

**Te Ara Ki Uta Ki Tai  
Glen Innes to Tāmaki Shared Path - Section 4A & 4B  
Concept Design  
01.06.2021**

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Document Control_					
Rev.	Date_	Purpose_	Prepared_	Checked_	Authorised_
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v2	31.05.2021	Concept Design	ZW	SG	HC
v3	01.06.2021	Concept Design	ZW	SG	HC

This document was prepared by LandLAB Ltd. for Auckland Transport and GHD.  
 Project Team\_ Henry Crothers, Scott Greenhalgh, Zihao Wang, Greer Camine, Bela Grimsdale.

# 1.0 Introduction

The design intent is to divide the pathway into 3x segments that relate to the landscape context representing an over land pathway, over water boardwalk, and a 'bridge' section.

A placemaking overlay includes a lookout and series of vertical markers which provide wayfinding, cultural expression, and a place to rest and reveal the significant histories and narratives of the area.

## Purpose\_

This document outlines a design strategy and defines finishes and materiality for Section 4A & 4B of the Glen Innes to Tāmaki Shared Path. It includes a placemaking/interpretive overlay (developed with Mana Whenua) and a series of visuals to assist in communication and visual assessment of the project.

## Scope\_

Section 4A & 4B of the Glen Innes to Tāmaki Drive Shared Path consists of an overwater boardwalk starting from the Purewa Bridge on Ōrākei Road, sweeping along the edge of the coastline landing at Whakatakataka Reserve and continuing alongside Ngapipi Road, past the boat sheds joining to an existing connection to Tamaki Drive.

## Design\_

### 001 Vision

The overarching project vision is Te Ara Ki Uta Ki Tai – The Path of land and sea.

Section 4A & 4B celebrates the connection from Ōrākei to the Waitematā through a robust and continuous pathway interpreting design excellence and creative expression through subtle adaptations of materials, finishes and detail that respond to and engage with this changing environment.

### 002 Design Principles

#### Cohesive

A cohesive design language and materiality complementing the coastal landscape.

#### Sinuous

Celebrating the sinuous and curved structural form, reflecting the surrounding landform of headlands and bays.

### 003 Pathway Segments

The pathway is conceptually divided into 3x segments that relate to the landscape context representing an over land pathway, over water boardwalk, and a 'bridge' segment.

#### Segment 001 (Land based)

A 4.0m wide land based pathway connecting the existing Tāmaki Drive path to Whakatakataka Reserve through a widened shared path along the coastal side of Ngapipi Road.

#### Segment 002 (Boardwalk )

4.5m wide boardwalk with a lightweight steel balustrade located on the segment from Ōrākei Road Bridge to Whakatakataka Reserve providing an over water boardwalk experience at approximately 4.0m R.L following the curvature of the headland.

#### Segment 003 (Bridge)

4.5m wide 'bridge' segment of boardwalk at approximately 8.0m R.L with a more solid timber and steel balustrade referencing the adjacent Ōrākei Road Bridge.

### 004 Design Parameters

The pathway is categorised as a recreational shared path with expected high commuter use comprised of a 4.0m wide on land pathway and 4.5m wide boardwalk sections.

### 005 Design Components

#### Lighting:

Utilising existing street light poles for the landbased pathway sections, 6.0m high poles in the reserve, and integrated LED handrail downlighting on boardwalk sections to PP3 lighting standards providing for safe and moderate use.

# 1.0 Introduction cont.

## Balustrade (Boardwalk)

A cohesive and sinuous light weight steel balustrade along the boardwalk segment consisting of 40x10mm steel flat bars providing a connection to the water and enhancing the sweeping & sinuous boardwalk alignment.

## Balustrade (Bridge)

The integration of 50x50mm vertical timber battens along the 'bridge' segment of boardwalk referencing the adjacent road bridge, including solid steel panels located at entry and transition points to land.

## Surface Finishes

Standard Auckland Transport exposed aggregate concrete finish along pathways. Sandblasted concrete finish along the boardwalk segments with decorative sawcuts on the 'bridge' segment and paving inserts to reference the underlying fossil beds along the 'boardwalk' segment.

## Piles

700x700mm square precast concrete piles with a light exposed aggregate finish and to provide a mid-grey textured appearance.

## Lookout

The integration of 1x cantilevered lookout approx. 4x4m in size located at the apex of the boardwalk segment providing a rest point and outlook to Maungawhau, the Waitemata harbour, and city views. Includes a seating element and potential interpretation integration.

## Vertical Markers

3x vertical markers (pouwhenua) have been developed in collaboration of Mana Whenua and artist Graham Tipene to provide wayfinding and cultural interpretation points along

the pathway.

Pouwhenua are vertical markers positioned along the pathway to identify and reveal important places and stories of this place.

The pouwhenua are approximately 400x400mm x 5.0m tall, and include integrated timber artworks, perforated patterns, lighting, and interpretive information.

These elements are to be further developed in collaboration with nominated mana whenua artist Graham Tipene.

## Street Furniture

A simple suite of timber seating elements is included to provide cohesive materiality referencing the waterfront & boat shed context.

## Interpretive Information

- Interpretive artworks and text information are proposed to be integrated into the 3x vertical markers (to be further developed with Mana Whenua).
- Pavement patterns and disc inserts distributed along the boardwalk surface to reference the underlying geology and fossil beds below.

## Rockfall Protection

Wire mesh rock fall protection device applied to the cliff face in the area opposite the boatsheds to prevent rock fall onto the new road alignment. Includes mitigation planting and climbing species at the base.

## Consultation\_

LandLAB have attended two Auckland Transport Mana Whenua hui held during this concept design phase for stage 4A & 4B in April and May of 2021. Mana Whenua confirmed the development of mahi toi (creative expression) elements to continue with artist Graham Tipene for consistency with previous stages & adjacent projects. Workshops with Graham Tipene lead to the development of 3x pou whenua distributed along the pathway. At the second hui, the concept design and pou whenua concepts were supported with the following recommendations and actions:

- confirm narratives and the relationship with the location of each pouwhenua
- consider placement of pouwhenua to facilitate outdoor education
- further develop specific artworks for each

## Items for further development\_

Items requiring continued design developed & refinement in future design stages:

- pouwhenua placement and design development with Graham Tipene
- follow up hui with Mana Whenua
- balustrade extents and details
- refinement of junction balustrades at Ōrākei Road Bridge & Whakatakataka Reserve
- surface finishes and disc insert details
- lookout design refinement & details
- Whakatakataka Reserve planting & furniture integration.

## 2.0 Context

The Glen Innes to Tāmaki Drive Shared Path is delivered in 4 x sections.

WAITEMATĀ HABOUR

TĀMAKI DRIVE

WAITARAMOA

Section 4

HOBSON BAY

ŌRĀKEI TRAIN  
STATION

Section 3

ŌRĀKEI

Section 2

ŌRĀKEI  
BASIN

MEADOWBANK

ST JOHNS

Section 1

GLEN INNES

Staging\_

- Section 1
- Section 2
- Section 3
- Section 4

TE WAITEMATĀ



### Original Place Names\_

- Waitaramoa 'spear grass water' Hobson Bay
- Takaparāwhau 'the cutting down and clearing of the Whau shrub' the point of Ōrākei wharf
- Taurarua 'song of annoyance' a pā that stood on the headland
- Matakarehāre 'spear brandishing' a beach in Hobson Bay.
- Maungarahiri 'Rahiri's Hill' now quarried away.
- Okahu 'O Kahu' the place of Kahu, the bay and settlement at Ōrākei
- Omahutaka
- Onepuwhakatakataka 'the place where one slipped' Ngāti Whātua war party attacked at Pokanoa.
- Te Pokanoa a Tarahape 'the foolish act of Tarahape' a tapu waka landing place resulting in death of several people.
- Ōrākei 'O Rakei' place of Rakei chief of Tokomaru waka, a place at the mouth of Pourewa Creek.
- Pourewa 'the elevated platform' sentry post on poles watch tower
- Taiharapapaki 'sea beaten cliff front'
- Te Toangaroa 'the long pulling or dragging' of waka in Mechanics Bay

