APPLICATION FORM FOR A RESOURCE CONSENT

PLEASE FILL IN ALL THE FIELDS

Application details

I/We Dunedin City Council AND the Department of Conservation

(must be the FULL name(s) of an individual or an entity registered with the New Zealand Companies Office. Family Trust names and unofficial trading names are not acceptable: in those situations, use the trustee(s) and director(s) names instead) hereby apply for:

✓ Land Use Consent ○ Subdivision Consent

I opt out of the fast-track consent process: ○ Yes ○ No
(only applies to controlled activities under the district plan, where an electronic address for service is provided)

Brief description of the proposed activity:

To establish a car park within the Rural Residential Zone and realign the Tunnel Beach walking track.

Have you applied for a Building Consent? ○ Yes, Building Consent Number ABA _____ ✓ No

Site location/description

I am/We are the: (✓ owner, ✓ occupier, ○ lessee, ○ prospective purchaser etc) of the site (tick one)

Street address of site: 30 Tunnel Beach Road

Legal description: Legal Description cannot fit in this space - refer page 7 of the AEE for legal description

Certificate of Title: refer page 7 of the AEE for legal description

Contact details

Name: James Taylor (○ applicant ✓ agent (tick one))

Address: Level 5, Combie Lockwood House, 229 Moray Place, Dunedin

Postcode:

Phone (daytime): 0278077937 Email: james.taylor@beca.com

Chosen contact method (this will be the first point of contact for all communications for this application)

I wish the following to be used as the address for service (tick one): ✓ Email ○ Post ○ Other:

Ownership of the site

Who is the current owner of the site? Department of Conservation

If the applicant is not the site owner, please provide the site owner's contact details:

Address:

Postcode:

Phone (daytime): Email:

Planning Application Fees Payment Details (Who are we invoicing)

THIS FORM MUST BE COMPLETED FOR ALL PLANNING APPLICATIONS THAT ATTRACT A FEE. ALL FIELDS ARE MANDATORY.

This information is required to assist us to process resource consent invoices and refunds at lodgement and the end of the process. If you have any queries about completing this form, please email ***planning@dcc.govt.nz***

Deposit Payment Payee Details:

Full Name of Deposit Payee (Person or Company): Dunedin City Council

Mailing Address of Deposit Payee (please provide PO Box number where available):

Email Address of Deposit Payee: Claire Swift

Daytime contact phone number: 021890472

Important Note: The Payee will automatically be invoiced for the deposit and/or any additional costs. Should a portion of the deposit be unspent, it will be refunded to the payee.

Fees

Council recovers all actual and reasonable costs of processing your application. Most applications require a deposit and costs above this deposit will be recovered. A current fees schedule is available on ***www.dunedin.govt.nz*** or from Planning staff. Planning staff also have information on the actual cost of applications that have been processed. This can also be viewed on the Council website.

Development contributions

Your application may also be required to pay development contributions under the Council's Development Contributions Policy. For more information please ring 477 4000 and ask to speak to the Development Contributions Officer, or email *development.contributions@dcc.govt.nz*.

Occupation of the site

Please list the full name and address of each occupier of the site:

Department of Conservation (the applicant).

Monitoring of your Resource Consent

To assist with setting a date for monitoring, please estimate the date of completion of the work for which Resource Consent is required. Your Resource Consent may be monitored for compliance with any conditions at the completion of the work. (If you do not specify an estimated time for completion, your Resource Consent, if granted, may be monitored three years from the decision date).

October 2022 (month and year)

Monitoring is an additional cost over and above consent processing. You may be charged at the time of the consent being issued or at the time monitoring occurs. Please refer to City Planning's Schedule of Fees for the current monitoring fee.

Detailed description of proposed activity

Please describe the proposed activity for the site, giving as much detail as possible. Where relevant, discuss the bulk and location of buildings, parking provision, traffic movements, manoeuvring, noise generation, signage, hours of operation, number of people on-site, number of visitors etc. Please provide proposed site plans and elevations.

Please refer Attached AEE.

Description of site and existing activity

Please describe the existing site, its size, location, orientation and slope. Describe the current usage and type of activity being carried out on the site. Where relevant, discuss the bulk and location of buildings, parking provision, traffic movements, manoeuvring, noise generation, signage, hours of operation, number of people on-site, number of visitors etc. Please also provide plans of the existing site and buildings. Photographs may help.

Please Refer Attached AEE

(Attach separate sheets if necessary)

District plan zoning

What is the District Plan zoning of the site? Rural Residential

Are there any overlaying District Plan requirements that apply to the site e.g. in a Landscape Management Area, in a Townscape or Heritage Precinct, Scheduled Buildings on-site etc? If unsure, please check with City Planning staff.

Please refer AEE.

Breaches of district plan rules

Please detail the rules that will be breached by the proposed activity on the site (if any). Also detail the degree of those breaches. In most circumstances, the only rules you need to consider are the rules from the zone in which your proposal is located. However, you need to remember to consider not just the Zone rules but also the Special Provisions rules that apply to the activity. If unsure, please check with City Planning staff or the Council website.

Please refer AEE.

Affected persons' approvals

I/We have obtained the written approval of the following people/organisations and they have signed the plans of the proposal:

Name:

Address:

Name:

Address:

Please note: You must submit the completed written approval form(s), and any plans signed by affected persons, with this application, unless it is a fully notified application in which case affected persons' approvals need not be provided with the application. If a written approval is required, but not obtained from an affected person, it is likely that the application will be fully notified or limited notified.

Assessment of Effects on Environment (AEE)

In this section you need to consider what effects your proposal will have on the environment. You should discuss all actual and potential effects on the environment arising from this proposal. The amount of detail provided must reflect the nature and scale of the development and its likely effect. i.e. small effect equals small assessment.

You can refer to the Council's relevant checklist and brochure on preparing this assessment. If needed there is the Ministry for the Environment's publication "A Guide to Preparing a Basic Assessment of Environmental Effects" available on www.mfe.govt.nz. Schedule 4 of the Resource Management Act 1991(RMA) provides some guidance as to what to include.

Please Refer attached AEE

(Attach separate sheets if necessary)

The following additional Resource Consents from the Otago Regional Council are required and have been applied for: ○ Yes ○ No

○ Water Permit ○ Discharge Permit ○ Coastal Permit ○ Land Use Consent for certain uses of lake beds and rivers ○ Not applicable

Assessment of Objectives and Policies

In this Section you need to consider and assess how your application proposal aligns with the relevant objectives and policies in the District Plan relating to your activity. If your proposal is a discretionary or non-complying activity under the District Plan more attention to the assessment will be necessary as the objectives and policies of the District Plan may not always be in support of the proposed activity.

Please refer attached AEE.

Declaration

I certify that, to the best of my knowledge and belief, the information given in this application is true and correct.

I accept that I have a legal obligation to comply with any conditions imposed on the Resource Consent should this application be approved.

Subject to my/our rights under section 357B and 358 of the RMA to object to any costs, I agree to pay all the fees and charges levied by the Dunedin City Council for processing this application, including a further account if the cost of processing the application exceeds the deposit paid.

Signature of: ○ Applicant ✓ Agent (tick one):

Date: 1 December 2021

Privacy – Local Government Official Information and Meetings Act 1987

You should be aware that this document becomes a public record once submitted. Under the above Act, anyone can request to see copies of applications lodged with the Council. The Council is obliged to make available the information requested unless there are grounds under the above Act that justify withholding it. While you may request that it be withheld, the Council will make a decision following consultation with you. If the Council decides to withhold an application, or part of it, that decision can be reviewed by the Office of the Ombudsmen.

Please advise if you consider it necessary to withhold your application, or parts of it, from any persons (including the media) to (tick those that apply):

- Avoid unreasonably prejudicing your commercial position
- Protect information you have supplied to Council in confidence
- Avoid serious offence to tikanga Māori or disclosing location of waahi tapu

What happens when further information is required?

If an application is not in the required form, or does not include adequate information, the Council may reject the application, pursuant to section 88 of the RMA. In addition (section 92 RMA) the Council can request further information from an applicant at any stage through the process where it may help to a better understanding of the nature of the activity, the effects it may have on the environment, or the ways in which adverse effects may be mitigated. The more complete the information provided with the application, the less costly and more quickly a decision will be reached.

Further assistance

Please discuss your proposal with us if you require any further help with preparing your application. The Council does provide pre-application meetings without charge to assist in understanding the issues associated with your proposal and completing your application. This service is there to help you.

Please note that we are able to provide you with planning information but we cannot prepare the application for you. You may need to discuss your application with an independent planning consultant if you need further planning advice.

City Planning Staff can be contacted as follows:

IN WRITING: Dunedin City Council, PO Box 5045, Dunedin 9054

IN PERSON: Customer Services Centre, Ground Floor, Civic Centre, 50 The Octagon

BY PHONE: (03) 477 4000

BY EMAIl: planning@dcc.govt.nz

There is also information on our website at ***www.dunedin.govt.nz***

Information requirements

- Completed and Signed Application Form
- Description of Activity and Assessment of Effects
- Site Plan, Floor Plan and Elevations (where relevant)
- Written Approvals
- Payee details
- Application fee (cash, eftpos, direct credit or credit card (surcharge may apply))
- Certificate of Title (less than 3 months old) including any relevant restrictions (such as consent notices, covenants, encumbrances, building line restrictions)
- Forms and plans and any other relevant documentation signed and dated by Affected Persons

In addition, subdivision applications also need the following information:

- Number of existing lots
- Number of proposed lots
- Total area of subdivision
- The position of all new boundaries

In order to ensure your application is not rejected or delayed through requests for further information, please make sure you have included all of the necessary information. A full list of the information required for resource consent applications is in the Information Requirements Section of the District Plan.

OFFICE USE ONLY

Has the application been completed appropriately (including necessary information)? ○ Yes ○ No

Application: ○ Received ○ Rejected

Received by: ○ Counter ○ Post ○ Courier ○ Other:

Comments:

(Include reasons for rejection and/or notes to handling officer)

Planning Officer: Date:

New Tunnel Beach Carpark

Assessment of Environmental Effects

Prepared for Dunedin City Council and the Department of Conservation

Prepared by Beca Limited

18/October/2021

Revision History

Revision Nº	Prepared By	Description	Date
A	Adam Mercieca	Draft for client review	2/10/2020
B	Adam Mercieca	Final for lodgement with Council	1/12/2020
C	James Taylor	Update to include DoC Track	18/10/2021

Document Acceptance

Action	Name	Signed	Date
Prepared by	Adam Mercieca James Taylor		18/10/2021
Reviewed by	Paul Whyte		18/10/2021
Approved by	James Taylor		18/10/2021
on behalf of	Beca Limited		

Contents

Appendices

1 Introduction

Beca Limited (Beca) has been commissioned by Dunedin City Council (DCC) to prepare a resource consent application to establish a new car park at servicing the Tunnel Beach walkway under section 9 of the Resource Management Act 1991 (RMA).

This report has been updated following receipt of the submission from an affected party received during the notification period and a joint DCC and Department of Conservation (DOC) decision to:

- include a proposed modification to the Tunnel Beach Walkway beyond the car park; and
- become joint applicants for this resource consent application (DCC was previously the sole applicant).

Paragraphs that have been modified and new sections in this report are shown in red text.

1.1 Overview

Tunnel Beach is a significant tourism destination for Dunedin City as well as a local recreation site. The site is located on the coast, approximately eight minutes' drive from the Dunedin City centre. The walking track provides visitors and residents with access to a sought-after coastal landscape of high scenic value.

The current car parking provision is situated within DCC managed road reserve within Tunnel Beach Road and in practice accommodates 18 small vehicles plus an area occasionally used as a bus park. However, at peak times the car park is overcrowded and overflows along the road verge. This is contributing to significant traffic congestion and health and safety issues along Tunnel Beach Road.

As a result, DCC is seeking to remove on street parking from the road reserve and establish a new car park off road. The proposed car park will include, general car parks, oversized vehicle parking, a bus/coach drop off, motorbike and cycle parking and ablution facilities, a vendor trading area and associated amenities (bins, seating).

In conjunction with the relocation of the carpark from the Road Reserve, DOC also proposes to modify the Tunnel Beach Walkway to provide a more appropriate grade for track users and establish additional viewing platforms to improve the user experience and reduce risk to users and the environment.

1.2 Structure of the Report

This report has been prepared in accordance with the requirements of Section 88 and the Fourth Schedule of RMA and is intended to provide the information necessary for an understanding of the proposal and any actual and potential effects it may have on the environment. The application contains the following information:

- A general description of the proposal, site and surrounding environment;
- A description of the proposed works;
- An assessment of the potential and actual effects on the environment;
- Outcomes from consultation and engagement;
- An analysis of the provisions of the RMA and the relevant statutory planning documents; and
- An overall summary and conclusion of the proposal.

