500mm clearance from all existing site features (existing trees, furniture, vegetation etc).
- All landscape elements (furniture, retaining, vegetation, barriers etc) along path edge must be offset a minimum of 500mm from shared path zone.

Long Fall
1333 (3%) is considered the maximum desirable gradient along the length of the path. Gradients of 120 (5%) or greater are acceptable over short distances and are preferable where strict adherence to maximum desirable grade would result in deviation from straight or desired route and would result in additional earthworks.

Cross Fall
The cross fall of paths should be as flat as practical while ensuring rainwater drains off the surface:
- The preferred cross fall is 150 (2%).
- The maximum is cross fall is 1.8 (12.5%).

Impermeable Surfaces
- Concrete: 130 - 125 (2% - 4%) are adequate for drainage. 1.50 (12%) shallowest to allow drainage.
- Timber: The profile and gaps between decking boards will allow the surface to drain.

Pervious Surfaces
- 1.23 (5%) is the shallowest cross fall to allow for drainage and is the optimum cross fall to maintain slip resistance and reduce the risk of material migration.

Super-elevation at Corners
Super-elevation should not exceed 3% on paths that are to be shared with accessible routes for wheelchairs and mobility scooters. This may require increasing curve radius.

Structures
Timber boardwalk with 3m deck width. Preference to be level. Rammed section to be gradients of 120 (5%) up to a maximum gradient of 112 (8%) with landing platforms.
4.5 Surface Strategy

The surface treatment of the path assists in determining the accessibility, safety, comfort and experience of the Wellibrook Greenways. It is also the key factor dictating the durability, life expectancy and maintenance requirements of the path.

**RECOMMENDED MATERIALS**

**TIMBER BRIDGE**

Custom designed bridge/Tunnel overpass/underpass (steel or timber) designed to be consistent with lower soil requirements for creating a self-supporting floor design and reduced TBIs.

**BOUND GRAVEL PATH**

Compact gravel path to be used in components of Sections 1 and 2. Excellent forecourt cover due to its ability to be self-binding/setting, aggregate enabled or compacted to form a stable sub-grade. Gravel can be delivered on a compacted base and sited to suit the design and aesthetic requirements. Changes in level requiring steps should be created using timber floor steps.

**BRUSHED CONC. FINISH**

Lime concrete pavement 10mm base/10mm chippin, with soft, grey (1% Chrome) matrix; lightly exposed aggregate or brushed finish. To be installed over a compacted base and pavement. Provide edge strengthening to all pavement edges. Allow for saw cut and construction joints as required by engineers. For cycle path purposes use only saw cut joints as a minimum width specified by the engineer. If areas covered or formed or path are extended, sealing of the joint may be necessary to provide a smooth finish free from long term consequences. Using a larger variety of floor finishes applicable.

Concrete is not a perfect material to match existing feature e.g. a Existing floor finishes. Engineer to provide concrete strength and reinforcing detail. Allow for sidewalk allowances where applicable. For repairs - whole panels should be replaced (from expansion joint to expansion joint).
4.6 Hard Landscape Strategy + Greenway Structures

The hard landscape elements include all the constructed, built and fabricated objects and structures that help to make up the Veerstford Greenways. They include bridges and boardwalks, barriers and balustrades, retaining walls, street crossings, seating, signage and path markings, and lighting if required.

HARD LANDSCAPE ELEMENTS

TIMBER KICK RAIL

A 75mm x 45mm x 10mm with timber kick rail to be nicked out, edge cut at a 45 degree, preventing a railhead less than 500mm high. Timber posts, screw or bolt fastenings. To be counter sunk and secured to suit timber dimensions and radii. Large fixing holes to be filled with black timber inset.

WAYFINDING SIGNAGE

Structures

BRIDGES OR TUNNEL

Custom designed Bridge/Tunnel to span over under Rail Line. Bridge or funnel designed to be compliant with Rail Rail requirements for crossing a rail corridor. Exact design and material TBC.
4.7 Soft Landscape Elements

The planting is organised into three categories - Mitigation Planting, Long Term Enhancement Planting and Entry Feature Planting. The Mitigation Planting is the planting that will be completed following construction of the path in order to mitigate any adverse environmental impacts, with a key focus on enhancing ecological integrity. The Long Term Enhancement Planting can be planted at any time after the path is completed as part of ongoing improvement of the path and the open space it traverses through. The long term planting can be delivered through various means including but not limited to contractor implementation during path construction, local improvement projects and community / volunteer groups. The Long Term Enhancement Planting places priority on amenity and functionality, as well as ecological benefit.