## 3.0 Concept Design



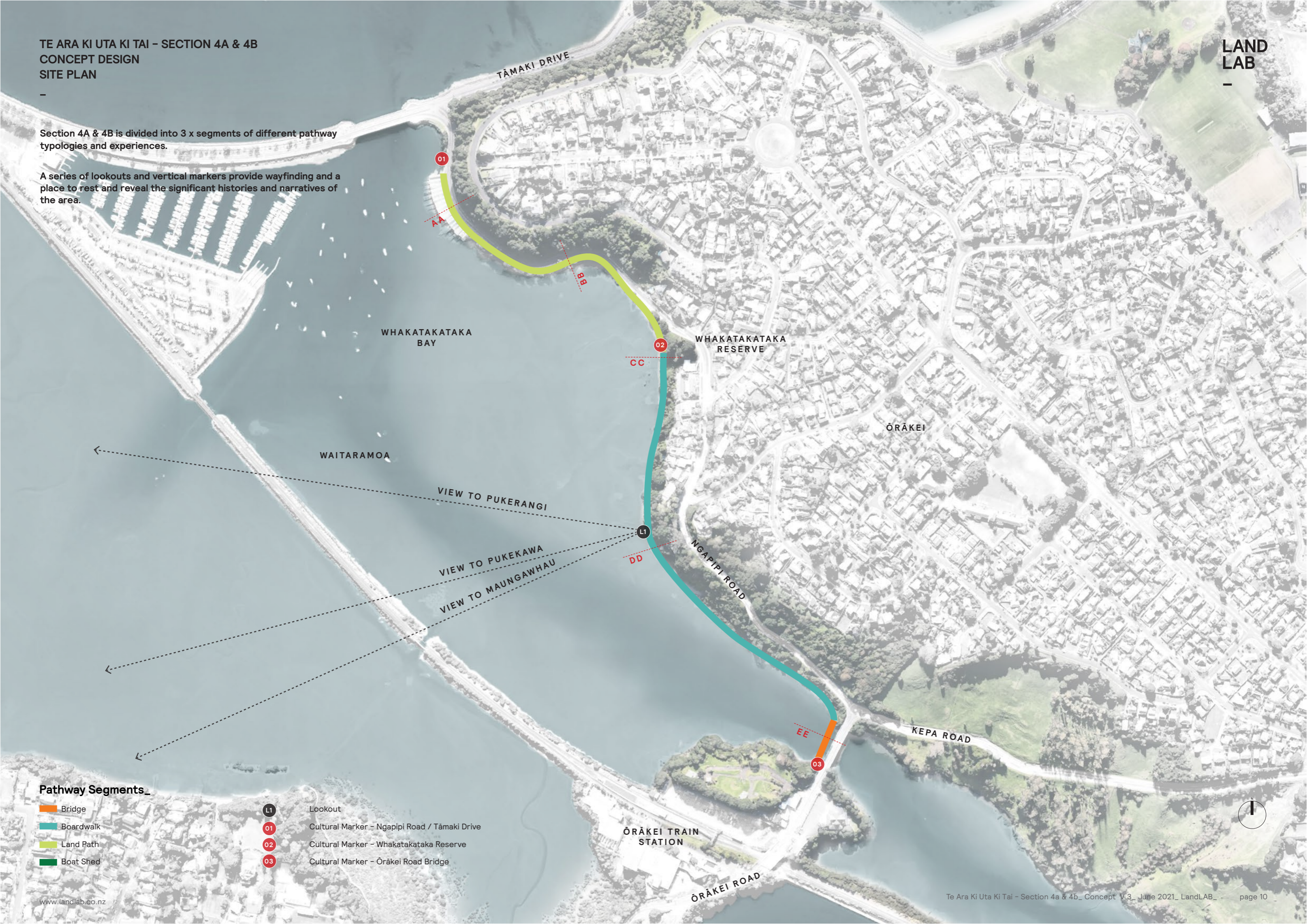
## **Te Ara Ki Uta Ki Tai – The path of land and sea**

**Section 4A & 4B celebrates the connection from Ōrākei to the Waitematā through a robust and continuous pathway interpreting design excellence and creative expression through subtle adaptations of materials, finishes and detail that respond to and engage with this changing environment\_**

TE ARA KI UTA KI TAI - SECTION 4A & 4B  
 CONCEPT DESIGN  
 SITE PLAN

Section 4A & 4B is divided into 3 x segments of different pathway typologies and experiences.

A series of lookouts and vertical markers provide wayfinding and a place to rest and reveal the significant histories and narratives of the area.



Pathway Segments

- Bridge
- Boardwalk
- Land Path
- Boat Shed

- L1 Lookout
- 01 Cultural Marker - Ngāpipi Road / Tāmaki Drive
- 02 Cultural Marker - Whakatakataka Reserve
- 03 Cultural Marker - Ōrākei Road Bridge



**Function\_**

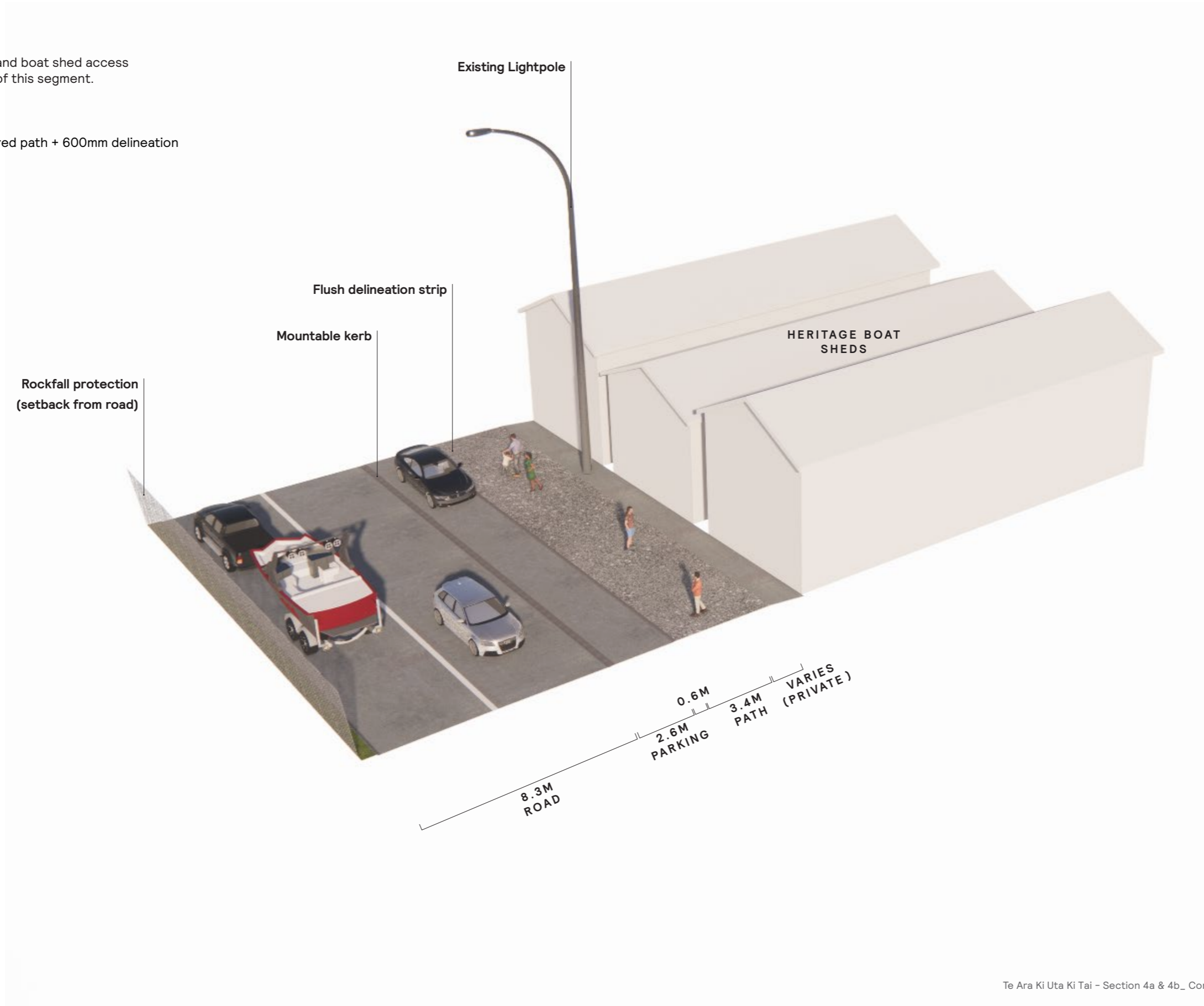
New shared path between Whakatakataka Bay and the boat sheds along Ngapipi Road.

**Design Intent\_**

- Provide a safe pathway, parking and boat shed access reflecting the unique character of this segment.

**Proposed Elements\_**

- Footpath widened to a 3.4m shared path + 600mm delineation strip totals 4.0m wide
- Relocated parking





**Function\_**

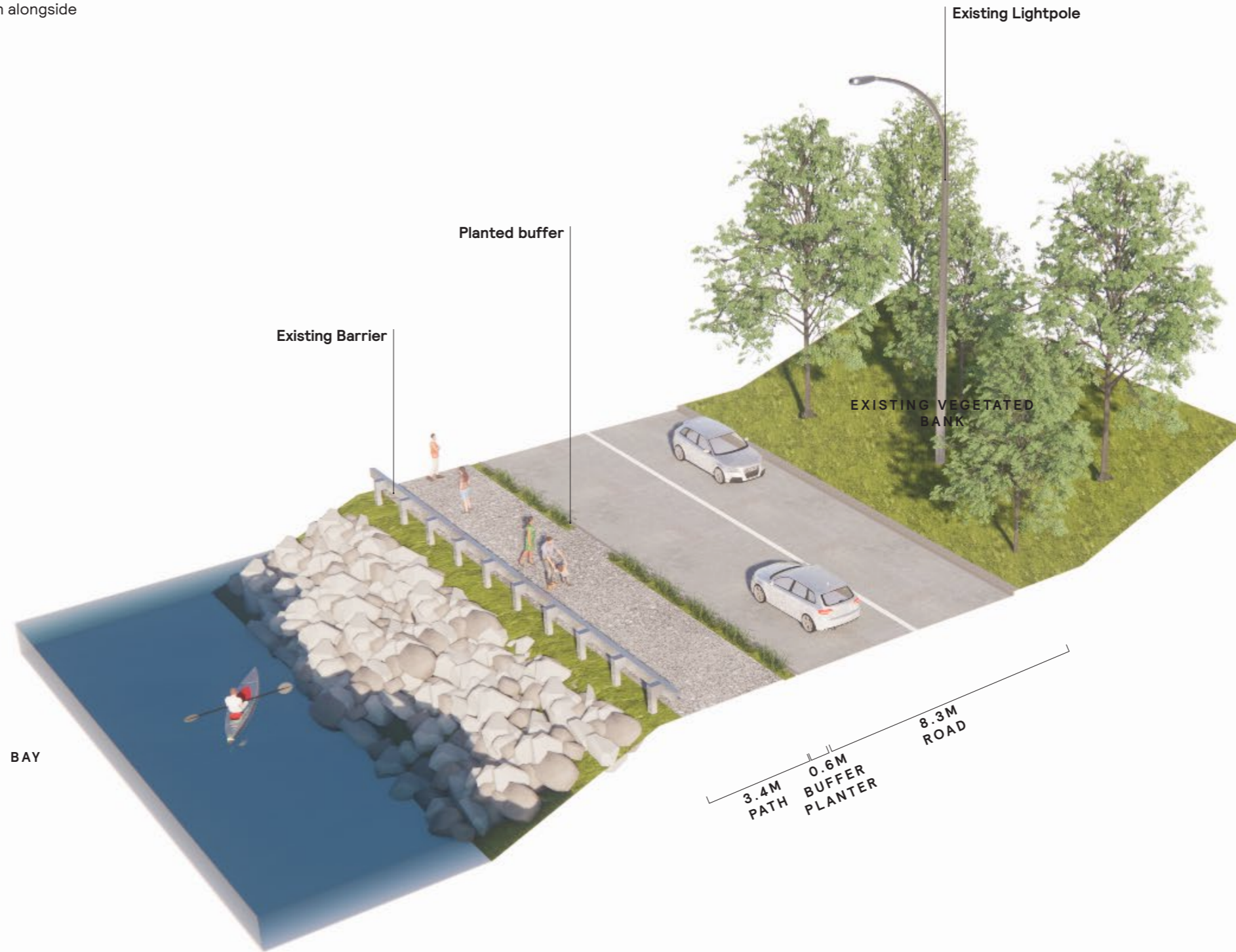
Path segment between Whakatakataka Bay and Ngapipi Road.