This assessment of environmental effects has been prepared in respect of, and forms an integral part of:

- A **Discretionary activity consent application** in accordance with the Dunedin City Proposed 2GP.

A Certificate of Title for the site is attached as **Appendix A**, design drawings are contained in **Appendix B**, a Landscape and Visual Assessment attached as **Appendix C**, a Traffic Assessment as **Appendix D**, a Noise Assessment provided in **Appendix E** and site photos in **Appendix F**. Further, Beca's stormwater

assessment in attached as **Appendix G**, Aukaha's feedback as **Appendix H**, the proposed Tunnel Beach Car Park Operational Plan as **Appendix I** and written approvals as **Appendix J.**

2 Environment Description

2.1 Project Area

As the proposal seeks to remove on street parking and create a new car park, the project area encompasses the carriageway at the end of Tunnel Beach Road and 30 Tunnel Beach Road which contains the existing walking track and area where the proposed car park will be located.

The Tunnel Beach walk (1hr return) provides spectacular coastal views including a natural archway / land bridge alongside a buttress like headland covered in coastal turf. The walk extends through an excavated tunnel to a secluded beach that was said to be built in the 1870s at the request of John Cargill who had it built as a gift for his daughters.

Recently, the walk has been increasing in popularity and since installing a visitor counter, DOC has reported a rapid growth in visitor numbers from around 38,000 visits for the year ending 30 June 2014 up to 110,000 visits for the year ending 30 June 2019.

2.2 Car Park Capacity

Presently, the Tunnel Beach Road carriageway has 18 demarcated car park spaces and 1 parking bay for larger vehicles/tour buses. However, increased visitor numbers over the years have placed unsustainable pressure on this parking, as evidenced in site photos contained in **Appendix F**. Indicative layout calculations shown in Figure a below show up to 52 cars could park in part of the carriageway at a time.

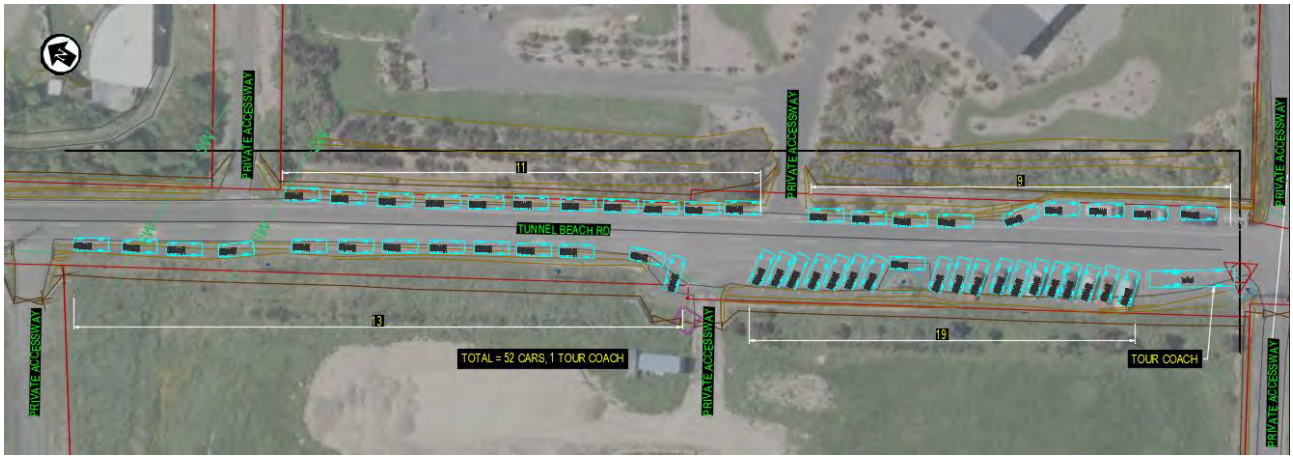


Figure a: Indicative existing parking along Tunnel Beach Road carriageway during peak times showing 52 car parks plus bus bay.

The ongoing issues observed by and raised to DCC include:

- Little room for light vehicle manoeuvring and no room for buses or oversized vehicles manoeuvre;
- Pedestrians walk along the road and through the parked cars to the track entrance, presenting vehicle safety issues;
- When the car park is at capacity visitors will park on the main road, this reduces visibility, road width and residents complain of access to and from their property;
- There is not enough parking space to accommodate current demand; and
- Anti-social behaviour including rubbish, public defecation and drinking.

This situation is shown from site photos attached as **Appendix F**.

2.3 Site Description

2.3.1 Car Park Site

The site where the proposed car park is to be located is at the southern end of Tunnel Beach Road, south of Blackhead Road where the undulating paddocks and residential lifestyle blocks of the Rural Residential 1 zone meet the steep coastline. The proposed carpark site occupies the northern corner of number 30 Tunnel Beach Road (Figure 1), a parcel of land owned by DOC, and of which the existing tunnel beach walking track traverses. It is legally described as Lot 1 DP 314013 Pt Secs 145 Green Island Bush SD Sec 163 Pt Lot 146 Green Island SD Pt Secs 56 57 58 Ocean Beach SD **(Appendix A)** and is classified as a Recreation Reserve under the Reserves Act 1977 to support the recreational activities occurring in the surrounding area. The site is classified a Reserve under the Reserves Act.

The site sits between existing rural lifestyle blocks on two sides, residential driveway access to the north west and the steep cliffs and ocean to the southeast. Its gradient is fairly flat to the north east but falls steeply away to the coast to the south. The site is covered predominantly by grass which is being overtaken with gorse in places and a slight valley is legible through the centre of the carpark site, directing stormwater downhill and over the cliffs below. There are several stands of mature Macrocarpa trees south east of the proposed carpark site which demarcate a former dwelling site.

DOC use the site for maintenance of the tunnel beach track. This includes delivery of aggregate via large vehicles on occasion and local spreading with mechanical wheelbarrows. Two portaloos are located on the site for public use.

The nearby coastal landscape is dramatic with rolling hills giving way to exposed cliffs and the Pacific Ocean beyond. The ocean is clearly visible from the carpark site with wide expansive views focused south east. The coastal features of the landscape increase in prominence moving down and in the direction of the ocean as the presence of rural activities diminish. These characteristics are represented in the Outstanding Natural Feature and High Natural Coastal Character overlays subject to the southern extent of the site. However, the northern section of the site, where development is proposed, is not subject to any scheduled items, overlays or mapped areas in the Proposed 2GP.

The surrounding local landscape consists of grass livestock paddocks, agriculture, accommodation, rural living activities and coastal DOC lands. Elements contributing to rural amenity landscape include amenity property boundary planting, hedging and shelterbelts, powerlines, fencing, large dwellings and utility buildings.

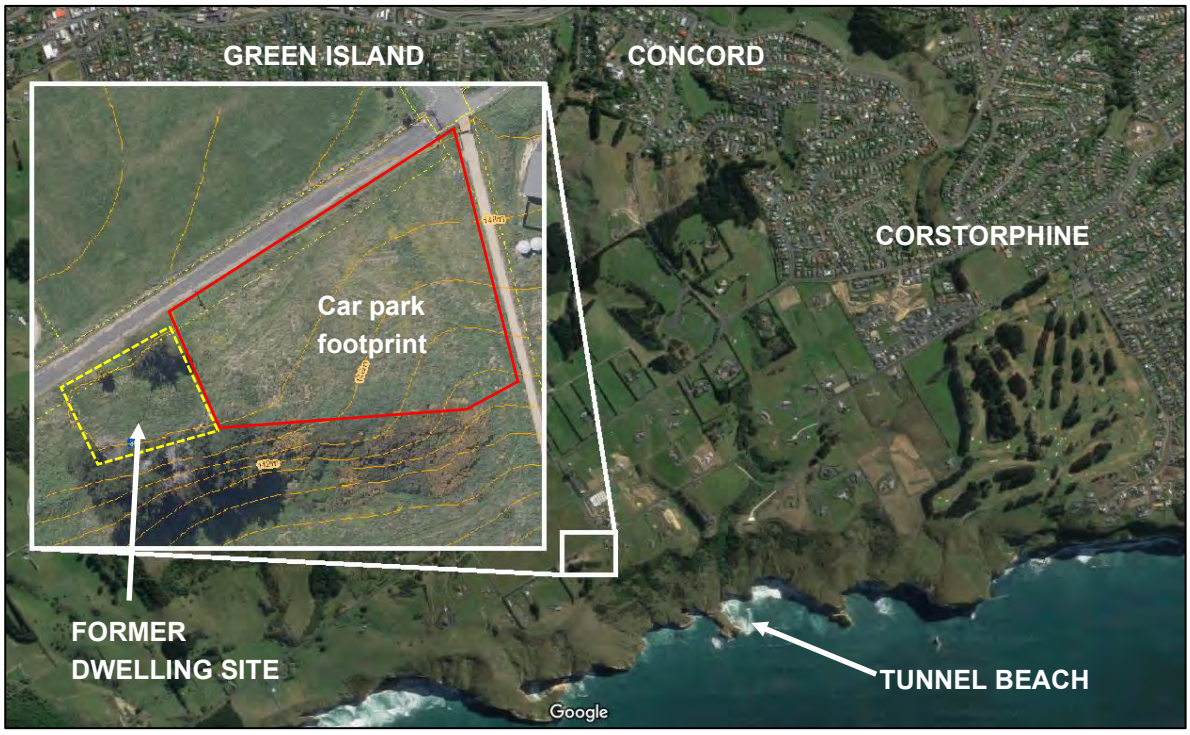


Figure 1: Site Location (Source: Google Maps and DCC GIS Webmaps)

2.3.2 Tunnel Beach Walkway Site

The walkway site has the same legal description as the carpark site plus the adjoining block to the south west (described in Table 3.1 below) and is a reserve under the Reserves Act 1977. The existing walkway alignment is located within an easement that remains in favour of the Crown. This easement enabled the use of the track prior to the subsequent purchase of the site by the Crown and its establishment as a Reserve.

The site includes extensive coastal herbfield ecosystems, and sites of significance to mana whenua. The site was the early coastal sea route used by mana whenua for centuries. The site has an uninterrupted view along the coast

Given the steep topography, all but the very upper section of the site is hidden from adjoining dwellings or other public places.

2.4 Otago Conservation Management Strategy 2016

The Otago Conservation Management Strategy (OCMS) was published by the Department of Conservation in 2016. Section 1.5 of the OCMS outlines national and regional conservation objectives be delivered by management of conservation resources within Otago over the next 10 years.

Sub-section 1.5.3 of the OCMS focusses on recreation. Under 1.5.3.1 there is an objective to "*understand demand for outdoor recreation and provide recreation opportunities where:*

a. the recreation opportunities are consistent with:

i. the protection of indigenous natural, historic and cultural resources; and

ii. the purpose for which the lands and waters concerned are held; and

b. demand is evident; and

c. demand is expected to be sustained.

Further under 1.5.3.12 there is an objective to encourage recreation opportunities on public conservation lands and waters that are consistent with outcomes for a Place, that meet a range of recreational objectives, and that *"are supported or enabled by facilities that are able to be maintained into the future."*

Appendix 1 of the OCMS provides a table titled "*Work or activities of the Department of Conservation that may meet the requirements of section 4(3) of the Resource Management Act 1991 for exemption from land use consents in Otago".* The table lists a range of areas of work/activities including:

- track upgrades and realignments to take better advantage of grades; and
- improvements to tracks to management actions to mitigate any environmental impact, health and safety concern or visitor risk

Under the subheading *"Tracks, roads and car-parking areas for visitor purposes", "Tunnel Beach and the coast South of Dunedin"* is listed as a location.

Given that the OCMS is directly relevant to the site and activity covered by this application, it is a relevant document which can be had regard to by the consent authority under s104(1)(c) of the RMA.

2.5 Existing Legally Established Activity (Tunnel Beach Walkway)

The current walkway alignment is within an easement in favour of the Crown *"subject to the purposes of the New Zealand Walkways Act 1975".* The purpose of this Act is for the ability of all the community to have unrestricted use of the walkway. Specifically, s3 of this Act States:

3. General purpose of Act-

(1) It is hereby declared that the provisions of this Act shall have the aim of establishing walking tracks over public and private land so that the people of New Zealand shall have safe, unimpeded foot access to the countryside for the benefit of physical recreation as well as for the enjoyment of the outdoor environment and the natural and pastoral beauty and historical and cultural qualities of the areas they pass through.

(2) It is hereby further declared that, having regard to the general aim specified in subsection (1) of this section, walkways shall be so established and administered that the rights of property owners, both public and private, shall be fully respected and that the rights of public access created by this Act shall be for walking purposes only unless otherwise provided for in respect of any particular walkway or part of a walkway.

S23 of the Act States

Rights of public in respect of walkways-

Subject to the provisions of this Act and of any regulations and bylaws for the time being in force under this Act, and subject to any conditions specified under section 22 (6) of this Act, every member of the public may without charge at any time pass or rep ass on foot over any walkway.