All planting is designed to maintain and enhance the existing biodiversity of the site and to create habitat for native wildlife (invertebrates, reptiles, birds).

**ENTRY/EXIT FEATURE**

Entry plantings to be designed and included in consultation with local interest groups to provide a unique character and ownership qualities of the pathway.

**VEGETATED BARRIERS**

Vegetated barriers are employed in place of a physical hard/soft barrier where the risk of soil loss is less than 0.5mm or a slope or batter greater than 1:2 (600).

**RIPARIAN (FRESHWATER)**

The riparian corridor is the area along the edge of the stream and forms the interface with the adjacent land. A combination of diverse ground cover vegetation and larger deeper rooted vegetation is desirable for stabilising stream banks and riparian zones. Riparian vegetation also filters surface and ground water runoff and creates greater connectivity of terrestrial habitats. Riparian zones also provide important habitat and stopping zones for terrestrial wildlife.

**INFILL / BUSH EDGE**

Long-term benefit with native planting, providing a buffer and transition zone between existing bush areas and adjacent paths and open spaces as well as segments existing vegetation adjacent to the path by providing infill and understory diversity planting. The bush edge/planting should create conditions where native plants can regenerate themselves so that eventually the planting can become self-sustaining.

**PATH EDGE**

The path edge planting is very planting adjacent to the side of the edge of the path that is not grass or lawn. All planting in this area must be low lying and resistant to the effects of trampling as well as environmental stresses such as drought and soil erosion.
4.8 Arts + Culture

Several opportunities for the integration of arts and culture into the proposed path alignment have been identified by key stakeholders. The following map indicates what and where these opportunities exist.

Mana Whenua representatives have confirmed that Te Aranga Design Principles are a useful and desired framework to use (as a starting point) to identify and explore opportunities for this project. During on-site conversations Mana Whenua have identified multiple opportunities to apply Te Aranga Principles, most explicitly through the principles of Mana Whenua. Whakapapa Mauri Tu, Mahi Toi and Tohu. During the design phase Mana Whenua have indicated their intention to recommend placement of māhia elements along the path.

Arts and culture along the proposed route can be expressed and celebrated through a wide range of opportunities including: stand-alone cultural and artistic artefacts as well as through existing or new infrastructure developed in association with the design and construction of the path. These include: public art, community art, iwi art, wayfinding, interpretive signage, infrastructure, and ecological restoration. Examples of path infrastructure that can integrate arts and culture are seating, viewing benches, boardwalk, jetties, bridge balustrades, and lighting. Ecological restoration elements should consider the re-establishment of māhia sites along the path where appropriate.

In parallel with Te Aranga Design Principles, the various opportunities for the integration of arts and culture have been identified under the following themes:

- Mahi Toi
- Social & Community Engagement
- Ecological and Cultural Narratives
- Prominent Views

<table>
<thead>
<tr>
<th>KEY - Opportunities for the Integration of Arts and Culture</th>
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<tbody>
<tr>
<td>- Mana Whenua</td>
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<tr>
<td>- Whakapapa</td>
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<tr>
<td>- Mauri Tu</td>
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<tr>
<td>- Mahi Toi</td>
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<tr>
<td>- Creative Expression</td>
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<td>- Living Presence</td>
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<td>- Environmental Health</td>
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Māra Whenua have expressed interest in naming the path and want this to be done sooner rather than later (even if it’s not official yet). “The longer you call it the Wetaford Centennial or Wetaford Greenway the harder it is for another name to be accepted.”
Item 13

Attachment D

5.0 Project Staging
5.1 Overview

The project staging describes each section as well as outlining further opportunities and identifies constraints. Each section is as follows:

- Section 1: Centennial Park south circuit
- Section 2: Centennial Park north circuit
- Section 3: Rodney Street to Centennial Park
- Section 4: Centennial Park Road path
5.2 Centennial Park Greenway | Section 1  
(Centennial Park south circuit)

This proposed route investigates the creation of a circuit around Westport Centennial Park, the tennis courts and path. The path is enclosed by the boundary of the sports fields and ensuring that the path will not interfere in the current operations of the site. The route also links the irrigated sports fields to the access road which also improves pedestrian safety.