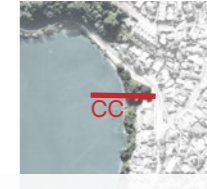
**Design Intent\_**

- Provide a safe landbased shared path connection alongside Ngapipi Road.

**Proposed Elements\_**

- Widened shared path
- Planted buffer to the road





**Function\_**

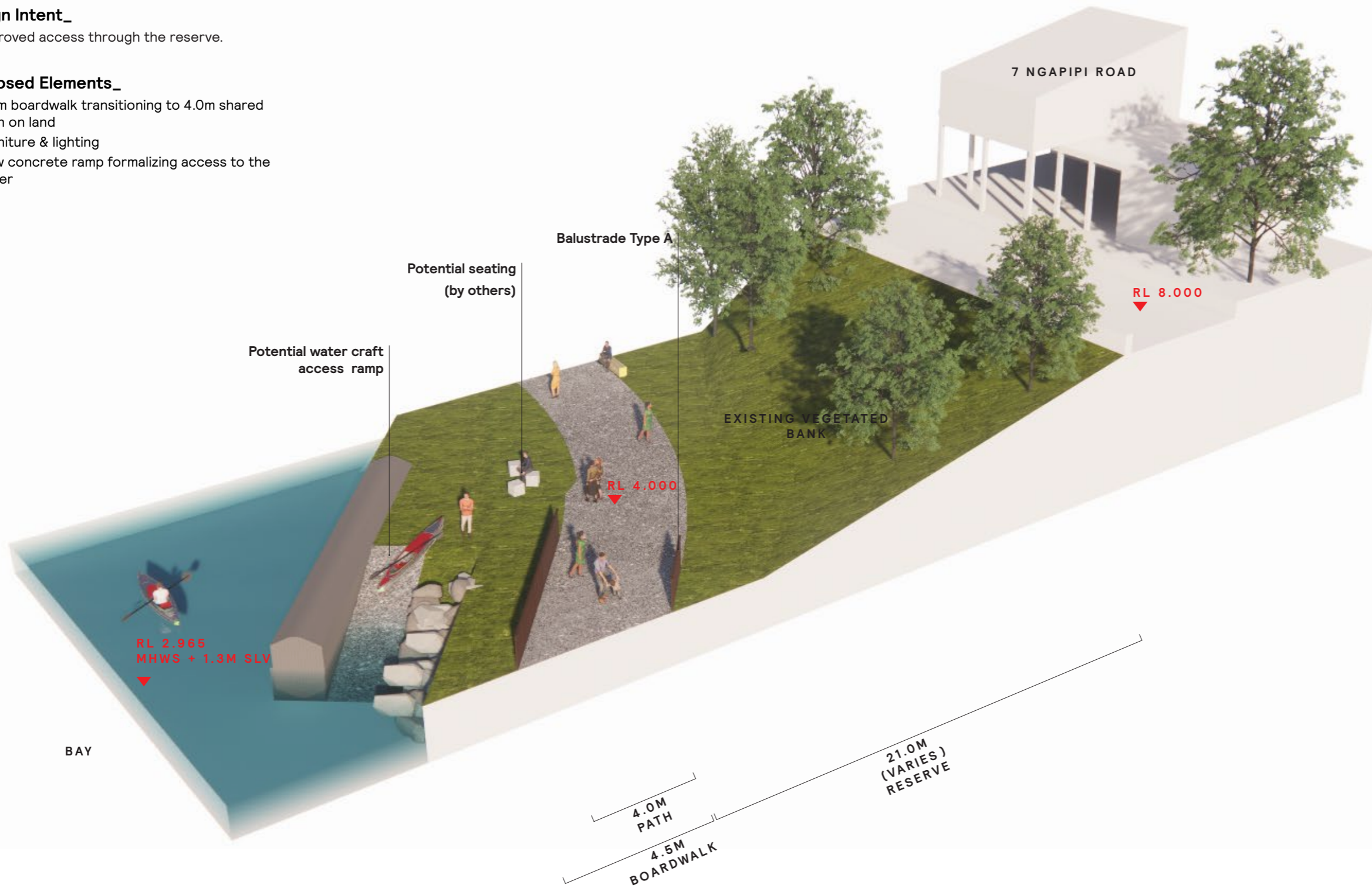
Transition from Boardwalk to on-grade path at through Whakatakataka Reserve.

**Design Intent\_**

- Improved access through the reserve.

**Proposed Elements\_**

- 4.5m boardwalk transitioning to 4.0m shared path on land
- Furniture & lighting
- New concrete ramp formalizing access to the water





**Function\_**

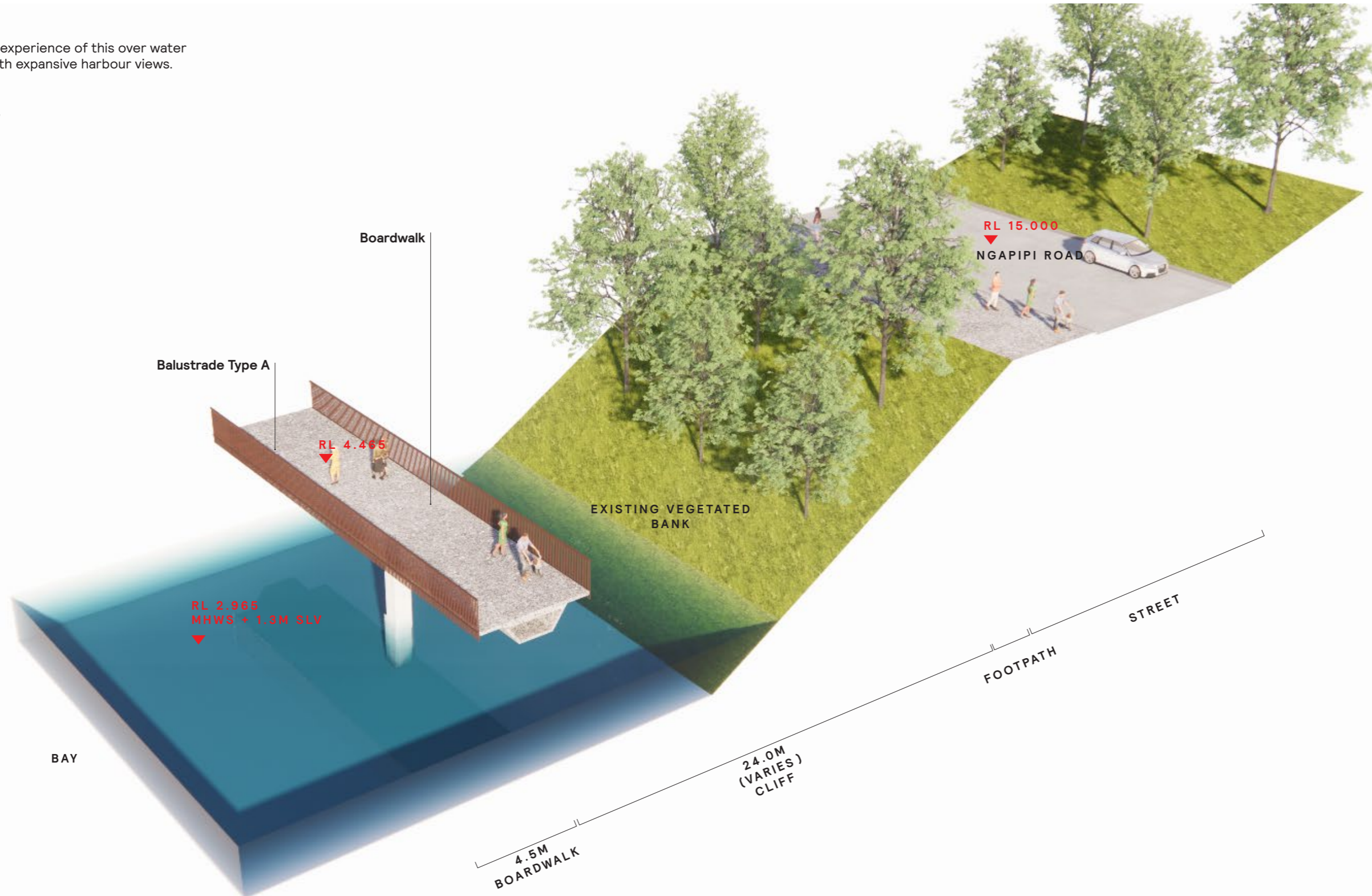
Over water Boardwalk segment.