The easement documents also record that in 1989 the Silverpeaks County Council declared the easement area a Walkway pursuant to s348 of the Local Government Act 1974, thus legally establishing a walkway without limitation on persons or consequentially, numbers of persons, for the unimpeded foot access to the countryside for the people of New Zealand.

Figure 2a: Tunnel Beach Track and surrounds

2.6 Limitations of existing Tunnel Beach Walkway

Due to the steep grade of the track and lack of viewing platform and other basic visitor facilities the current walking track and facilities do not provide an opportunity to adequately mitigate visitor risks, or protect the coastal herb field ecosystem present on the tunnel beach headland. The track is not adequate for the two visitor groups who use the site; being the day visitor and short stop traveller (Tracks and Outdoor visitor Structures SNZ HB 8630:2004).

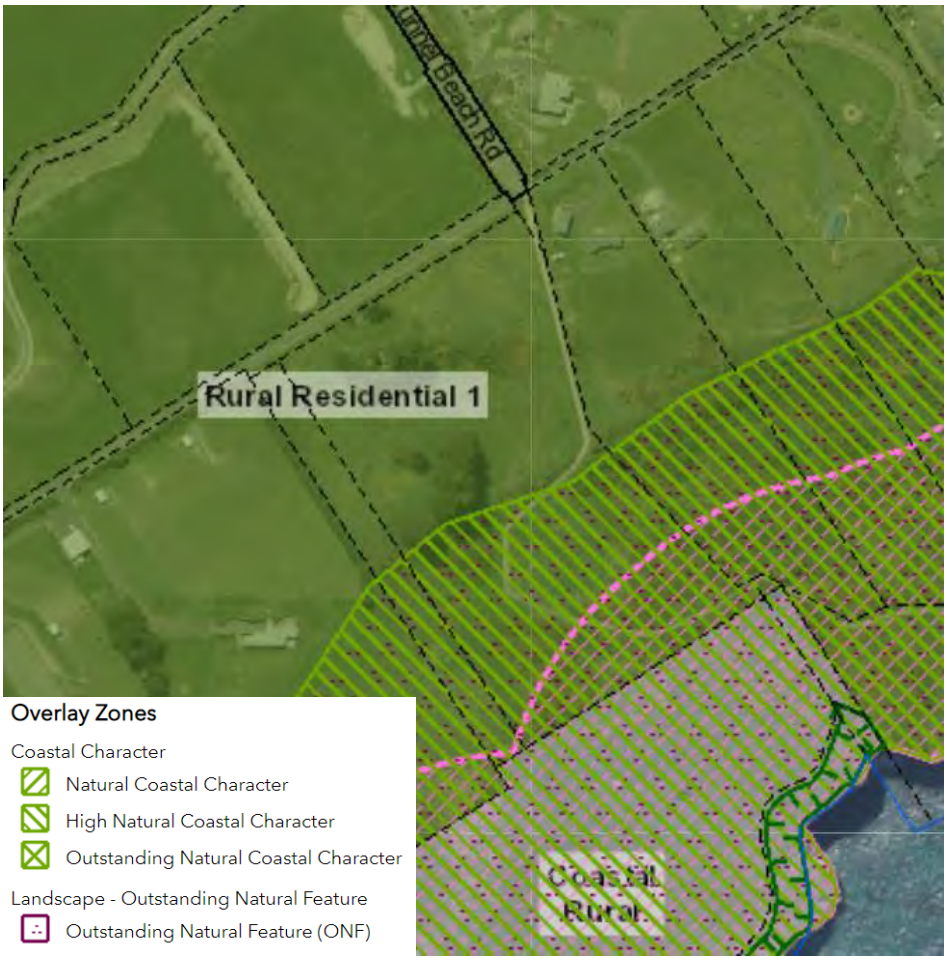
In order for DOC to continue exercising its functions under the Conservation Act 1987 interventions are required to the existing track, particularly in the context of demand from up to 110,000 visits per year and the associated requirements of the OCMS to provide recreational opportunities to cater for this demand.

2.7 Dunedin City Council Proposed 2GP

The site is subject to the Proposed 2GP and therefore, the following zones and overlays:

Table 3.1: Site information summary for 30 Tunnel Beach Road

Feature	Site Information
Address	30 & 32 Tunnel Beach Road, Blackhead
Legal Description	Lot 1 DP 314013 Pt Secs 145 Green Island Bush SD Sec 163 Pt Lot 146 Green Island SD Pt Secs 56 57 58 Ocean Beach SD; and SEC 3 BLK XIII SO 4104 DUNEDIN & EAST TAIERI SD, SEC 5 BLK XIII SO 21352 DUNEDIN & EAST TAIERI SD, SEC 6 BLK XIII SO 21352 DUNEDIN & EAST TAIERI SD
Property area	7.81ha; and

Feature	Site Information
	3.9ha
Land administered by	Department of Conservation
Zone	Rural Residential 1 and Coastal Rural
Relevant Maps	
Overlays	High Natural Coastal Character (Tunnel Beach Section 10, Appendix A5.2.5) Outstanding Natural Feature (Tunnel Beach Section 10, Appendix A3.1.20)
Mapped Area	Archaeological Alert Layer
Adjoining Zoning	North: Tunnel Beach Road (Local Road) and Rural Residential East: Rural Residential West: Rural Residential

The 2GP specifically identifies the following values (in appendices 3, 4 and 5) for the Tunnel Beach Area:

Outstanding Natural Feature Values:

- Sandstone cliffs with sea stacks, an arch and coves with narrow sandy beaches.
- Small patches of regenerating indigenous vegetation. Salt-tolerant herb field on headland.
- Fairy prion nest on cliffs.
- The sandstone cliffs and their convolutions plus the surf provide a high degree of tumultuous wildness. Very high scenic quality.

Landscape Values:

The following features and characteristics have been identified as important to protect:

- Natural science values:
- Tunnel Beach sandstone cliffs are listed in the Inventory of important geological sites and landforms in the Otago Region. This is a fine example of sandstone cliffs. This is a highly legible landscape expressive of its geological formation and erosive marine processes.
- Rare salt tolerant herb vegetation at Tunnel Beach.

Cultural/historic values:

- The tunnel at Tunnel Beach was cut by John Cargill (son of Captain William Cargill) for access to the beach for his family.
- Values of significance to Manawhenua. See Appendix A4.46.
- Aesthetic/amenity values:
- Naturalness is high - modified to an extent by exotic shrub species on the slopes above the cliffs.
- Minimal influence of buildings, structures or earthworks which create high wild and scenic values. These are enhanced by the dramatic coastal landforms.

Manawhenua Values:

Aukaha have advised the following:

The whole of the Otago coastline / Te Tai-o-Ārai-te-uru of Te Waipounamu and the wider landscape in the area of Tunnel Beach has many significant sites/landscapes of past activities and traditions of mana whenua.

Te Tai-o-Ārai-te-uru / Otago Coastline – Our tupuna were great ocean travellers. The tempestuous nature of the coastal waters off Otago are a constant reminder of the exploits of our voyaging tupuna and their illustrious waka.

The coastal waters and processes were integral to the way of life out tupuna enjoyed. Our belief system binds and identifies kinships across Moananui-a-Kiwa, reinforces the centrality of Takaroa to those beliefs and influences the way we relate to and manage our marine resources now and in the future.

The marine environment is a moving force, a reminder of the power of Takaroa. The interconnection of the land and sea environments is consistent with the Ki Uta Ki Tai philosophy. The coastal waters are a receiving environment for freshwater, gravels and sediment from the terrestrial landscape (ki uta) which are important to maintain natural process and the domain of Takaroa.

The coast of Otago is named "Te Tai o Arai-te-uru", after the ancient waka Atua, famed for its cargo of kumara and taro calabashes and the many illustrious passengers on board. Arai-te-uru foundered south of Moeraki at the mouth of Waihemo.

The wreckage and survivors of this waka are marked by numerous landmarks almost for the length of the Otago Coast. The boulders on Moeraki coast (Kai Hinaki) and the Moeraki pebbles are all associated with the cargo of gourds, kumara and taro seeds which were spilled when the Arai Te Uru foundered.

3 Car Park Solution Alternatives

An options assessment was undertaken to determine the approach to providing parking at Tunnel Beach. These options included:

Option 1 – Status quo/do nothing

Option 2 – Car park with one-way entry/exit

Option 3 – Car park with dual entry/exit

3.1 Option 1 – Do nothing

This option was to retain the existing car parking situation with minimal mitigation or intervention in adverse effects. The result of this option was that no additional parking, manoeuvring areas, signage, toilet facilities or seating would be provided. It is considered that it was likely that through this option the ongoing issues identified by DOC, DCC and neighbouring landowners would not be addressed, and the Tunnel Beach environment would be further degraded by unmanaged and unmitigated adverse effects.

This option was not endorsed by DOC, DCC or the potentially affected neighbouring properties who attended a public meeting on the subject on 13 August 2020 which use Tunnel Beach Road as access to their residential dwellings.

3.2 Option 2 – One-way entry/exit

This option sought to remove street parking on Tunnel Beach Road by providing a dedicated car park for the users of the Tunnel Beach walking track. The car park was proposed to be a one-way entry/exit configuration with partially sealed gravel and asphalt. It was proposed to provide 57 car parks, 2 accessible parks and 4 oversized parks in addition to a drop off point for tour buses. In addition, the car park would contain two self-contained toilets, a concession area and landscaping. Figure 2 below provides the proposed car park layout.

The car park was proposed to be located in the north eastern corner of 30 Tunnel Beach Road but would not encroach into the private access easement to the north which services some seven properties to the west. Due to this configuration and topography constraints, the car park was required to extend west with a gravel area and small landscaping bund for screening.

This option was discounted due to a one-way system being potentially confusing and neighbouring landowners being concerned about noise effects associated with the car park.

3.3 Option 3 – Dual entry/exit

Option 3 sought generally the same outcomes as Option 2 in seeking to remove street parking on Tunnel Beach Road and provide a new dedicated car park. However, this option also provided for a dual vehicle entry/exit and a more ‘compact’ form. This compact form was sought to reduce potential noise effects for adjoining neighbours at 40 Tunnel Beach Road that may have resulted from Option 2. Included in this option was an earth bund for this reason. As the car park in Option 3 is required to be located further downslope, a larger batter is required. A significant amount of amenity planting on this batter slope is proposed and discussed further in this report and accompanying Landscape and Visual Assessment **(Appendix C)**.

The design features of this car park are identified in Figure 3 below, an in more detail on design drawing 3336298-CA-010 contained in **Appendix B**. This option is further explained in detail in Section 4 of this AEE along with the relationship to the design philosophy.

Figure 3: Option 2 proposed layout showing gravel parking to the west, one-way entry/exit and no encroachment on access easement to the north.

Figure 4: Option 3 showing two-way entrance and encroachment into access easement to the north

4 Description of Proposal

4.1 Walking Track Modification

DOC has assessed that the Tunnel Beach track is not adequate for the two visitor groups who use the site; being the day visitor and short stop traveller (Tracks and Outdoor visitor Structures SNZ HB 8630:2004). DOC therefore concludes that the track in its current form does not connect people from these groups using the track to the unique natural, cultural and historic heritage of Tunnel Beach and the surrounding coastal zone.

In order to perform its functions under the Conservation Act 1987, DOC is seeking to:

- re-align the walking track to obtain a more suitable grade (<10 degrees) for the two identified visitor groups
- establish new viewpoints;
- install seating;
- install interpretation panels; and
- provide access to the coastal zone and viewshafts to multiple prominent features of cultural significance.

The walkway modification proposals are shown in drawings located at **Appendix B**. The drawings detail the establishment of multiple viewpoints where people can experience Tunnel Beach and the surrounding coastal zone, with an experience length and comfort more suited to the user group, will encourage people to stop earlier in the track and still have an adequate experience. This will increase safety and protect the coastal herb field by reducing the number of people who venture all the way to the headland; the herb field and the significant fall hazard present there. This approach has been utilised at Orau/Sandfly Bay on the Otago Peninsula, where it was effective at reducing the number of people continuing all the way to the beach and Hoiho habitat by up to 60%. For people who do continue on, having already experienced high quality viewing points may also reduce the likelihood that they will seek out risky viewing locations at the headland.

The design philosophy for the walking track was developed to focus on public health and safety (visitor risk), the environment, the public benefit of connection to New Zealand's natural, cultural and historic heritage by storytelling, and increased ease and availability of access to this iconic site and the surrounding coastal zone.

This philosophy has led to a a proposed realigned walking track and viewpoints with a suitable gradient, width and surface for the identified visitor group. The track has been designed to follow the contour of the land, take advantage of existing farm tracks and flat areas, to sit into the landscape and remains out of sight of the adjacent dwellings.