Proposed Scope Statement

Section 1 - Centennial Park south circuit
1A. 12m long 2.5m wide concrete path with associated grubbing planting
1B. 26m long 2.5m wide gravel track
1C. 5m long 2.5m wide timber bridge over stream

Attachment D

Item 13
5.2 Centennial Park Greenway | Section 1
(Centennial Park south circuit)

Existing Character

- Wide expansive sports fields extending through the floodplain
- Rural chip sealed roads
- Limited concrete pedestrian only footpaths
- Sport clubrooms with adjacent netball and tennis courts
- Native and exotic ground cover adjacent to Flagstaff Road with a steep terrain
- Gentle hill sloping down from the north east.

Constraints

Relevant Draft Constraints Proposed in the Greenways Plan
- Width of the path in some places will pinch down i.e. behind the netball courts adjacent to the gravel road
- Centennial Park Road is a route heavily used by stock trucks, thus concerns for pedestrian safety when crossing the road and space for a shared path in sections.

Additional Constraints
- Paths needs to be 5m away from the touch lines for safety.
- Reinforcing is required where vehicles need to travel over the path
- Access needs to be designed for the A & P show traffic.

Opportunities

Relevant Draft Opportunities Proposed in the Greenways Plan
- Potential to enhance ecology and better stream quality
- Timing: The Welsford Structure Plan and the Proposed Unitary Plan shows future planned development in this area. The safeguarding of pedestrian connections prior to further development could ensure desired connections are secured in the future by developer contributions.

Additional Opportunities
- Providing a more direct route between the township and the park via the rail corridor.

Consenting Requirements

AUP ZONING
- Open space - Sport and Active Recreation Zone
- Road Reserve

LIMITATIONS
- Overland Flow Path and Floodplain
- Known Archaeology or Instability issues.

Planning Considerations

- Open space - Sport and Active Recreation Zone
  - Recreational Trails are a permitted activity under H7.1 (A49) or Rule 127 (A10) provides for “off-road pedestrian and cycling facilities” (Chapter E27 Transport) as a permitted activity in all zones subject to compliance with relevant standards.
  - Tree removal involving trees less than 4m in height and/or less than 400mm in girth is permitted (otherwise Restricted Discretionary Consent is required under EC.3.1 (A92)).
  - Earthworks for trails are a permitted activity under E12.4 (A1)
  - Any vegetation removal within 10m of urban streams is a restricted discretionary activity under E15.4.1 (A19).
- Road Reserve (Uniformed and including foot bridge)
- Road Network Activities including paths and bridges are permitted under E06.3.2 (A87).
- Assumed Earthworks of less than 2500m² are required (otherwise restricted discretionary consent is required under E06.3.2 (A106) outside of riparian area).
- Earthworks within riparian area of the stream is limited to 5m or 10m² (E06.0.5.2 (A20)) otherwise restricted discretionary activity consent will be required for exceeding these thresholds.

Land Ownership

- Auckland Transport (Uniformed Roads)
- Auckland Council

Next Steps

Investigations and Assessments required
- Significant Ecological Area - Territorial (SEA-T) Ecological Assessment
- Arboicultural Assessment
- Hydrology and Flooding Assessment

Design and Consenting
- Developed Design
- Assessment of environmental effects
- Resource and building consents
- Construction documentation
5.3 Centennial Park Greenway | Section 2
(Centennial Park north circuit)

The Centennial Park north circuit creates a loop around the council owned reserve which incorporates the running track. The path alignment passes along the edge of the open field, before passing in between the duck pond and the sports track.

This allows for Section 3 and Section 4, to connect into this route creating a path from the town centre through to Centennial Park.