**Design Intent\_**

- Differentiate the user experience of this over water boardwalk segment with expansive harbour views.

**Proposed Elements\_**

- 4.5m wide boardwalk
- Balustrade Type A

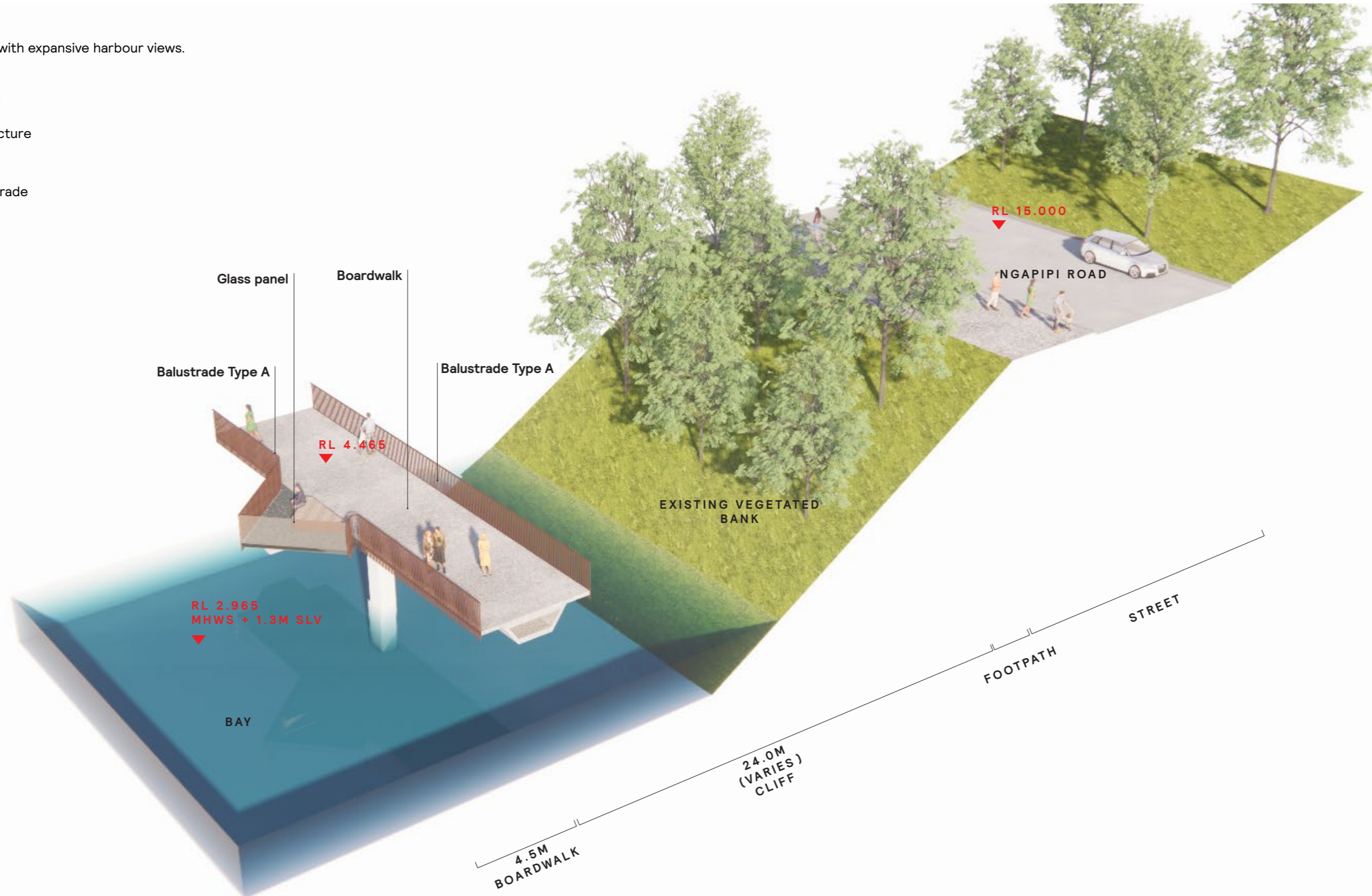




**Function\_**  
Lookout.

**Design Intent\_**  
A rest point and lookout with expansive harbour views.

- Proposed Elements\_**
- lookout approx 4x4m
  - Concrete clip-on structure
  - Steel mesh surfacing
  - Timber platform seat
  - Glass panel end balustrade





**Function\_**

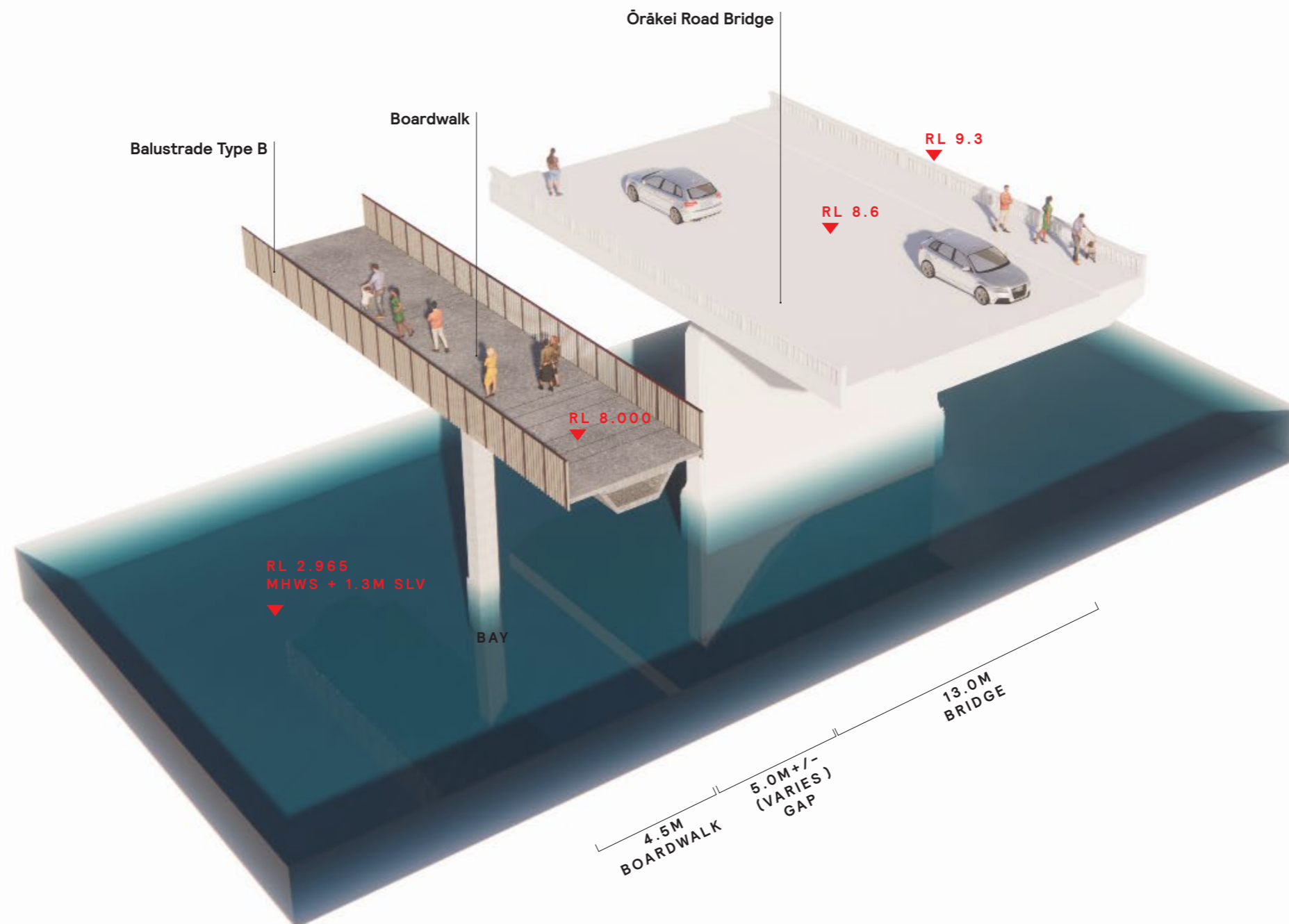
Shared path boardwalk adjacent the Ōrākei Road bridge.

**Design Intent\_**

- To complement the existing road bridge.