The proposal is that the track is installed to be within 30m of the location shown on the drawings, this provides for onsite minor modifications resulting from unexpected ground conditions and provides for the flexibility that is necessary for installing walkways of this nature.

Additionally, the planting shown in the walkway drawings is also indicative, the final species and locations will be selected as part of DOC exercising its functions under the Conservation Act 1987.

4.2 Viewing areas

The establishment of viewing areas is part of the whole of site approach to managing health and safety concerns (visitor risk) and to mitigate environmental impacts. The design philosophy for the viewing areas is to utilise muted tones, cultural elements and storytelling material, create a flat gravelled area, and seating. At the first two viewing areas subtle barriers of narrow-gauge steel, with wide spans brushed to reduce

reflectivity and a timber railing will be used to provide a formalised viewing area with a measure of safety and behaviour management.

For the singular viewing area where there are significant falls adjacent, a timber or steel barrier with narrower spacings will be used to deliver the safety level required by SNZ HB 8630:2004 Tracks and outdoor visitor structures.

The viewing areas are proposed to be located so that they do not have line of sight to or from any adjoining residential dwelling or other sensitive activity.

4.2.1 Viewing Platform 1

VP1 provides an early view of the Tunnel Beach headland and adjacent coastal zone, opportunities for people to take photographs with the view, cultural elements, storytelling infrastructure such as interpretation panels, seating and a formalised gravel area near the barrier, with a wider mown area for amenity.

4.2.2 Viewing Platform 2

VP2 provides a viewing rail of the same design as the first viewing area, also preventing visitors from wandering south. This location will also include seating, cultural elements and storytelling infrastructure including interpretation panels. This viewing area provides sweeping views of the coast, including views to numerous sites of significance to mana whenua along Dunedin's southern coast and the associated storytelling opportunities.

4.2.3 Viewing Platform 2b

VP2b provides a spectacular view of the promontory to the south of Tunnel Beach headland, with more limited cultural elements and storytelling, this area has a safety barrier to meet type A specification, per SNZ HB 8630:2004 Tracks and outdoor visitor structures, and is connected to VP2 by either a type B safety barrier or similar, preventing access to dangerous cliff edges and to the south west. Location is subject to geotechnical engineer advice but would be within 5m of the marked location to obtain the view.

4.3 Other Proposed Track Features

4.3.1 Planting and track remediation throughout the walkway

Where the existing alignment of the track will no longer be utilised, the alignment will be remediated through a combination of gravel removal, scarification, sown grass and planting as identified in the plan. Planting will be used at areas of likely desire lines and where the new alignment meets the old alignment to discourage continued use.

4.3.2 Planting locations along the walkway

The planting lists and locations identified in the plans are not final. The final species list and locations will be chosen as a function of DOC exercising its function under the Conservation Act 1987 using appropriate indigenous species identified by a DOC ecologist and mana whenua species expert and subject to approval of mana whenua.

4.3.3 Storytelling and mana whenua

DOC has had an ongoing dialogue with the Ōtākou Runaka about this project since its inception, and is working closely with Aukaha to weave mana whenua storytelling throughout the site. At a minimum mana whenua storytelling will be installed at interpretation panels as part of the project. Storytelling material will also highlight the coastal herb field ecosystem and European heritage of the site. The final solution

incorporating these elements will be selected by DOC exercising its function under the Conservation Act 1987.

4.4 Track Construction

The track will be constructed progressively with earthwork and track formation occurring in parallel. This will result is minimising the amount of area as open earthworks. Due to the small scale area and predominance of grass land around the open site, silt fencing will not be required. Details of the track formation are located in the drawing sin Appendix B and as shown for a typical track section in Figure 3a below.

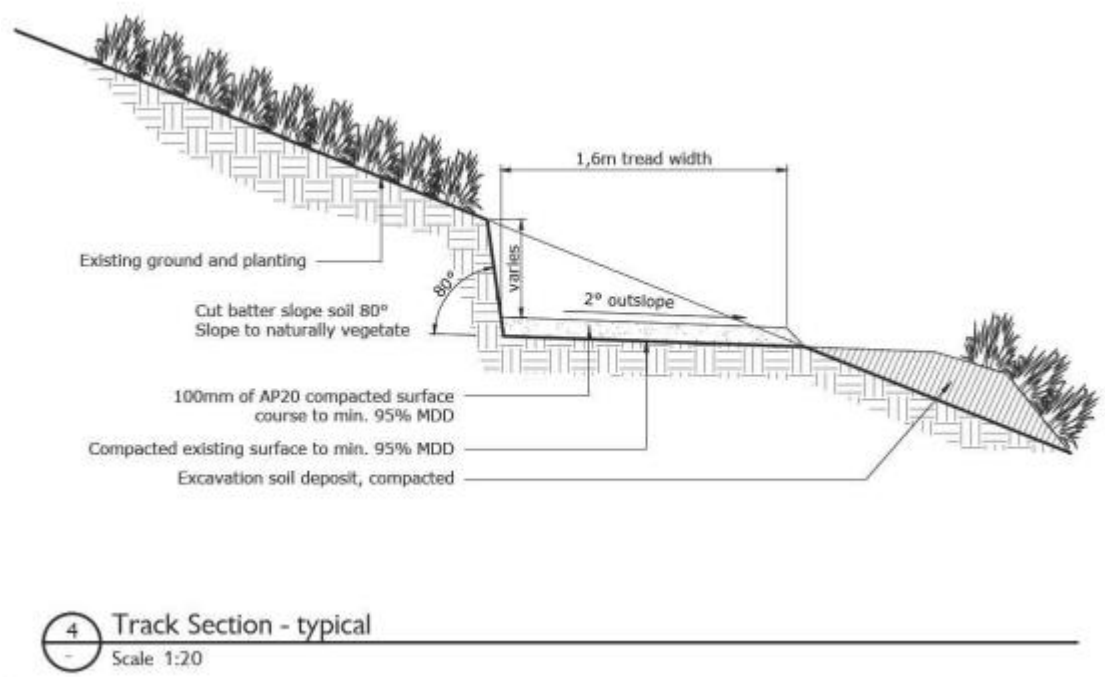


Figure 5a: showing typical track section.

4.5 Car Park Design Philosophy

The design philosophy for the proposed car park was developed in the start-up phase of the project in collaboration with DCC and DOC to focus on the management of actual and potential adverse effects on transportation, public health and the environment.

The philosophy sought to create an unobtrusive car park facility within a rural residential character setting while being sympathetic to the prominent landscape and associated visual values of the environment. In addition, the philosophy sought to make the surrounding environment safer and more enjoyable for residential and visitors through avoiding public health concerns, mitigating environmental degradation and managing transportation effects.

It was also recognised early on from a review of the Dunedin City Council Proposed 2GP that the objectives and policies related to ‘Community and leisure - large scale’ activities overall seek that adverse effects be avoided (as opposed to remedied or mitigated). As such, designers have been briefed to avoid potential effects on reverse sensitivity, noise, amenity and character of the environment. This philosophy has been taken into account when designing the proposed car park with a mind turned to the fact a legally established Community and leisure - large scale’ activity is already undertaken on the site but is not managed effectively.

4.6 Car Park Capacity

Presently, the Tunnel Beach Road carriageway has 18 demarcated car park spaces and 1 parking bay for larger vehicles/tour buses. However, increased visitor numbers over the years have placed unsustainable pressure on this parking, as evidenced in site photos contained in **Appendix F**. Indicative layout calculations shown in Figure 4 below show up to 52 cars could park on the carriageway at a time.

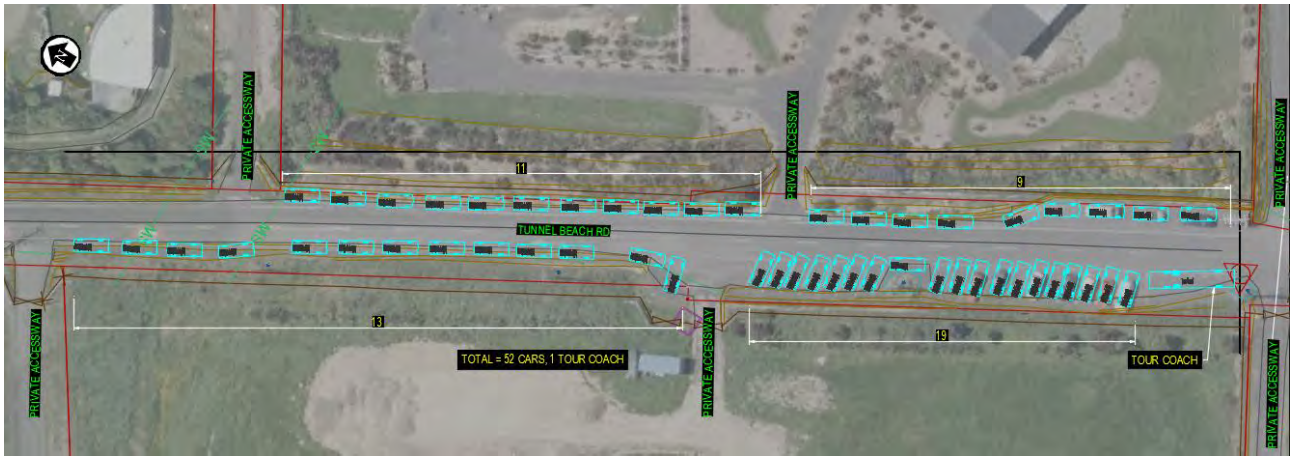


Figure 6: Indicative existing parking along Tunnel Beach Road carriageway during peak times showing 52 car parks plus bus bay.

This situation has created an unsustainable, undesirable and hazardous environment which DCC and DOC are seeking to both actively manage and where possible reduce demand on the infrastructure. The first step in this process is providing a dedicated car park capable of providing facilities for a comparable number of vehicles (and associated pedestrian amenities) outside of the Tunnel Beach Road carriageway. This will be done in conjunction with removing the ability to park on Tunnel Beach Road and thus remove the potential for the above existing situation to continue to occur.

In terms of operational requirements, the car park has been developed to provide sufficient parking space to meet demand for the next 20 years. The chip sealed car park is proposed to include:

- 58 standard car parks;
- 4 oversized car parks;
- 2 accessible car parks;
- 1 vendor trading/concession area;
- A drop off point for tour buses;
- A parking bay for motorbikes, bicycles and e-Bikes;
- A two stall toilet/ablution block; and
- Associated amenities including seating, rubbish bins, information boards and DOC signage.

The design drawings contained in **Appendix B** show the proposed layout of the car park, allowing for compliant access, egress and manoeuvring of vehicles using the car parking, including oversized vehicles as further explained below. Standard car parks are to measure 5.2m in length and 2.5m in width. Where these parks are located on top of retaining walls (maximum of 1m high), wheel stops will be installed (drawing **3336298-CA-010**). The four oversized parks will be centrally located and double the size of standard parks measuring approximately 10.4m x 6m. The two accessibility parks will be located at the southern extent of the car park next to the amenity area which hosts the concession area, toilets and proposed track entrance.

4.7 Car Park Earthworks

The works will be delivered utilising conventional construction methods and will be subject to a Construction Management Plan that will document dust, erosion and sediment control measures to be implemented to manage these aspects.

4.8 Traffic Movements and Manoeuvring

The removal of car parking space on Tunnel Beach Road will provide for a more uncluttered carriageway and will result in greater sightlines at the intersection at the end of the road where the proposed car park is to be located.

The removal of these on-street car parks will also allow for easier vehicle and truck manoeuvring onto the private accessways to the south and north at the end of Tunnel Beach Road. This ability for easier manoeuvring was a key issue raised in stakeholder consultation with the properties that use these accessways. The tracking curves for this manoeuvring are shown on drawings **3336298-CA-K201** through **3336298-CA-K203** in **Appendix B.**

Further, drawing **3336298-CA-030** in **Appendix B** shows sufficient manoeuvring within the car park for both small, medium and large (bus) vehicles. Specifically, provision is made for tour buses to enter the car park, drop off passengers and exit the car park in a forward manner without the requirement of multiple point turns. In addition provision is made for a 500mm separation between a potential parked bus and the tracking from a vehicle manoeuvring past the parked bus. This retains the ability of the car park layout to reticulate traffic while a bus is in the car park.

4.9 Management of Tunnel Beach Road

To discourage parking on Tunnel Beach Road, and maintain an uncluttered carriageway, the existing parking will be removed and replaced with a 2m wide landscaped area in front of a 2m wide footpath (design drawing **3336298-CA-K007, Appendix B**). It is anticipated this footpath will link into other pedestrian networks in the future.

In addition, ‘no parking’ lines will be installed on the carriageway as a hard measure and in order to allow DCC to legally enforce the prohibition of parking on the carriageway at the end of Tunnel Beach Road. These no parking zones will also have the added benefit of keeping the private accessway manoeuvring areas free of obstacles.