Proposed Scope Statement

Section 2 - Centennial Park north circuit

2A - 850m long 3.0m wide concrete path with associated riparian planting

2B - 18m long 2.2m concrete footpath

Photo locations
5.3 Centennial Park Greenway | Section 2
(Centennial Park north circuit)

Existing Character
- Wide expansive fields extending through the floodplain with a sports track adjacent.
- Rural chip sealed roads.
- Limited concrete pedestrian only footpaths.
- Gentle hill sloping down from the north east.
- Towards the southern end of the sports track, there is a duck pond and Wellford Preschool Education Centre.

Consenting Requirements

**AUP ZONING**
- Open Space - Sport and Active Recreation Zone

**LIMITATIONS**
- Overland Flow Path and Floodplain
- No known Archaeological or Instability Issues.

Constraints

**Additional Constraints**
- Width of the path in some places will pinch down i.e behind the netball courts adjacent to the gravel road.
- Centennial Park Road is a route heavily used by stock trucks, thus concerns for pedestrian safety when crossing the road and space for a shared path in sections.

Opportunities

**Relevant Draft Opportunities Proposed in the Greenways Plan**
- Potential to enhance ecology and better stream quality.
- Turning The Wellsford Structure Plan and the Proposed Unitary Plan into a future planned development with pedestrian connections prior to further development could ensure desired connections are secured in the future by developer contributions.

**Additional Opportunities**
- Capital cost saving - gravel, monitor usage and then upgraded to concrete as section 3 is built (main connection to town due to increased usage and will provide an all-weather surface).

PLANNING CONCLUSIONS
- Will require restricted discretionary resource consent due to the earthworks in proximity to the stream within the riparian yard and potential vegetation removal.
- Is considered to be low risk subject to appropriate design methodology and mitigation.

Land Ownership
- Auckland Council

Next Steps

**Investigations and Assessments required**
- Significant Ecological Area - Terrestrial (SEAT 2) Ecological Assessment
- Arable Agricultural Assessment
- Hydrology and Flooding Assessment

**Design and Consenting**
- Developed Design
- Assessment of environmental effects
- Resource and building consents
- Construction documentation
Section 3 provides a more direct route from Wellsford Town Centre through to Centennial Park via a 2.2-3m wide concrete path. This path requires crossing the railway corridor via a timber bridge and passing through private land.

Originating on Rodney Street, the proposed route passes through a private property before crossing a 40m wide railway corridor. Moving through pastoral land, one component will require a boardwalk over a floodplain zone and overland flow path.

This Section can’t be constructed as a stand alone path as it requires Section 2 to provide a connection through to Centennial Park.

**Proposed Scope Statement**

**Section 3 - Rodney Street to Centennial Park**

3A - 600m long 2.2-3m wide concrete path with associated planting (subject to future zoning and access permission from land owners)

3B - 35m long 2.5m wide timber boardwalk (with kickrails)

3C - 45m long 2.5m wide timber bridge over railway
5.4 Centennial Park Greenway | Section 3
(Rodney Street to Centennial Park)

Existing Character

- Dense vegetation surrounds the 40m wide railway corridor
- Generally flat pastoral land with the exception of a steep trench containing an overlaid flow path
- Adjacent stockyards

Constraints

Additional Constraints

- Some sections require agreement with private landowners
- The minimum requirements to construct a safe path need to be met
- The location and design of the overbridge will require agreement from KiwiRail. A Grant of Right with KiwiRail is also required.

Opportunities

Relevant Draft Opportunities Proposed in the Greenways Plan

- Potential to enhance ecology and better stream quality
- Timing The Welsford Structure Plan and the Proposed Urban Plan shows future planned development in this area. The safeguarding of pedestrian connections prior to further development could ensure desired connections are secured in the future by developer contributions

Additional Opportunities

- For capital cost reduction, there is an opportunity to initially implement a gravel path and later upgrade to concrete path based on usage monitoring.