**Proposed Elements\_**

- 4.5m wide boardwalk
- Balustrades Type B

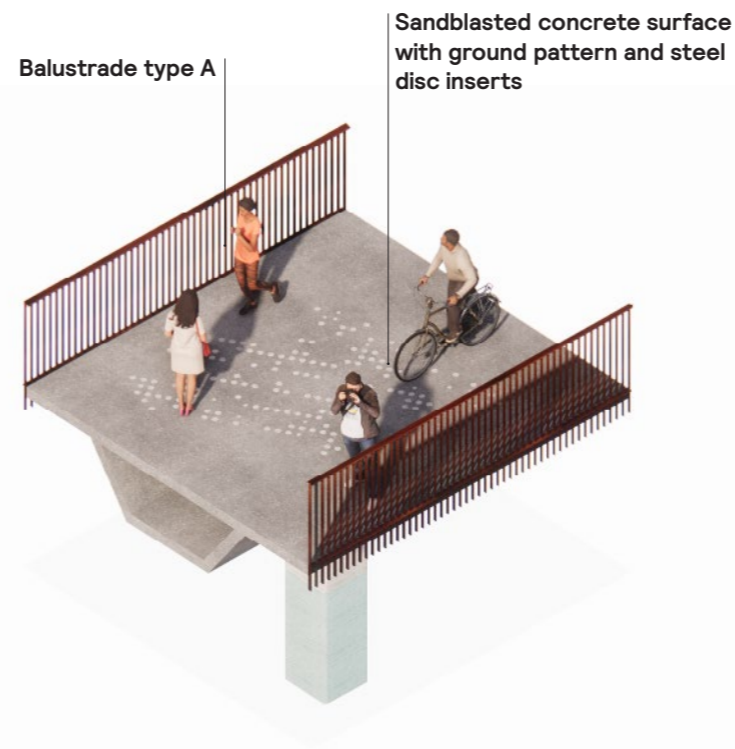






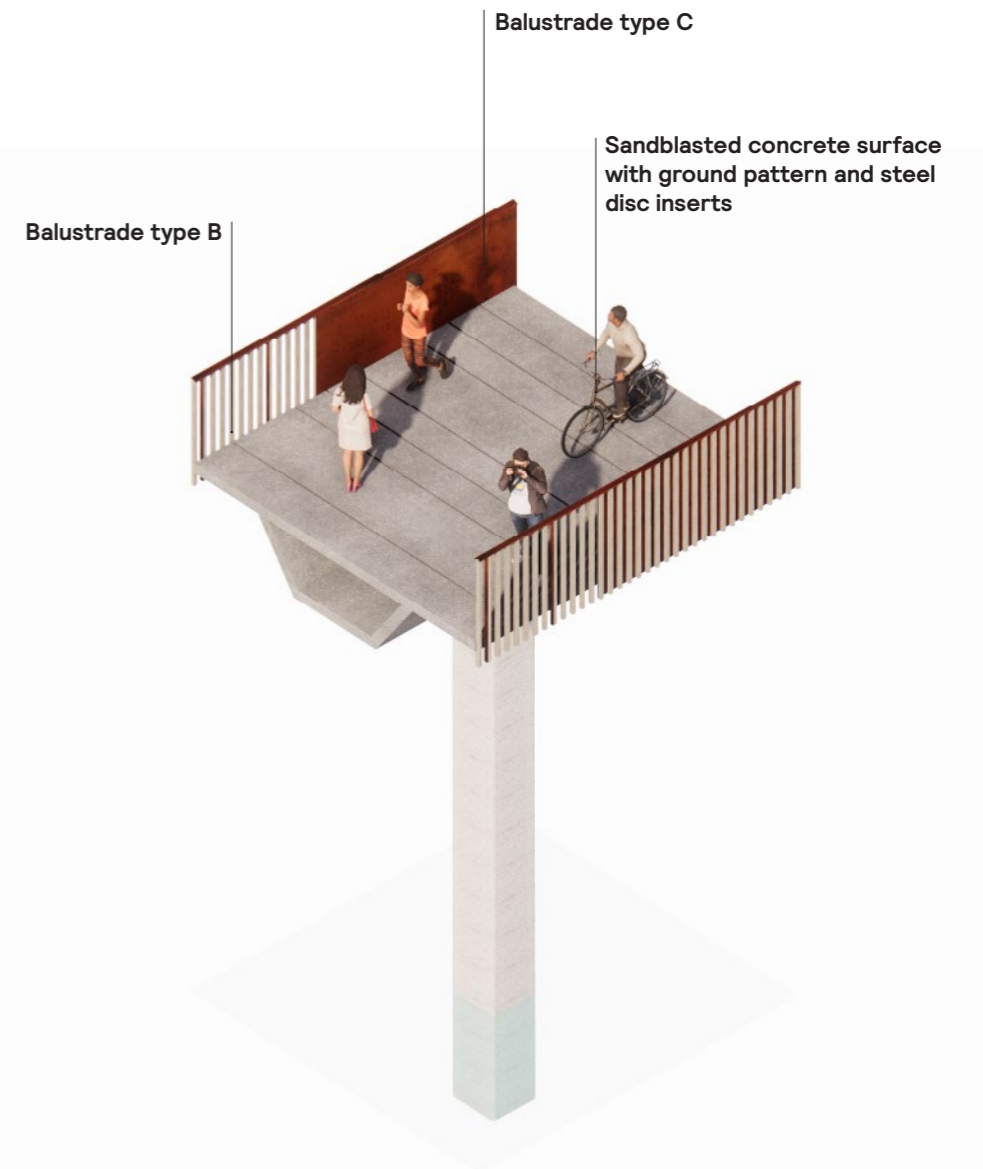
**Pathway\_**

4.0m width pathway with AT exposed concrete surface finish located from Whakatakataka reserve to Tāmaki Drive.



**Segment 1 'Boardwalk'\_**

4.5m wide boardwalk located on the segment from Ōrākei Road Bridge to Whakatakataka Reserve.



**Segment 2 'Bridge'\_**

4.5m wide boardwalk located on the segment adjacent Ōrākei Road Bridge.

**Segment 1 'Boardwalk'**

Balustrade: 40x10mm flat bar verticals at 100 CTRS.

Boardwalk level 4.465m RL

Sandblasted concrete surface with ground pattern and steel disc inserts reflecting the underlying geology & fossil beds under the boardwalk.

Form finish concrete box girder structure.

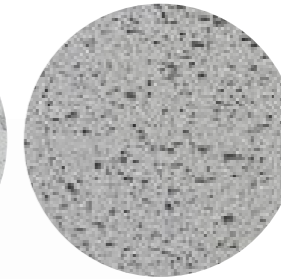
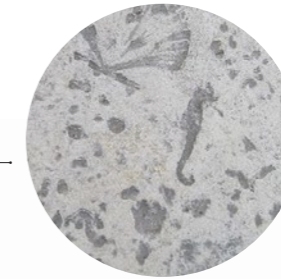
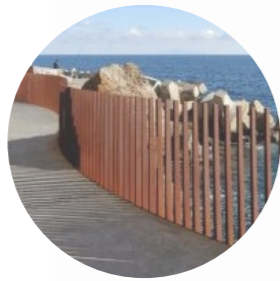
Lightly exposed aggregate piles.



Balustrade type A



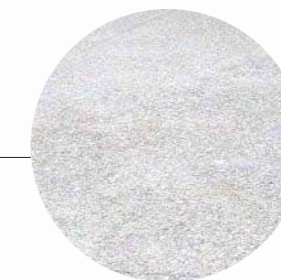
Steel balustrade



Sandblasted concrete surface with ground pattern and steel disc inserts reflecting the underlying geology & fossil fields under the boardwalk.



Standard form finish box girder finish.



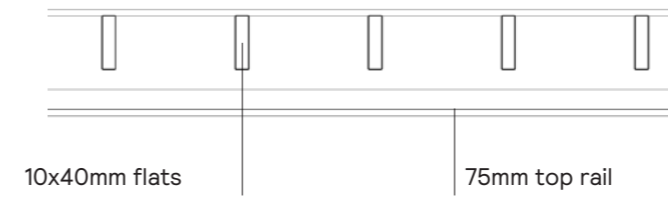
Lightly exposed aggregate concrete pile finish.

**Design Intent\_**

Steel balustrade to deliver sinuosity, cohesiveness, flow, and rhythm whilst maintaining visual permeability by minimising balustrade thickness and removing structural posts.

**Outline Specification\_**

- 40x10mm flat bar balustrade @ 100mm spacings
- 75mmx35mm RHS angled top rail.
- Countersunk handrail down lights.
- HDG steel with paint finish.
- Colour: dark & recessive copper/corten steel tone.



**Plan Detail\_**



**Balustrade Type A\_**

**Segment 2 'Bridge' \_**

Balustrade Type B: 50mm x 50mm x timber posts at 150mm spacings.

Balustrade Type C: 50mm x 50mm x timber posts at 150mm spacings over solid steel panels.

Boardwalk level 8.5m RL

Sandblasted concrete surface with sawcut concrete finish.

Form finish textured concrete piles.



Steel balustrade



Balustrade type B



Standard form finish box girder finish.