4.10 Car Park Design and Surrounding Landscape

As identified in the Design Philosophy, the car park has been designed to be unobtrusive and to avoid bulk, location and amenity effects on the surrounding environment. In order to achieve this, earthworks, landscaping and extensive amenity planting is proposed.

Earthworks

Where possible, the design has sought to utilise the existing slope of the land and to achieve an equilibrium between cut and fill while providing for compliant car park grades and manoeuvring areas. As a result, the design has resulted in a form of terraced car park set into the slope (see drawing **3336298-CA-015**). These cross sections show the car park will be set below the private accessway to the north by a landscaped area and an approximately 1m high retaining wall. This will have the result of partially screening the car park from the accessway and reducing the bulk effects on the surrounding development by insetting the car park into the landscape

In total, some 3,920m^3 of cut is proposed and 2,730m^3 fill is proposed. The majority of this fill will be used at the southern extent of the car park and to form an earth bund to the west of the site to create an acoustic

and visual mitigation barrier. All earthworks will be managed through appropriate erosion and sediment controls to mitigate the discharge of sediment downslope towards the ocean. Considering the nearby Wāhi Tupuna mapped area and feedback from Aukaha, Heritage New Zealand's Archaeological Authority Protocols will be adhered to throughout construction works.

Overall, the earthworks seek to set the car park into the existing landform where possible to reduce bulk and location effects and reuse cut spoil where appropriate without needlessly recontouring the land.

Landscaping

The design philosophy requires that adverse effects on rural amenity be avoided and where not possible, mitigated. Given the introduction of a large, impervious area into a coastal environment, extensive landscaping is proposed within the car park to soften the form against the surrounding environment. The Landscape and Visual Assessment provides an extensive schedule of 2747m^2 of native planting, as identified on drawing **3336298-AL-011**. The schedule of planting is located at **336298-AL-040.**

Screening mixes comprising largely of native grass and small/medium shrub species will be planted around the car park, predominantly to the north on top of the retaining wall bordering the private accessway and to the east bordering a nearby residential dwelling. The species used are identified in the planting schedule contained in drawing **336298-AL-040, Appendix C** and will allow for passive surveillance of the car park.

Throughout the car park itself and the batter slope to the south, amenity planting is proposed. These species are largely comprised of grass species suited to the coastal environment. This type of planting, particularly within the car park will maintain crucial sightlines for vehicles, pedestrians and passive surveillance.

Along the western extent of the car park and the earth bund, a revegetation mix is proposed. This mix will comprise of larger species including NZ Cabbage Tree *(ordyline australis)*, Shrubby tororaro *(muehlenbeckia astonii)*, NZ Flax *(phormium tenax)*, Mingimingi *(coprosma propinqua)*, Mousehole tree *(myoporum laetum)* and Kohuhu *(pittosporum tenuifolium)*. These larger species are sought in this area to provide meaningful visual and acoustic screening from the property at 40 Tunnel Beach Road.

4.11 Amenity Area

An amenity area is proposed at the bottom of the car park area to the south of the area of works. This amenity area will be flat and will contain by two disabled car parks flanked by a concession area to the west and toilet block to the east. Seating and rubbish bins will also be provided in this location which will double as the new entrance to the Tunnel Beach walkway after future track realignment (not contained as part of this project).

This location has been strategically chosen to contain the amenity facilities as it the entrance/terminus point for the walkway, is flat and the walkways within the car park will lead to it. In addition, cycle and motorbike parking will be located opposite.

Four plastic tanks will be located adjacent to the toilet block within the landscaping adjoining the neighbouring site at 31 Tunnel Beach Road. Two of these tanks will be septic tanks servicing the toilet block and will be totally subterranean. The other two tanks will be for potable water and will measure 3m in height and be located within the 6m side yard. However, these tanks will be set approximately 1m into the ground resulting in only 2m of height above ground level. These tanks are required to be located in this location due to the lack of reticulated water meaning water tankers will require access to them to refill approximately once a week.

4.12 Structures

The primary structures proposed as part of the new car park are retaining walls and a new toilet building, as identified in the above section 4.11.

The toilet will include art panels which are being developed through engagement with Mana Whenua.

Retaining walls have been designed throughout the car park to be less than 1m in height. This has occurred in order to link back to the design philosophy of creating an unobtrusive development and one that blend into the environment with appropriate landscaping.

The new toilet building will comprise of two accessible, self-contained toilets. This toilet block will be approximately 2.3m high, 5.45m wide and 5.15m long (refer to **Appendix B**, drawing A-1 for specifications). The block will be constructed with materials sympathetic to the surrounding Rural-Residential and coastal environment comprising of painted timber, corrugated steel and potentially decorative fretwork. Two septic tanks will be located under the toilet block and emptied by the DCC Property Services as required.

As previously mentioned, four plastic tanks are also proposed to the east of the amenity area identified above. Two of these tanks will provide potable water to the car park facilities as there is no reticulated network within the area and there will also be two septic tanks submerged into the landscaping.

4.13 Noise

Currently, parking on the street is creating adverse noise effects on the adjoining landowners.

Through alterative assessment options and community consultation, the proposed car park location and design was settled on to minimise moving noise effects from where they currently exist. A noise assessment has been undertaken by Marshall Day (Appendix E) which has found the activity is anticipated to comply with the Dunedin Proposed 2GP noise requirements.

Nevertheless, a new landscaped bund is proposed to the west of the car park which will provide additional acoustic screening for the neighbouring site to the west. Through community consultation, this receptor is considered to be sensitive due to a number of horses on the site. A combination of the proposed noise bund, additional landscaping and the existing macrocarpa's will further mitigate potential noise effects.

In addition to acoustic screening, DCC proposes that the carpark operate in accordance with the attached Tunnel Beach Management Plan (**Appendix I)** will be produced to manage the effects of the car park. This Plan restricts operating hours as follows:

Operating hours

Through consultation with neighbouring land owners, the DCC will install a gated entrance/exit to lock the car park overnight. This will also assist in reducing noise during unsociable (night time) hours. The indicative car park operating hours will be:

- Autumn/Winter 9am – 5pm
- Spring/Summer 8am – 9pm

In the first year of operating DCC will liaise with DOC and assess visitor feedback to determine whether these hours of operation are sufficient.

4.14 DOC Existing maintenance operation stockpile

Currently, DOC use the site of the proposed car park to store a small stockpile of gravel which is used for track maintenance. DOC has agreed that this stockpile can and will be moved to the west of the proposed car park and will be screened from the western neighbours by a vegetated bund **(Drawing 3336298-AL-011, Appendix C**. This bund will be used to visually and acoustically screen the stockpile and wider car park area.

A new gate will be installed to access the stockpile and sufficient manoeuvring room provided for a truck to access the stockpile **(Drawing 336298-CA-030, Appendix B)**.

4.15 Tunnel Beach Car Park Operational Plan

The car park will be operated by DCC.

In order to manage car parking for the increasing visitor numbers to Tunnel Beach, DCC propose that carpark activity operations comply with the attached Tunnel Beach Car Park Operational Plan. This Management Plan addresses matters raised by the community during the consultation phase including traffic, rubbish and visitors at night.

Toilet

Presently, the site contains two portaloos during the summer period which are inadequate at peak times and are filled before servicing can be arranged. Residents have also complained about potential health concerns associated with the portaloos and excrement littering owing to the insufficient supply and appropriateness of the present toilet facility.

As outlined above, the DCC are seeking to alleviate this issue through providing a new self-contained toilet facility (2 stalls) that is appropriate to meet demand (refer to **Appendix B**, drawing A-1 for specification). This toilet facility will be located within the car park and DCC Property Services will manage the facility. Two septic tanks will be located adjacent to the toilet facility which will be emptied as required. These tanks are located underground and not within any boundary setbacks.

Waste

Residents have also raised concerns about littering however, have confirmed that the volume of rubbish has reduced significantly once rubbish bins were installed by the DCC. These existing bins will be retained, and an indicative collection frequency is as follows:

- Spring/Summer 3 days per week
- Autumn/winter once per week

If the location sees a reduction in overseas tourists DCC may look to reduce the frequency during the summer months to two times a week.

Operating hours

Through consultation with neighbouring land owners, the DCC will install a gated entrance/exit to lock the car park overnight. This will also assist in reducing noise during unsociable (night time) hours. The indicative car park operating hours will be:

- Autumn/Winter 9am – 5pm
- Spring/Summer 8am – 9pm

In the first year of operating DCC will liaise with DOC and assess visitor feedback to determine whether these hours of operation are sufficient.

5 Reason for Application

This section details the application under the relevant legislation. This consent application seeks land use consent for the establishment of a new car park servicing the Tunnel Beach walkway and also seeks land use consent if one is required for the upgrade to the track to be carried out by DOC.

5.1 Resource Management Act 1991

The Resource Management Act (RMA) provides the framework for all resource use in New Zealand.

Section 4 of the RMA states that:

(1) This Act binds the Crown, except as provided in this section…

(3) Section 9(3) does not apply to any work or activity of the Crown within the boundaries of any area of land held or managed under the Conservation Act 1987 or any other Act specified in Schedule 1 of that Act (other than land held for administrative purposes) that—

> *(a) is consistent with a conservation management strategy, conservation management plan, or management plan established under the Conservation Act 1987 or any other Act specified in Schedule 1 of that Act; and*
>
> *(b) does not have a significant adverse effect beyond the boundary of the area of land.*

The components of the project which are the new carpark and the track upgrade are located on land that is subject to the Reserves Act. This Act is specified in Schedule 1 of the Conservation Act and the proposed work is considered to be consistent with the OCMS as discussed in sections 2.4 8.1.11 of the AEE. Accordingly, section 4 of the RMA is potentially applicable to the project.

However, at this stage it is DCC who will deliver and operate the car park component independent of the Crown. Therefore, while this scenario is in place, section 4(3) does not apply to the carpark proposal as it is an activity of DCC and not the Crown.

The upgrade to the track will however be undertaken by DOC (the Crown) and the works, based on the conclusion in section 6 of the AEE, are not considered to have a significant adverse effect beyond the boundary of the area of the track upgrade works. Accordingly, section 4(3) is applicable to the track component of the project and section (9)(3) does not apply (see below).

However, the details of the track upgrade works have been included in this application as a precaution should DCC determine that consent is required and to ensure the consent authority understands the full context of the proposal.

Section 9 of the RMA places restrictions on land use.

Section 9(3) states that:

> *No person may use land in a manner that contravenes a district rule unless the use—*
>
> *(a) is expressly allowed by a resource consent; or*
>
> *(b) …*

On this basis section 9(3) only applies to the carpark component which is discussed further below.

5.2 DCC Proposed 2GP (as it applies to that part of the activity subject to 9(3)-carpark)

The Dunedin City Council Proposed 2GP is considered to be operative and as such the proposal is assessed under this Plan.

Pre-application advice received from DCC has confirmed the track activity is considered 'Community and leisure - large scale', due to it carrying capacity for more than 50 persons which will be exceeded more than 10 times a year.

Pursuant to the Proposed 2GP, the proposed use of land for the carpark is for a 'Community and leisure - large scale activity , which contravenes a district rule (Proposed 2GP 17.3.3(16)).

Therefore, the activity needs to be expressly allowed by a resource consent (land use consent).

5.2.1 Land Use Activities

Table 4.1 summarises the consent sought and the rules that apply to the proposed activity.

Table 4.1: Land Use Activities requiring resource consent under the DCC Proposed 2GP

Rule	Zoning/Overlay	Activity Status
Chapter 17 – Rural Residential Zones		
Section 17.3.3(16): *Community and leisure - large scale*	*Rural Residential Zone*	**Discretionary**
	Outstanding Natural Feature or High Natural Coastal Character	

The southern half of the site is subject to ONF and HNCC overlays. However, the northern section of the site where the car park is to be constructed is not located within these overlays.

Consequently, resource consent for the carpark is required as a **Discretionary Activity** under the DCC Proposed 2GP.

5.2.2 Development Activities

As the activity requires a land use resource consent, all associated development activities will be considered and assessed as part of the resource consent, pursuant to Chapter 17.3.2(4).

Specifically, it is noted the proposal will not comply with boundary setbacks for the potable water supply tanks being a maximum of 2m from the adjoining boundary.