Consenting Requirements

AUP ZONING
- Business-Light Industrial (Section 3A)
- Future Urban Zone (Section of trail 3B)
- Strategic Transport Corridor Zone (Railway bridge 3C)
- Business-Town Centre Zone (Lot 3 DP 183334)

LIMITATIONS
- Overland Flow Path and Floodplain
- No Known Archaeology or Instability issues

PLANNING CONSIDERATIONS

- Business-Light Industrial (Section 3A)
  - Recreational Trails are a permitted activity under H7.9.1 (4A) or Rule E27.4.1(A10) provides for "off-road pedestrian and cycling facilities" (Chapter E27 Transport) as a permitted activity in all zones, subject to compliance with relevant standards.
  - Earthworks for trails are a permitted activity under E12.4.1 (A1)
- Future Urban Zone (Section 3B)
  - paths a permitted activity under Rule E27.4.1(A10) "off-road pedestrian and cycling facilities" (Chapter E27 Transport) in all zones, subject to compliance with relevant standards.
  - Earthworks for trails are a permitted activity under E12.4.1 (A1). Any boardwalk will be considered a new structure within the less than 1 percent AUP floodplain and a restricted discretionary activity under E36.4.1(A37). It is noted that an existing swim within the floodplain may be classified as an ephemeral or intermittent stream. Although no information is present to suggest this is the case, it is recommended a fresh water ecologist briefly visit the site to classify the stream to ensure no additional rules are triggered.
  - It is noted that the Future Urban Zone anticipates comprehensive and planned urban development in the future. It could therefore be assumed that any future change in regards to re-zoning would represent an opportunity to secure land for the purposes of this path.
- Strategic Transport Corridor Zone (Railway bridge 3C)
  - The construction, maintenance and use of cycleways and walkways within the Strategic Transport Corridor is a permitted activity under H22.4.1 (A1). Furthermore, new buildings associated with transport activities up to 10m in height is provided for as a permitted activity under H22.4.1 (A6). It is recommended a bridge be pursued (will need appropriate gradients) as level-crossings are a non-complying activity and in addition, are generally not supported in principle by KiwiRail where other alternatives are viable.
  - In order to establish a railway bridge, a deed of grant is required from KiwiRail as the land owner in order for any structure and associated use this application can take up to 3 months to process. It is understood that they generally support such features in principle, however it is recommended that KiwiRail be engaged at an early stage by way of preliminary discussions to ensure they agree to the bridge in principle and any designs meet their specifications.
- Road Reserve (Unformed and including footbridge)
  - Road Network Activities including paths are permitted under B16.3.2.2 (A57).
  - Assumed: Earthworks of less than 2500m² are required; otherwise Restricted Discretionary Consent is required under B16.3.2.2 (A10) outside of riparian area. Earthworks within riparian area of the stream is limited to 5m² or 10m² E26.6.5.2(C1)
  - Business-Town Centre Zone (Lot 3 DP 183334)
  - Paths a permitted activity under Rule E27.4.1(A10) "off-road pedestrian and cycling facilities" (Chapter E27 Transport) in all zones, subject to compliance with relevant standards.
  - Earthworks for trails are a permitted activity under E12.4.1 (A1).

PLANNING CONCLUSIONS

- Will require restricted discretionary resource consent due to boardwalks within the floodplain, otherwise the majority of the path is permitted and from a planning perspective considered to be low risk.
- It is recommended a fresh water ecologist be engaged in order to briefly establish the area of floodplain will not be classified as a stream.
- In regard to landowner issues, it is recommended KiwiRail be engaged at an early stage to discuss the proposed walkway over the railway corridor and obtain an in-principle agreement prior to finalising the design.

Land Ownership

- The Crown
- KiwiRail (Rail Corridor)
- Private land: Section 69 Block X.606 Omatares Survey District and Part Section 38 Block X.606 Omatares Survey District
- Auckland Council

Next Steps

Investigations and Assessments required
- Initiate engagement with KiwiRail regarding railway crossing with proposed bridge
- Architectural assessment
- Topographical survey

Design and consenting
- Developed Design
- Assessment of environmental effects
- Resource and Building consents
- Land owner approvals and land access/ easements
- KiwiRail permit/approvals
SECTION 3 - Rodney Street to Centennial Park

SECTION 3A - 2.2-3m wide concrete path (subject to future zoning and access permission from land owners)

BRUSHED CONC. FINISH

- 3mm thick tarmac mix with 20% (by volume) crushed stone. Brushed finish to be installed over a compacted base and subbase to engineer specification.

SECTION 3B - 3m wide timber bridge (with kickrails)

H4 PINE DECKING

- FSC certified hardwood or H4 treated pine decking beams with aluminium metal inserts to enhance required slip resistance coefficient.