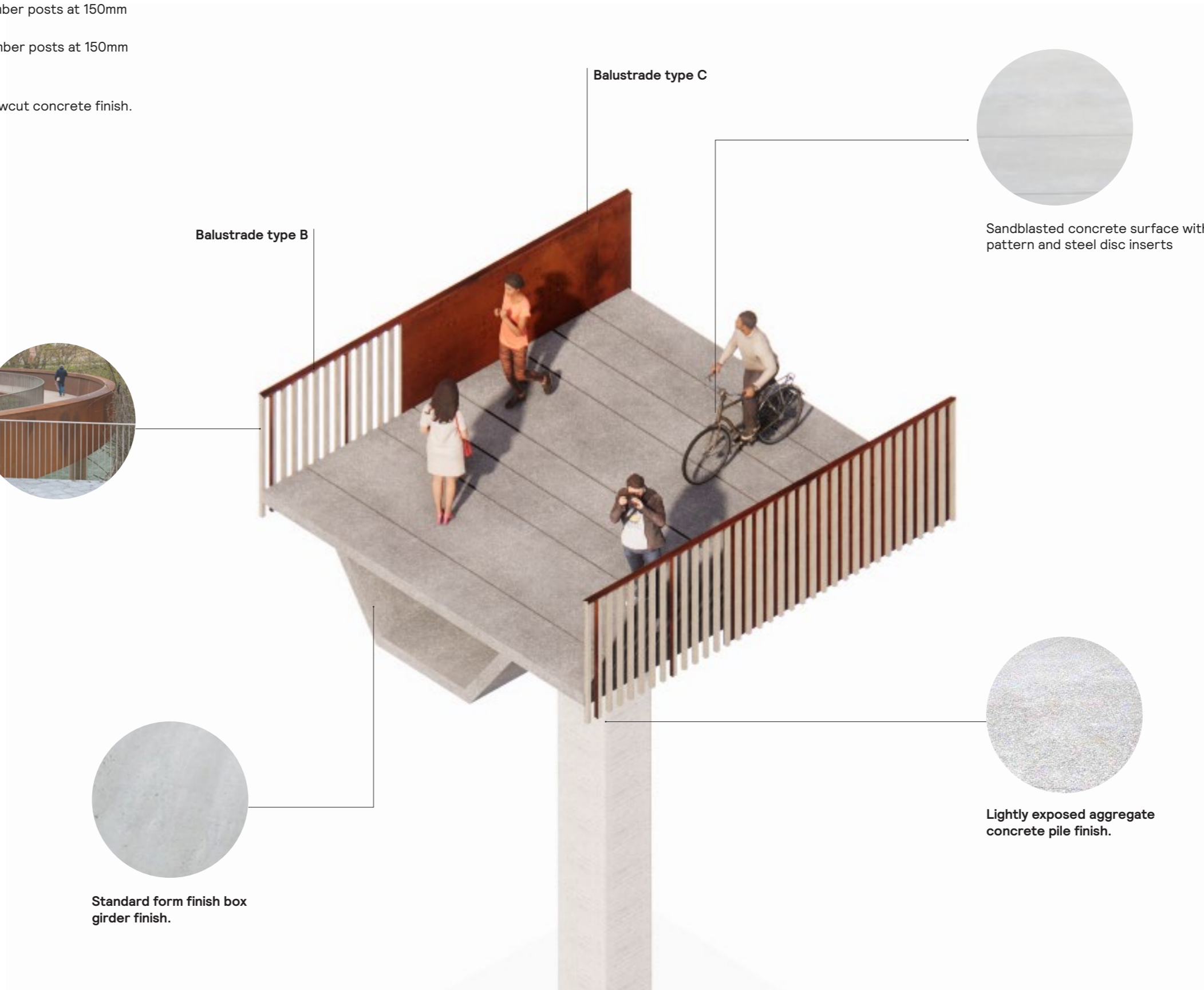
Balustrade type C



Sandblasted concrete surface with ground pattern and steel disc inserts



Lightly exposed aggregate concrete pile finish.

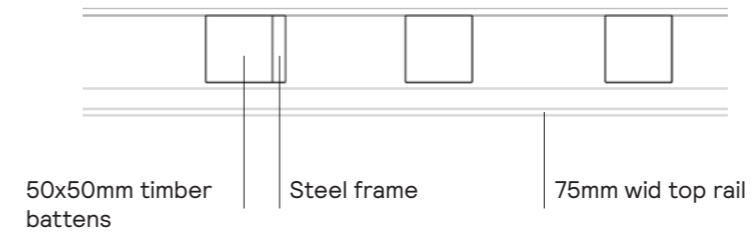


**Design Intent\_**

Timber batten balustrade fixed to a steel frame differentiating the 'bridge' segment on the boardwalk.

**Outline Specification\_**

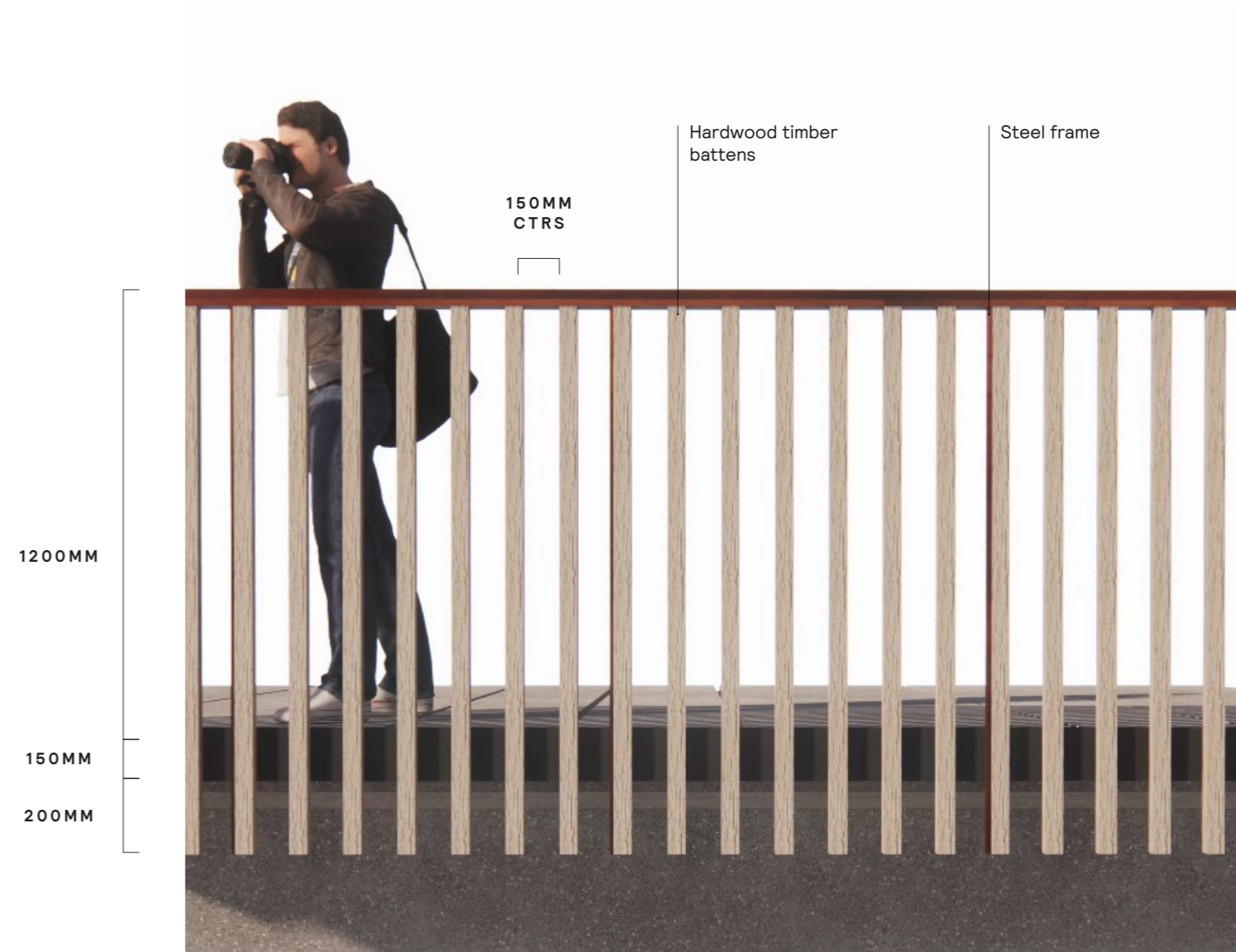
- 50x50mm hardwood timber battens @ 150mm spacings
- Steel frame at 1050mm CTRS TBC by engineer.
- 75mmx35mm RHS angled top rail.
- Countersunk handrail down lights
- HDG steel frame with paint finish.
- Colour: dark & recessive copper/corten steel tone.



**Plan Detail\_**



**Balustrade Type B\_**



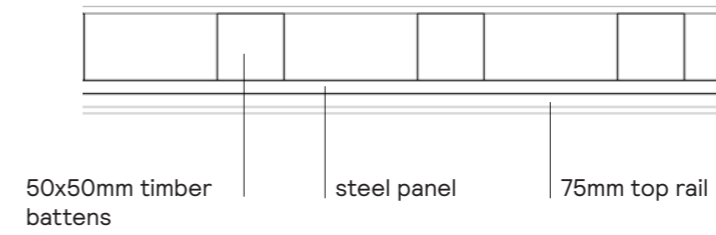
TE ARA KI UTA KI TAI - SECTION 4A & 4B  
 CONCEPT DESIGN  
 BALUSTRADE DETAIL - TYPE C

Design Intent\_

Combined solid steel panel and timber batten balustrade identifying key junctions and thresholds.