Table 4.2: Development Activities requiring resource consent under the DCC Proposed 2GP

Rule	Development Activity	Performance standards
Chapter 8A - Earthworks		
8A.3.2(1)	All earthworks activities	• Archaeological sites • Batter gradient • Setback from property boundary, buildings, structures and cliffs • Setback from National Grid (earthworks) • Setback from network utilities • Sediment control • Removal of high-class soils • NZ Environmental Code of Practice for Plantation Forestry • Setback from scheduled tree • Dust control

8A.3.2(3)	Earthworks – large scale	• Setback from coast and water bodies
Chapter 17 – Rural Residential Zones		
17.3.4(1)	All development activities	• Natural Hazards Performance Standards • Setback from scheduled tree
17.3.4(2)	Building and structure activities	• Boundary setbacks • Maximum height • Number, location and design of ancillary signs • Reflectivity (landscape and coastal character overlays) • Setback from coast and water bodies • Setback from National Grid
17.3.4(4)	New buildings or structures less than or equal to 60m² footprint	• Fire fighting
17.3.4(6)	Fences	• N/A
17.3.4(17)	Parking, loading and access	• Parking, loading and access standards
17.3.4(21)	Vegetation clearance	• Vegetation clearance standards

5.3 Otago Regional Plan: Water Permitted Activity Assessment

DCC can undertake Permitted Activities without resource consent, provided that the Permitted Activity criteria for the specific activities are met. The following activities are permitted, and as such, do not require resource consent.

Table 4.3: Permitted activities in the Otago Regional Plan: Water

Rule	Activity
12.B.1.8 – Discharge of Stormwater	The discharge of stormwater from the new car park will not contain any human sewage and will be managed so that no erosion, land instability, sedimentation or property damage is caused. Additionally, the discharge will not give rise to oil or grease films, scums or foams, or floatable or suspended materials; or changes in the colour or visual clarity of the receiving water (Pacific Ocean). Nor will the discharge result in objectionable odour or significant adverse effects on aquatic life.

6 Assessment of Environmental Effects

6.1 Overview

In accordance with Section 104(1)(a) of the RMA, when considering an application for resource consent, the consent authority must, subject to Part 2, have regard to any actual and potential effects on the environment of allowing the activity.

This section identifies and discusses the actual and potential effects arising from the development of a car park associated with the Tunnel Beach track on the northern section of 30 Tunnel Beach Road. This AEE considers effects managed by the Dunedin City Council Proposed 2GP and has been structured accordingly.

As discussed above, while the track upgrade works are not considered to require resource consent the effects are assessed to establish that the effects are not significant beyond the boundary of the works and to provide a complete description of the development.

6.2 Potential and Actual Adverse Effects

6.2.1 Potential Positive Effects – **Car Park Management**

Currently, the parking within Tunnel Beach Road is not actively managed and generates adverse traffic, amenity and public health implications.

The proposed car park will have the positive effect of remediating this poorly managed activity. The car park will remove the legal ability for visitors to park within the Tunnel Beach Road carriageway while simultaneously providing more parking and manoeuvring than currently exists. Through providing this parking, there will be less pedestrians in the roadway as well as an absence of parked vehicles. This will assist in both increasing visitor safety (through providing pedestrian walkways) and providing more expansive sightlines for visitors using Tunnel Beach Road as well as surrounding owner/occupiers.

In addition, the provision of additional amenities such as seating, rubbish bins and toilets will seek to reduce rubbish and human waste that has been recorded around the site. The management of the carpark through the Management Plan will also set out explicit outcomes and expectations around the management of the situation.

6.2.2 Potential Positive Effects – Improved access facilities

DOC has assessed that the Tunnel Beach track is not adequate for the two visitor groups who use the site; being the day visitor and short stop traveller (Tracks and Outdoor visitor Structures SNZ HB 8630:2004).

By improving the grade of the track and providing viewpoints, these groups will be provided with an improved access experience, connecting them with the unique natural, cultural and historic heritage of Tunnel Beach and the surrounding coastal zone.

6.2.3 Potential Positive Effects – Environmental Management

The drawings detail the establishment of multiple viewpoints where people can experience Tunnel Beach and the surrounding coastal zone, with an experience length and comfort more suited to the user group, will encourage people to stop earlier in the track and still have an adequate experience. This will increase safety and protect the coastal herb field by reducing the number of people who venture all the way to the headland; the herb field and the significant fall hazard present there. This approach has been utilised at Orau/Sandfly Bay on the Otago Peninsula, where it was effective at reducing the number of people continuing all the way to the beach and Hoiho habitat by up to 60%. For people who do continue on, having already experienced

high quality viewing points may also reduce the likelihood that they will spend time at the headland and walking/disturbing the the herb field.

6.2.4 Effects on Private Accessways

There are two private accessways at the end of Tunnel Beach Road which service properties to the north and south. Presently, the owners and occupiers of these properties are required to navigate through an unmanaged parking situation to access their properties. Community consultation has raised anecdotal evidence of difficultly accessing driveways due to incorrectly parked visitor vehicles and unmanaged pedestrian flows. These issues are crucial as the terminus of Tunnel Beach Road also serves as the entrance to the private accessways as well as to the beginning of the Tunnel Beach walking track.

Due to the heavy vehicle and pedestrian congestion in the area, there is severely limited manoeuvring ability for not only cars but larger vehicles. In this respect, it is noted that a number of these properties rely on large vehicles gaining access to their sites to allow for the movement of livestock and commercial activities. At this current time an unmanaged large scale community and leisure activity is restricting the ease in which to access their sites.

DCC seeks to manage these adverse effects through the removal of on street parking and provision of parking in a dedicated car park off the Tunnel Beach carriageway. Through removing parking from the carriageway, greater manoeuvrability into the private accessways will be provided, as shown on plans 3336298-CA-K201 through K203. This will allow for larger trucks to gain access into both the north and south accessways.

The proposed works will seek to mitigate and manage an existing adverse effect through removing cars from the Tunnel Beach Road carriageway. This is anticipated to create more manoeuvring room for adjoining properties and thus the adverse effects are considered to be less than minor in this regard.

6.2.5 Traffic and parking effects

Presently there are 18 dedicated car parks and one parking bay demarcated along the Tunnel Beach Road carriageway. These parks are located along the last 80m of the road before the private accessways and beginning of the walking track. As evidenced in **Appendix G**, these parks are significantly insufficient to meet the current demand of the activity. During peak periods vehicles are parking along the road berm and beginning to encroach into private property. Figure 4 in Section 4.2 shows an indicative informal parking situation, that already occurs, showing provision for up to 52 vehicles on either side of the carriageway up to 200m from the end of Tunnel Beach Road. Further, when large vehicles such as tour buses arrive, there is no room for them to turn around in an efficient manner. The only option these operators have it to pull a multi-point turn surrounded by numerous stationary and moving hazards.

The above situation is resulting in a highly constrained operational carriageway where-as a two lane road is reduced to one lane capacity. This is due to unmanaged parking resulting in oversized vehicles blocking the carriageway, visitors walking on the road, preparing food within the roadway and generally milling around the road due to lack of amenities. The evidence of this situation can be seen in Appendix G. Currently, the adverse effects associated with this situation can only be considered as significant not only in terms of traffic and parking but on health and safety.

In collaboration, DCC and DOC have considered that the best scenario to resolve these issues is to remove formed parking from Tunnel Beach Road and provide replacement parking in another location off the roadway. The development of a new, dedicated car park seeks to achieve this. As identified in Section 4.2, this new car park will contain the following:

- 58 car parks;

- 4 oversized car parks;
- 2 accessible car parks;
- A drop off point for tour buses; and
- A parking bay for motorbikes, bicycles and e-Bikes.

The proposed car park will result in a net increase of 40 demarcated car parks, excluding provision for oversized vehicles, dedicated accessibility parks and bike parking, none of which are currently provided for. In addition, the drop off point for tour buses will allow for large buses to enter, drop off visitors and exit all in a forward manner without the need to turn the bus around. All car parks will comply with the Dunedin City Proposed 2GP dimensions and manoeuvring requirements and thus, as identified in the traffic assessment contained in **Appendix D** and shown in vehicle tracking drawings, no adverse effects are anticipated in terms of the physical reticulation and vehicle manoeuvring within the car park.

In order to discourage parking, and provide legal authority to enforce, DCC proposed to establish 'no stopping' yellow line and associated signage along Tunnel Beach Road. This will be in addition to landscaping along the carriageway and 2.5m wide footpaths in the location where the current parking is occurring. Refer to design drawing 3336298-CA-011 for the new proposed road layout.

Freedom camping within Dunedin City's Road Reserve is managed by the Camping Control Bylaw 2020. The proposed removal of carparking at the end of Tunnel Beach Road and the inclusion of no parking lines will remove an area that visitors could potentially freedom camp within. If visitors decide to freedom camp in Tunnel Beach Road following the completion of the proposed works they will now be required to park in a uneven verge, this is not expected to be desirable.

Other than by removing existing parking, the proposal does not involve improved turning at the end of Tunnel Beach Road. However, tunnel beach visitor traffic will no longer be required to turn at the end of Tunnel Beach Road as it will now enter and exit through the proposed carpark.

Given the significant net increase in the provision of safe and well-designed car parks, including the provision of oversized parks, accessibility parks, bike parking and a 'through' bus drop off zone, the proposed works are considered to be a vast improvement on the current situation. Through these works, DCC seeks to manage the adverse effects associated with an existing activity that falls within the definition of community and leisure – large scale. As a result, the adverse effects arising from the proposal are considered to be measurably less than the existing environment and no more than minor.

6.2.6 Stormwater and Erosion Effects

The development of the car park will introduce additional impervious area into the catchment and as a result is anticipated to increase the existing stormwater flows. The pre-development catchment area is calculated to be approximately 4.5ha which is dominated largely by an undeveloped rural environment while the proposed car park area is approximately 0.4ha. The strategy for the proposed stormwater network has been developed primarily in accordance with the Dunedin City Council Code of Subdivision and Development 2010.

The primary stormwater network has been sized to convey up to the 10% AEP (Annual Exceedance Probability) [1 in 10-year] 10-minute duration event. As shown by drawings 3336298-CA-012 and 3336298-CA-020, stormwater will be conveyed by dish drains and overland flow to sumps, which will discharge via a headwall to the rural catchment below. The discharge point will comprise of scour protection such as rip-rap at a design suitable to the velocities. From this discharge point, stormwater is conveyed via a natural overland flow path to the cliffs below the site. In events greater than the 10% AEP 10-minute, stormwater will be conveyed to the downstream overland flow path by flowing south over the bus stop area to the rural catchment below.

Stormwater analysis **(Appendix G)** has determined that the pre development 10% AEP runoff is approximately 200 L/s while post development 10% AEP Runoff is anticipated to be 240 L/s. It is understood the overland flow path currently experiences a velocity of approximately 0.84m/s during a 10% AEP event and post development this will increase to approximately 0.88m/s.

Environment Canterbury, 2007 "Erosion and Sediment Control Guidelines for the Canterbury Region" Report No. CRCR06/23 states: *"In most cases, a sound, well-established grass cover should provide an acceptable level of erosion protection for a flow velocity of 1.0 – 1.5 metres per second, depending on whether it is a sandy soil of stiff clay".* The velocities quoted above are less than 1 m/s, therefore it is anticipated that with the establishment of riprap protection at the headwall, further erosion protection will not be needed for the overland flow path.

In consideration of the above, with the establishment of rip rap scour protection at the headwall, there is minimal increased risk of erosion downstream.

6.2.7 Landscape and Visual Effects associated with the car park establishment

The existing activity occurring at Tunnel Beach has been defined as a large scale community and leisure activity and is currently considered to be in a largely unmanaged format. However, as DCC proposes to manage this activity through the provision of new car parking, new adverse effects associated with the landscape and amenity could be introduced. This is particularly relevant in the context of the coastal environment, albeit the site is not subject to any specified landscape or visual amenity provisions within the 2GP.

In order to determine the effects in regard to landscape and visual amenity, a Landscape and Visual Assessment (LVA) has been undertaken by Beca Ltd. This assessment is contained within **Appendix C** and the findings further discussed below.

Landscape Effects

The proposed site is located within a coastal catchment and includes dramatic rolling hills which give way to exposed cliffs and the ocean, which is clearly visible from the carpark site. It is noted that these coastal features of the landscape increase in prominence moving down the site towards the ocean, which is reflected in the HNCC and ONF overlays placed on these lower areas in the Proposed 2GP. Given the legibility of landform, visibility of the ocean and absence of built form on the wider site, the LVA has assessed the environment has contributing to a 'low-moderate' degree of natural character to which effects are assessed against. The low-moderate rating in the LVA is an 'on balance' assessment that considers the assessment of associative and rural amenity affects, both being low, and the effects of the natural character being moderate. This approach recognises the overarching nature of landscape character and the inclusion of the likes of natural character, rural amenity and associations as constituent parts.

The area on which the proposed car park will be located sits within a rural amenity environment. This wider environment consists of grass, livestock paddocks, agriculture, accommodation, rural living activities and coastal DOC lands. The LVA identifies that elements contributing to a high degree of rural amenity in this location include open expansive views, landform legibility, amenity property boundary planting, hedging and shelterbelts, powerlines, fencing, large dwellings and utility buildings.