Property Fence

2.2 - 3m

PATH

Section F 1150

INDICATIVE FLOODPLAIN

ASSOCIATED AUCTIONEERS LIMITED BOARDWALK

Section G 1150
5.5 Centennial Park Greenway (Centennial Park Road path)

Proposed Scope Statement

Section 4 - Centennial Park Road path

4.1 Construct a 2.3m wide paved path through the proposed development with associated plantings from land owners.

4.2 - 4.5m long 2.3m concrete path with associated planting.

This section explores a route from Matthews Road, through to the northern end of Centennial Park. The path is designed to provide walking and cycling opportunities for people coming from the north of the town and is reliant on landowner access permits into the park. It is a shared path that will effectively function in the future due to the proposed development on the northern end.

The path requires and is subject to securing a right of way
5.5 Centennial Park Greenway | Section 4
(Centennial Park Road path)

Existing Character
- The 50 km/h rural road has adjacent, to sports fields and pastoral land.
- Large table drain, mostly insufficient width to create a safe path within the road corridor.
- A variety of native and exotic vegetation runs along the roadside.

Constraints

Relevant Draft Constraints Proposed in the Greenways Plan
- Centennial Park Road is a route heavily used by stock trucks, thus concerns for pedestrian safety where crossing the road and space for a shared path in sections.

Additional Constraints
- Currently there is no street lighting and the residents do not support the addition of lighting.
- Land will require significant earthworks to form the path.
- Wider entrance way for pedestrians to safely navigate at the stockyards.
- The northern end will require consideration regarding the path alignment to ensure that it does not interfere with the railway operations.
- Some sections require agreement with private landowners.

Opportunities

Relevant Draft Opportunities Proposed in the Greenways Plan
- Potential to enhance ecology and better stream quality.
- Timing of the Wellington Structure Plan and the Proposed Unitary Plan shows future planned development in this area. The safeguarding of pedestrian connections prior to further development could ensure desired connections are secured in the future by developer contributions.

Consenting Requirements

AUP ZONING
- Future Urban Zone (Section of trail 4a)
- Business Light Industrial Zone
- Open Space-Sport and Active Recreation Zone

LIMITATIONS
- Floodplain

PLANNING CONSIDERATIONS
- Future Urban Zone (Section 4a)
  - Paths are permitted activity under Rule E27.41(A10) “off-road pedestrian and cycling facilities” (Chapter E27 Transport) in all zones, subject to compliance with relevant standards.
  - Earthworks for trails are a permitted activity under E12.4.1(A1).

PLANNING CONCLUSIONS
- Works are anticipated to be a permitted activity unless tree removal and earthworks are greater than the permitted thresholds identified above. This is considered to be low risk.
- It is noted that the Future Urban zone anticipates comprehensive and planned urban development in the future. It could therefore be assumed that any future plan change in regards to re-zoning would represent an opportunity to secure land for the purposes of this path.

Land Ownership
- Private land, Lot 1 Deposited Plan 135777
- Private land, Lot 2 Deposited Plan 355796
- Auckland Transport (Road Corridor)
- Private land, Lot 2 Deposited Plan 355796
- Private land, Lot 3 Deposited Plan 355796
- Private land, Lot 1 Deposited Plan 82034
- Private land, Lot 2 Deposited Plan 355621
- Private land, Section 69 Block XV1 Otahuhu Survey District and Part Section 38 Block XVI Otahuhu Survey District
- Auckland Council

Next Steps
- Investigations and Assessments required
  - Aricultural Assessment
  - Floodling Assessment
- Design and consenting
  - Developed Design
  - Assessment of environmental effects
  - Resource and building consents
  - Land owner approvals and land access/ easements with private residential and industrial property owners subject to future zoning.
SECTION 4A - 5m wide corridor to accommodate a 2-3m wide concrete path (subject to future zoning and access permission from land owners)

BRUSHED CONC. FINISH

5mm-buff-slip max. dark grey/9% Craigs) makes brushed finish. To be installed over a compacted base and subject to Engineer specification.

SECTION 4B - 2-3m wide concrete path

BRUSHED CONC. FINISH

5mm-buff-slip max. dark grey/9% Craigs) makes brushed finish. To be installed over a compacted base and subject to Engineer specification.