Outline Specification\_

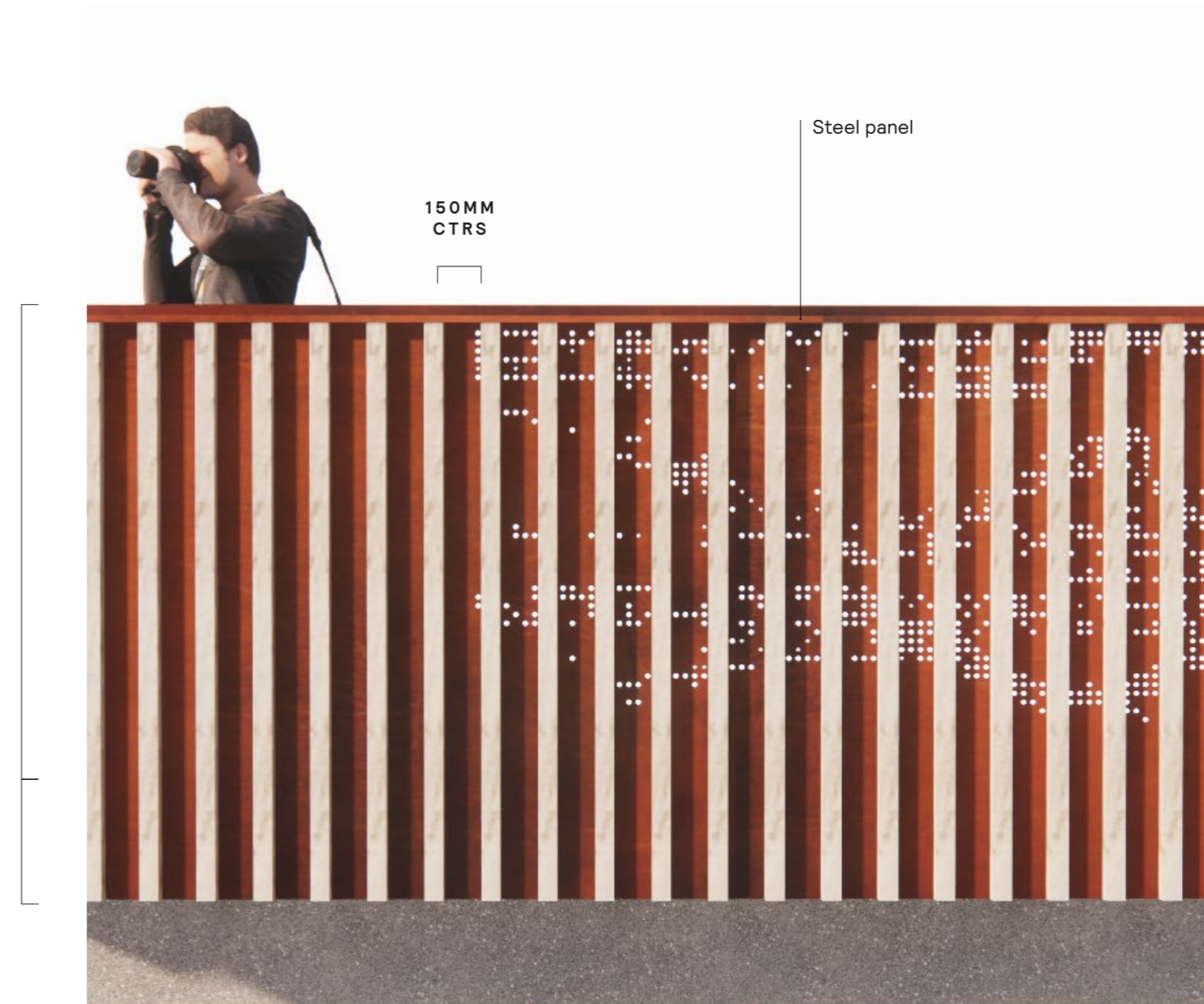
- 6mm solid steel panels with 50x50mm hardwood timber battens @ 150mm spacings
- 75mmx35mm RHS angled top rail.
- Countersunk handrail down lights
- HDG steel with paint finish.
- Colour: dark & recessive copper/corten steel tone.
- Potential perforated pattern applied to solid panels. Pattern to be developed.



Plan Detail\_



Balustrade Type C\_



This page illustrates the suite of wayfinding elements for Te Ara Ki Uta Ki Tai. A cohesive suite across the length of the boardwalk and pathway.



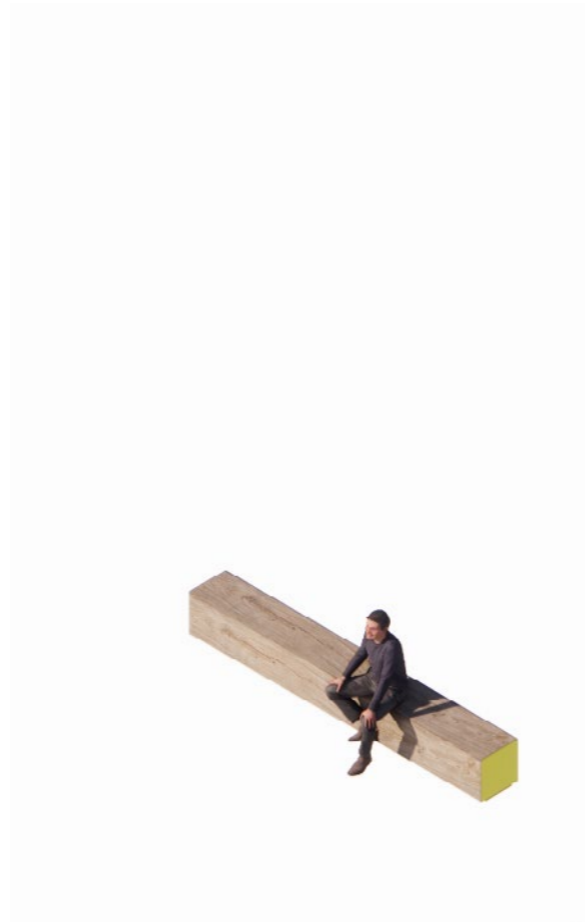
**Light Pole\_**

6000mm H  
AT standard pedestrian scale light pole with AT approved fitting, Powder coated with standard AT grey finish



**Sign\_**

2000mm H x 500mm W  
AT Standard totem with map and wayfinding information.



**Seat\_**

3200mm L x 400mm W x 400mm H  
Solid hardwood timber seating element reflecting existing maritime context.



**Seat cluster\_**

600mm W x 500mm L x 400mm H  
Surface mounted stone perchable seating offering informal seating opportunities.



**Vertical Marker Pou\_**

5000mm H  
Timber and steel vertical marker and cultural artwork element to be further developed with appointed artist input.

This page illustrates the potential design for vertical cultural markers to be positioned in significant locations to tell important mana whenua stories of this place.

**Design Intent\_**

3x vertical markers (pouwhenua) have been developed in collaboration of Mana Whenua and artist Graham Tipene to provide wayfinding and cultural interpretation points along the pathway.

Pouwhenua are vertical markers positioned along the pathway to identify and reveal important places and stories of this place.

The pouwhenua are approximately 400x400mm x 5.0m tall, and include integrated timber artworks, perforated patterns, lighting, and interpretive information.

These elements are to be further developed in collaboration with nominated mana whenua artist Graham Tipene.

**Elements\_**

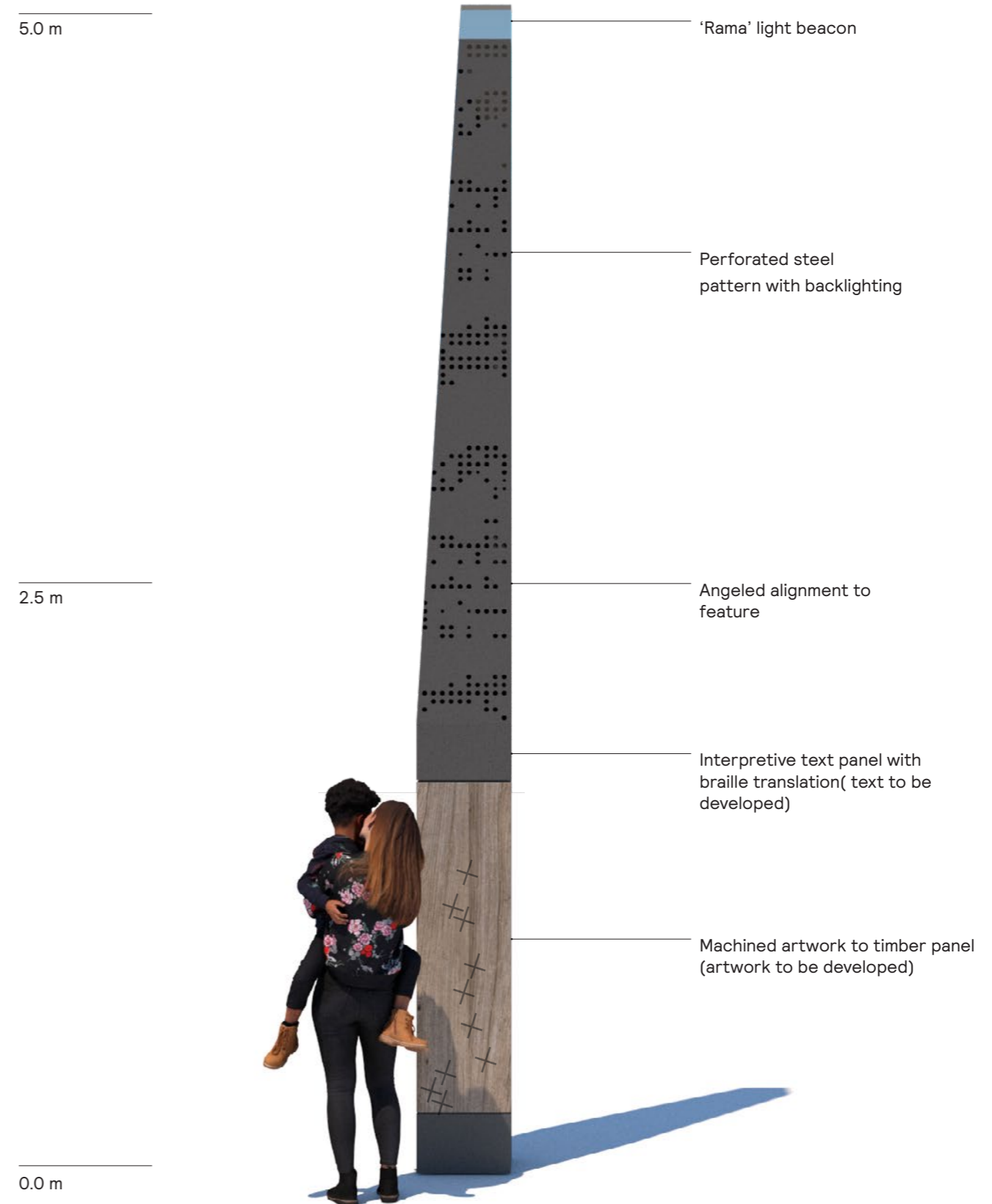
- timber artwork panels
- interpretive text
- perforated pattern with back lighting
- 'Rama' light beacon
- braille interpretation incorporated for visually impaired



**Pouwhenua\_**

5000mm H 400mm x 400mm Base

Timber and steel vertical marker and cultural artwork.