The Proposed 2GP seeks to maintain rural amenity character and to have regard to natural character outcomes within the nearby coastal overlays. To maintain rural amenity character the LVA has identified key considerations including the use of vegetation to soften hard landscapes, materiality that is in keeping with either natural features or rural activities, sensitive response to topography, retaining a sense of open space and maintaining or enhancing views. Additionally, key considerations for proximity to the HNCC and ONF coastal overlays include use of native vegetation, use of natural materials with low reflectivity, and working

with topography to minimise the need for cut and fill. The design of the car park, associated buildings and landscaping have taken these considerations into account in line with the design philosophy.

The construction of the proposed car park will involve the clearance of exotic vegetation, grass and earthworks to accommodate the required manoeuvring, vehicle gradients and usability for the car park. It is acknowledged that this will fundamentally change the underlying landscape form. However, the site itself is not particularly unique in the wider landscape in that it reflects the character of the surrounding properties with grass, vegetation and sloping terrain proximate to the ocean. Further, landform alteration is not a new feature within the rural residential landscape with earthworks being undertaken to form earth bunds (to screen private property from the current unmanaged Tunnel Beach activity) and building platforms.

The proposed car park design includes earthworks and several built form elements such as retaining walls, the toilet building and steps. The proposed bunds to be established will seek to screen the bulk of the car park from the wider environment however, as mentioned, earth bunds, buildings, and vegetation all already contribute to the rural amenity landscape. Strategic use of vegetation throughout the development and the fact that the carpark is recessed below existing road level will soften hard surfacing. Landscaping that comprises a significant part of the proposed design includes large areas of native vegetation which will enhance biodiversity values through increased natural habitat for birds and insects. This will help to mitigate the effects of earthworks and a change of surfacing from grass to chip seal and concrete and the addition of built structure including retaining walls and a toilet building.

In landscape terms the proposal is considered consistent with the policy framework. Rural amenity character will be retained through use of vegetation and minimisation of built form, and the proposal will visually tie in with the surrounding land uses. Whilst the natural character effects will be moderate due to landform alteration this is off-set somewhat through extensive planting. There is a clear community benefit to the project which will enhance recreational access to the coast and the design of the car park has been designed to minimise adverse effects whilst still achieving the intended project outcomes. The proposal area is outside any landscape overlays but still responds to the natural character of the area through tying in with the surrounding topography, use of native vegetation and use of natural materials. Impacts on adjacent landowners is minimised through locality outside of key views from properties which are oriented either to the north or towards the ocean. In addition, the design being sunk below the existing road with boundaries planted filter views over the carpark and lessen the potential carpark prominence.

Overall, the proposal area is outside any landscape overlays but still responds to the natural character of the area through tying in with the surrounding topography, use of native vegetation and use of natural materials. Given this, it is considered that the adverse effects on the natural character and rural amenity will be no more than minor.

Visual Effects

The proposed car park is located at the very end of Tunnel Beach Road and will have a very small visual catchment, limited to the roadway and the neighbouring properties to the north and east of the site. Approximately seven properties have driveway access either from the southern end of Tunnel Beach Road or the easement to the north of the site, meaning residents have frequent views of the proposed carpark through vehicle movement. Dwellings to the east and west of the site look towards the ocean and away from the project site. Dwellings to the north are oriented to the north and away from the project site.

In order to minimise potential visual effects, the car park design is set down into the site by a cut and retaining wall of approximately 1m and associated native planting on top of the retaining wall. Further, the bulk of the structures on site (being the toilet block) will be located at the very southern section and thus set further down the slope. Overall, viewing audiences are limited to local residents, people coming to stay at nearby accommodation and users of the Tunnel Beach Walking Track.

It is noted that two potable water tanks will be located within the 6m side yard of 31 Tunnel Beach Road. These water tanks will be up to 3m in height but will be submerged into landscaping by up to 1m resulting in a visible 2m of height. Given the nearby site also has potable water tanks a similar distance from the boundary and the sloping nature of the site, the adverse effects of these tanks are not considered to be more than minor.

With the visual assessment undertaken within the LVA and considering the car park design being set into the slope and amenity planting, the adverse effects are considered to be no more than minor.

6.2.8 Landscape and Visual Effects Associated with the Track Modification

Landscape Values

A landscape architect statement against the relevant landscape values identified in the 2GP and the relevant Objectives and Policies of the Operative Plan is located in **Appendix K.** This statement concludes that the proposed realignment is proposed in a manner that will not compromise the identified landscape values of the Tunnel Beach area.

Visual Effects

Apart from the area immediately connected to the carpark, the track realignment will be completed in areas that are not visible to adjoining sensitive activities (residential dwellings) due to the steep topography of the site. Of particular note is that the new viewing platforms are screened by topography from line of sight to and from adjoining dwellings. The following photographs in **figures 5-7** provide a panoramic photograph showing the proposed viewing platform locations Marked on site by a Senior DOC Ranger looking back toward the nearest residential dwelling at 40 Tunnel Beach Road.

Figure 5: Panoramic view from behind Viewing Platform 1 (VP1) showing broken line of sight to any adjoining dwellings

Figure 6: Panoramic view from behind Viewing Platform 2 (VP2) showing broken line of sight to any adjoining dwellings

Figure 7: Panoramic view from behind Viewing Platform 2b (VP2b) showing broken line of sight to any adjoining dwellings

Therefore, because the track will not compromise the identified landscape values and track is not increasing the track's visibility from any sensitive activity the visual and landscape effects are assessed to be no more than minor.

6.2.9 Noise associated with the car park

When the designated 18 parks on Tunnel Beach Road are full, parking occurs in a more unofficial and haphazard manner (shown in **Appendix G** and **Figure 4**). As a result of this, neighbouring properties at 25 and 31 Tunnel Beach Road have established large earth bunds and landscaping facing the road. These bunds seek to not only mitigate visual privacy effects, but noise effects generated from vehicles and people.

A key design outcome for the project was the retention of parking physically as close to what currently exists. This outcome was sought due to the desire to retain parking in close proximity to the access point for the walking track, and thus reduce the distance visitors have to walk to the beginning of the track. Additionally, there was a desire to limit the introduction of new, or increased, noise effects on properties that may not have otherwise been affected. The proposed location was deemed to achieve both these outcomes while remaining consistent with the design philosophy to avoid adverse effects.

As previously identified, the properties at 25 and 31 Tunnel Beach Road have established large earth bunds which act as both noise mitigation and visual privacy screening for the occupants of these sites. In seeking to reduce any potential effects from noise, vegetative screening and landscaping is proposed around the car park in addition to setting the car park 'into' the slope as opposed to raising it 'above' the slope. Specifically, a large 1.5m high bund utilising unused cut spoil will be established to the west of the car park, as identified on civil plan **3336298-CA-010**. This bund, in conjunction with the existing macrocarpa trees which will be retained, will seek to mitigate the potential noise effects on the site at 40 Tunnel Beach Road. This site is considered a sensitive receptor as it's known to provide grazing for horses and the new car park is located closer to this site than the old car park and thus new noise effects may be introduced.

In seeking to determine the potential adverse noise effects of the proposed car park, Marshall Day has undertaken a noise assessment attached as **Appendix E**. Marshall Day have noted that the car park will be closed at night and that the day time noise limited in the Dunedin City Proposed 2GP are not under appeal and thus are considered to be operative.

Marshall Day have found that the noise levels arising from the proposed carpark activity will comply with the Proposed 2GP permitted activity noise limits, and achieve World Health Organisation and NZS6802:2008 guideline values for reasonable protection of health and amenity in residential areas.

In addition to the above, the assessment found that the horses in the paddock to the west of the carpark (at the site boundary of 40 Tunnel Beach Road) may experience noise levels of up to 33 dB LAeq (15 min) and 47 dB LAmax. The assessment noted that horses are not likely to show any response to vehicle noise levels of this magnitude and no adverse effects are anticipated as a result. However, it is accepted that noise levels will increase at 40 Tunnel Beach Road as a result of the proposed carpark. However, the predicted noise level at the site boundary is significantly below the WHO Guideline Value, 50 dB LAeq, provided to protect communities from the onset of moderate annoyance in outdoor living spaces.

For these reasons, in conjunction with the proposed mitigation measures, the adverse noise effects are considered to be less than minor given they will comply with the Proposed 2GP.

6.2.10 Noise Effects Associated with the realigned walkway

Noise generated by people using the walking track is part of the existing environment. The realignment of the track will result in an alignment that is no closer to the nearest dwelling at 40 Tunnel Beach Road. Additionally, the residents at 40 Tunnel Beach Road have advised the applicant of noise sensitive horses located occurring along the western boundary of their property. The track realignment maintains a separation from this boundary of at least 90m except for its closest point of approximately 80m which is on the existing track alignment.

Additionally, within the Rural Residential Zone the noise limits are 55 dB LAeq (15 min) between 7am-7pm and 50 dB LAeq (15 min) after 7pm. Under the 2GP, the noise level is to be measured at notional boundary of noise sensitive activities in the Rural Residential Zone. The only relevant noise sensitive activity defined the 2GP for this environment is residential activities. Therefore, the limit after 7pm is 50 dB LAeq (15 min) at the closest residential dwelling (40 Tunnel Beach Road). 50 dB LAeq is often described as the noise generated in conversation or within an office environment. Given that the noise from the walkway is from conversation and that the track will remain no closer than 120m from the nearest dwelling it is very unlikely that this level will be exceeded.

Noise on still days can carry and be noticeable when wind conditions facilitate, this could result in an adverse effect on the perception of a person's amenity however due to the sound being generated from visitors verbal conversation it will not be able to exceed the noise limits provided for at in the Rural Residential Zone in the 2GP.

Accordingly, due to the realigned track coming no closer to adjoining "Noise Sensitive Activities" and the noise from the operation of the track being generated from human conversation at least 120m away, it will not worsen the potential for noise to be generated and experienced than what currently exists nor will it exceed the 2GP noise limits. Therefore, the adverse effects associated with potential noise generated from the realigned track when taken in the context of the existing environment and the limits of the Rural Residential Zone is assessed as less than minor, and certainly less than significant.

6.2.11 Cultural Effects

It is noted the Otago coastline has many sites of significance to mana whenua. While the proposed car park activity is not located within any identified Wahi Tupuna mapped areas, it is noted that the Wahi Tupuna mapped area Te Uraka a Te Raki is located in somewhat close proximity (~500m) to the south along the coast. This mapped area also corresponds with an Archaeological Alert Layer along the Tunnel Beach coast (although not overlaying the area of works).

Appendix A4.46 of the Proposed 2GP identifies this area as the burial site of Te Rakiihia, a Kāti Mamoe chief. The site allowed him to look both up and down the coast and the values identified to be protected include Urupā, Wāhi taoka and Archaeological remains. The principal threats to the mapped area and associated values are earthworks. It is noted earthworks will be undertaken in the form of cuts and associated fills in the formation of the car park.

Preliminary consultation **(Appendix H)** has been undertaken with Aukaha prior to the lodgement of the resource consent. Aukaha provided feedback on the issues likely of most focus for Te Rūnanga o Ōtākou, which has been taken into consideration in the proposal. Aukaha specified that the New Zealand Pouhere Taonga Archaeological Discovery Protocol be adhered to during earthworks and that landscape planting be of native species appropriate to the area.

In summary, Aukaha have provided their preliminary support to the proposed car park and thus the adverse effects on cultural values are considered to be less than minor.

The updated proposal has been submitted back to Aukaha for comment parallel with the update to include the track.

6.2.12 Construction Effects

As outlined in Section 4, it is proposed to deliver the earthworks in accordance with a Construction Management Plan using standard construction practices to document how construction effects including:

- traffic movements on Tunnel Beach Road;
- Access during construction to adjoining periods,
- Dust management; and
- Erosion and sediment control

On the basis that a Construction Management Plan is required as a condition of consent that addresses potential effects associated with construction utilising construction good practice techniques, potential effects resulting from the construction phase will be appropriately managed.

7 Consultation

7.1 DCC Pre-Application Meeting

A pre-application meeting undertaken on 5 March 2020 between Campbell Thompson (DCC Regulatory), Claire Swift (DCC Project Manager) and James Taylor (Beca) confirmed that the proposed activity is a 'Community and Leisure Activity – Large Scale', due to it carrying capacity for more than 50 persons which will be exceeded more than 10 times a year.

This meeting also informed the level of supporting reports and technical expertise required for the proposed consent application.

7.2 Nearby Residents

Two meetings have been undertaken with stakeholders and potentially affected parties. An onsite meeting in late 2019 was held and a follow up meeting at Corstophine Community Centre was held on 13 August 2020 after COVID lockdown. These meetings provided the design team an important opportunity to determine what the opportunities and challenges were facing nearby residents. These meetings further allowed the design team to refine the Design Philosophy and provide mitigation options for visual, acoustic, traffic and public health concerns.

As a follow up to the community meeting, DCC provided draft documentation to the parties identified in Table 7.1 on 10 November 2020. As a result of this, draft documentation pack, Russell Glen Miller and Linda Lee Miller of 35 Tunnel Beach Road have provided their written approval as attached in **Appendix J**.