-

Notes\_

View looking east from the boardwalk adjacent the Ōrākei Road bridge.





Notes\_

View north near the roundabout end of Ōrākei Road bridge.





Notes\_

View north west at the midpoint of the boardwalk near the proposed lookout.



## 4.0 Photo-simulations







### View to the South – High Tide Photosimulation

Photomontages involved merging a digital terrain model, proposed project model, and site photo. The 3d model is photo matched into position over a site photo using the GPS location data, terrain matching, and control points using Sketchup 3d software. The works are subsequently rendered, with proposed materiality using V-Ray software to provide an accurate and scale representation of the proposed design within the existing landscape.

**Original photo:** Canon EOS 70D with 50mm lens | 29.04.2021 | Greer Carmine

**Viewpoint GPS details:** 36°51'17.2"S | 174°48'30.2"E

**Photomontage:** Adobe Photoshop 22.3.1 | Greer Carmine

**Visual simulation:** SketchUp 2021 | Vray | Adobe Photoshop CC19

| Greer Carmine

**Approximate field of view:** 50°

**Suggested viewing distance:** 300mm

### Boardwalk Design Parameters

The representation of the boardwalk structure is consistent with the May 2021 Preliminary Design for Resource Consent:

#### Boardwalk

- 1.05m deep x 4.5m wide concrete box girder.
- Deck level: 4.465m (Auckland Vertical Datum).
- Height from deck level to MHWS = 2.8m.

- Boardwalk deck material: Concrete.

- Colour: Grey.

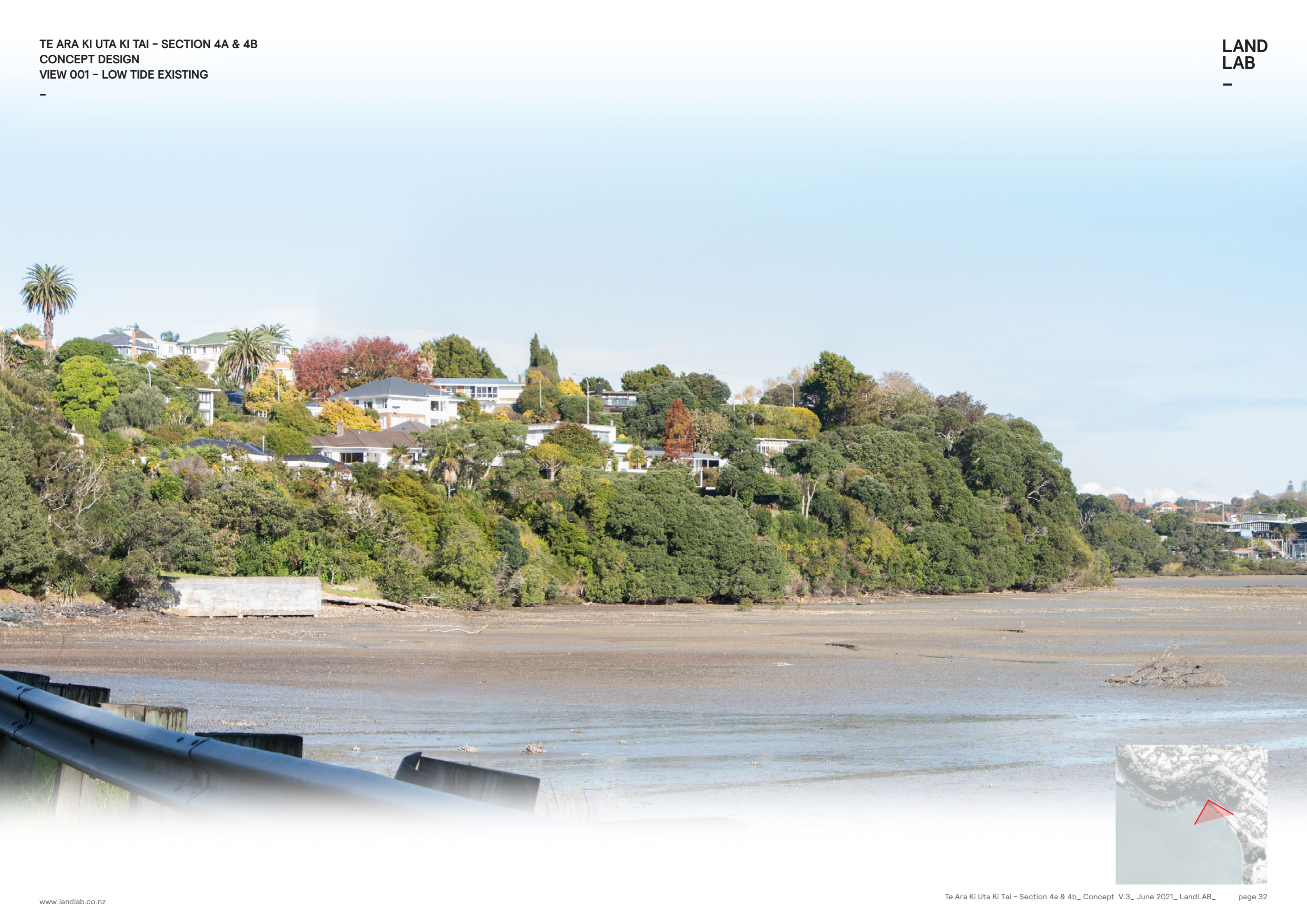
#### Piles

- Boardwalk piles: 700x700mm piles at 19.00m spacing
- Material: Exposed aggregate concrete.

#### Balustrade

- Height: 1.20m from top of deck to top of handrail.
- Material: 40x10mm vertical flats at 100mm spacings.
- Handrail: 65x35mm steel rectangular hollow section.









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**Viewpoint GPS details:** 36°51'41.1"S | 174°48'44.9"E

**Photomontage:** Adobe Photoshop 22.3.1 | Greer Carmine

**Visual simulation:** SketchUp 2021 | Vray | Adobe Photoshop CC19

| Greer Carmine

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- 1.05m deep x 4.5m wide concrete box girder.
- Deck level: 4.465m to 8.5m (Auckland Vertical Datum).
- Height from deck level to MHS = 2.8m to 4.535m.
- Boardwalk deck material: Concrete.

- Colour: Grey.

#### Piles

- Boardwalk piles: 700x700mm piles at 19.00m spacing
- Material: Exposed aggregate concrete.

#### Balustrade

- Height: 1.20m from top of deck to top of handrail.
- Material: 40x10mm vertical flats at 100mm spacings & solid teel panels with timber battens.
- Handrail: 65x35mm steel rectangular hollow section.







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#### Balustrade

- Height: 1.20m from top of deck to top of handrail.
- Material: 40x10mm vertical flats at 100mm spacings & solid teel panels with timber battens.
- Handrail: 65x35mm steel rectangular hollow section.







### View to the South – High Tide Photosimulation

Photomontages involved merging a digital terrain model, proposed project model, and site photo. The 3d model is photo matched into position over a site photo using the GPS location data, terrain matching, and control points using Sketchup 3d software. The works are subsequently rendered, with proposed materiality using V-Ray software to provide an accurate and scale representation of the proposed design within the existing landscape.

**Original photo:** Canon EOS 70D with 50mm lens | 29.04.2021 | Greer Carmine

**Viewpoint GPS details:** 36°51'43.1"S | 174°48'30.8"E

**Photomontage:** Adobe Photoshop 22.3.1 | Greer Carmine

**Visual simulation:** SketchUp 2021 | Vray | Adobe Photoshop CC19

| Greer Carmine

**Approximate field of view:** 50°

**Suggested viewing distance:** 300m

### Boardwalk Design Parameters

The representation of the boardwalk structure is consistent with the May 2021 Preliminary Design for Resource Consent:

#### Boardwalk

- 1.05m deep x 4.5m wide concrete box girder.
- Deck level: 4.465m (Auckland Vertical Datum).
- Height from deck level to MHWS = 2.8m.
- Boardwalk deck material: Concrete.

- Colour: Grey.

#### Piles

- Boardwalk piles: 700x700mm piles at 19.00m spacing
- Material: Exposed aggregate concrete.

#### Balustrade

- Height: 1.20m from top of deck to top of handrail.
- Material: 40x10mm vertical flats at 100mm spacings.
- Handrail: 65x35mm steel rectangular hollow section.









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