Table 7.1: Affected parties sent draft application pack

Name	Address
Gary John Pettigrew and Megan Alison Pettigrew	31 Tunnel Beach Road Green Island
Russell Glen Miller and Linda Lee Miller	35 Tunnel Beach Road Green Island
Kenneth Edward Ruffman	39 Tunnel Beach Road Green Island
Philip Reginald Jackson and Nicola Jan Jackson	43 Tunnel Beach Road Green Island
Brendon Kenneth Lemm and Andrea Lemm	47 Tunnel Beach Road Green Island
Martin Otto Harald Sellbom and Vanessa Clare Beanland	25 Tunnel Beach Road Green Island
Keith Gardiner Ellwood, Joshua William Clark and Katie Joanne Ellwood	22 Tunnel Beach Road Green Island
Andrew Mark Guyton	16 Tunnel Beach Road Green Island
Patrick Sydney Hussey and Sarah Lee Hussey	14 Tunnel Beach Road Green Island
Timothy William Barton and Melissa Louise Barton	173 Blackhead Road Dunedin, 9076
Mark Hamilton and Corina Stephanie Hamilton	181 Blackhead Road Dunedin, 9076
Emma Dorothy Towers	50 Tunnel Beach Road Green Island
Michael Varsanyi, Anya Durling	40 Tunnel Beach Road Green Island

7.3 Aukaha

The Otago coastline has many significant sites and landscapes of past activities and traditions of mana whenua. Within the Tunnel Beach context, this is reflected in the nearby Wahi Tupuna mapped area Te Uraka a Te Raki.

Aukaha were approached to provide input on the proposed activity given the nearby Wahu Tupuna mapped area and wider significance of the Otago coastline. In response, Aukaha provided a preliminary cultural statement, dated 07 Aug 2020. In this statement

Aukaha have advised that the following issues are likely of most focus for Te Rūnanga o Ōtākou:

- Archaeological and cultural heritage values;
- Sediment run-off during earthworks;
- Management of excess excavated material;
- Vegetation;
- Visual and environmental impact on the cultural landscape; and
- Development and adoption of an Environmental, Construction and Operation Plan.

Aukaha identified that Te Rūnanga o Ōtākou would request the following be conditions of any resource consents:

- Adherence to Heritage New Zealand Pouhere Taonga Archaeological Discovery Protocol during earthworks; and
- Planting should be native plants appropriate for the area.

Concluding, Aukaha advised that Te Rūnanga o Ōtākou cautiously support the proposed Tunnel Beach car park. It is anticipated that DCC will seek further engagement with Aukaha throughout processing the application.

7.4 Submitter to Application prior to inclusion of walkway

The owners of 40 Tunnel Beach provided a submission in opposition of the proposed car park development during the notification period and subsequently met with the applicant to discuss their concerns.

8 Opinion on Legislation and Planning Documents

The purpose of the statutory planning assessment is to provide an analysis of the project against the relevant policy framework within which the resource consents are sought. This Assessment of Effects has been prepared within the statutory framework provided by the following relevant legislation and plans:

- The Resource Management Act;
- The Dunedin City Council Proposed 2GP; and

The relevant matters of these statutory documents are discussed below.

8.1 Resource Management Act 1991

The Resource Management Act 1991 (RMA) outlines the functions, powers, and duties of consenting authorities to be exercised to give effect to the purpose and principles of the RMA. The RMA defines a hierarchy whereby priority is given to the matters set out in Part 2 (Purposes and Principles).

8.1.1 Crown Activity (Section 4)

As discussed in section 5 above, work of the Crown that is consistent with a conservation management strategy and does not result in any significant effects beyond the boundary of the land is exempt from section 9(3) of RMA and therefore does not require a resource consent.

This applies to the track upgrade works but not the carpark component. However, the details of the track upgrade works have been included in this application as a precaution should DCC determine that consent is required and to ensure the consent authority understands the full context of the proposal.

8.1.2 RMA Part 2 Purpose and Principles (Section 5)

The purpose of the RMA is to promote the sustainable management of natural and physical resources. Sustainable management is defined in Section 5(2) as:

> *…managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while –*
>
> *a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
>
> *b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
>
> c) *Avoiding, remedying, or mitigating any adverse effects of activities on the environment*

Comment: This project is driven out of the desire to provide for the community's health and safety by removing an unsafe carpark situation. Additionally, the development of a car park servicing the Tunnel Beach walkway is considered to mitigate the adverse effects associated with the existing activity of visitors parking on the road, blocking the carriageway and the resulting public health effects of lack of infrastructure. Therefore, given the proposed development seeks to improve the health and safety of the area and remedy and mitigate existing adverse effects, the purpose of the RMA will be achieved.

8.1.3 RMA Part 2 Matters of National Importance (Section 6)

Section 6 of the RMA sets out 'Matters of National Importance' that are to be recognised and provided for in managing the use, development and protection of natural and physical resources. The following matters are applicable to the proposed development.

Section 6(a) provides for the preservation of the natural character of the coastal environment (including the coastal marine area). The proposed activity does not detract from the natural character of the coastal environment as the reserve area already provides for uses which encourage the use parking at Tunnel Beach Road. . The development of a car park within a recreation reserve that is set into the slope and surrounded by landscaping and amenity planting is not considered to detract from the natural character of the existing coastal environment. The structure, design and management controls that are put in place have been designed to ensure that the preservation of the coastal environment is not compromised by providing recreational opportunities.

Section 6(b) provides for the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development. The proposal will not be located within any outstanding natural features or landscapes although it is acknowledged the existence of these nearby.

Section 6(d) provides for the maintenance and enhancement of public access to and along the coastal marine area, lakes and rivers. The maintains the access and use of the coastal marine environment and provides a unique opportunity to sustainably manage access and use of the Tunnel Beach Recreation Reserve.

Section 6(e) provides for the relationship of Maori and their culture and traditions with their ancestral lands, water, sites and waahi tapu, and other taonga. The proposed activity has taken into consideration and location of the nearby Te Uraka a Te Raki waahi tupuna mapped area and the potential effects on cultural perspective. Through consultation with Aukaha and taking cultural matters into consideration, the proposal is consistent with section 6(e).

8.1.4 RMA Part 2 Other Matters (Section 7)

Section 7 of the RMA lists the matters to which particular regard must be had in making resource management decisions.

Section 7(b) provides for decision makers to have regard for the efficient use and development of natural and physical resources. The proposal is a unique opportunity to develop the currently underutilised reserve area. The addition of a car parking area enhances people's capacity to enjoy the coastal environment of the Otago Harbour and public reserve. Further, the development will represent an efficient use of resources given the current parking situation at Tunnel Beach is creating adverse effects for visitors and residents of the area.

Section 7(c) provides for the maintenance and enhancement of amenity values. The design philosophy has sought to avoid or mitigate effects on amenity values. Given the proposed design of the car park is set into the slope of the existing landscape and the extensive native amenity planning, the proposal is considered to maintain the amenity values of the rural residential and coastal environment.

8.1.5 Part 2 Treaty of Waitangi (Section 8)

Section 8 of the RMA requires that persons exercising function, powers and duties under the Act to take into account the principles of the Treaty of Waitangi.

Auhaka have been consulted with in the development of the car park design.

8.1.6 Section 104(1) – Consideration of Applications

Section 104 of the Act sets out those matters that the consent authority shall have regard to when considering an application for resource consent. All of those matters are to be considered to be subject to Part 2 of the Act. In particular, Section 104 requires the consent authority to have regard to the following:

(a) any actual and potential effects on the environment of allowing the activity; and

(b) and relevant objectives, policies, rules or other provisions of a plan or proposed plan; and

(c) any other matters the consent authority considers relevant and reasonably necessary to determine the application.

8.1.7 Section 104(1)(a) Assessment

Section 104(1) (a) relates to any and potential effects of allowing the activity and these have been considered in Section 6 of this report. This assessment concludes that any adverse effects will likely be minor.

8.1.8 Section 104(1)(b) Assessment

Section 104(1) (b) refers to any relevant provisions of—

(i) a national environmental standard:

(ii) other regulations:

(iii) a national policy statement:

(iv) a New Zealand coastal policy statement;

(v) a regional policy statement or proposed regional policy statement: and

(vi) a plan or proposed plan;

Relevant documents are discussed below

The Dunedin City Proposed 2GP

Chapter 17 Rural Residential Zones

Objective 17.2.1 *– The rural residential zones enable lifestyle blocks, hobby farms and associated residential activities as the appropriate place in the rural environment for these to occur, and provide for a limited range of other compatible activities.*

- *Policy 17.2.1.5 – Only allow… community and leisure - large scale… where the effects will be adequately managed in line with objectives 17.2.2, 17.2.3 and 17.2.4 and their policies, and the objectives and policies of any relevant overlay zones.*

Objective 17.2.2 *– The potential for conflict between activities within the rural residential zones, and between activities within the rural residential zones and adjoining residential zones, is minimised through measures that ensure:*

- *the potential for reverse sensitivity is minimised; and*
- *a good level of amenity on surrounding rural residential properties, residential zoned properties and public spaces.*

- *Policy 17.2.2.5 – Only allow… community and leisure - large scale… where any adverse effects on the amenity of surrounding rural residential properties are avoided or, if avoidance is not practicable, adequately mitigated.*

Objective 17.2.3 *– The character and amenity of the rural residential zones are maintained, elements of which include:*

- *a high presence of natural features such as trees, bush, gully systems and water bodies;*
- *a semi-rural level of development, with a higher proportion of open space and lower density of buildings than in urban areas; and*
- *land maintained and managed for farming, grazing, conservation and rural residential activities.*

- *Policy 17.2.3.3 – Only allow… community and leisure - large scale… where any adverse effects from development on rural residential character and visual amenity will be avoided or, if avoidance is not practicable, adequately mitigated.*

Comment

The objectives and policies of the Rural Residential chapter allow for community and leisure - large scale activities to occur in the zone where adverse effects can be avoided or mitigated.

Through the establishment of earth bunds and planting the adverse effects associated with noise on the surrounding environment will be avoided with the Proposed 2GP standards for daytime noise complied with and the car park closed at night. In addition, the design of the carpark being set into the slope of the landscape and significant native amenity planting will mitigate the adverse effects associated with rural amenity. Overall the adverse effects on amenity are considered to be no more than minor and fundamentally the character of the zone will be maintained.

National Policy Statement: Urban Development

The NPS:UD directs DCC to remove district plan rules, assessment criteria, policies and objectives that have the effect of setting minimum car parking rates. Further, subpart 8 requires territorial authorities to undertake these changes to their district plans without going through a Schedule 1 process, i.e a public plan change process.

Specifically, the NPS:UD states:

"Policy 11: In relation to car parking:

a) *the district plans of tier 1, 2, and 3 territorial authorities do not set minimum car parking rate requirements, other than for accessible car parks; and*

b) *tier 1, 2, and 3 local authorities are strongly encouraged to manage effects associated with the supply and demand of car parking through comprehensive parking management plans"*

[...and]

"Subpart 8 – Car parking

3.38 Car parking

1. *If the district plan of a tier 1, 2, or 3 territorial authority contains objectives, policies, rules, or assessment criteria that have the effect of requiring a minimum number of car parks to be provided for a particular development, land use, or activity, the territorial authority must change its district plan to remove that effect, other than in respect of accessible car parks.*
2. *Territorial authorities must make any changes required by subclause (1) without using a process in Schedule 1 of the Act.*
3. *Nothing in this National Policy Statement prevents a district plan including objectives, policies, rules, or assessment criteria:*
    a. *requiring a minimum number of accessible car parks to be provided for any activity; or*
    b. *relating to parking dimensions or manoeuvring standards to apply if:*
        i. *a developer chooses to supply car parks; or*
        ii. *when accessible car parks are required."*

The background to the NPS:UD indicates that the NPS is intended to enable more housing and commercial developments, particularly in higher density areas. However, it is applicable to all areas. These changes came into effect on 20 August 2020 and requires DCC to amend the Proposed 2GP to remove parking provisions without a public process. In this aspect, the NPS:UD establishes an effective permitted baseline in which car parking is not required to be provided on site except for accessible car parking.

Nevertheless, DCC has sought to provide 58 standard car parks, 4 oversized car parks and 2 accessible car parks which will all comply with the relevant standards of the Proposed 2GP.

The carpark is not located within the 2GP Landscape or Outstanding Natural Feature Overlay.

The Operative Dunedin City Plan (2006)

Chapter 14 Landscape

Several objectives and policies relating to coastal character overlays in the 2GP are under appeal. As such, an assessment is required against the applicable comparative objectives and policies of the operative District Plan (2006).

In the operative District Plan, the site is located in the South Coast Coastal Landscape Preservation Area (SCCLPA). The SCCLPA seeks to preserve the visual dominance, integrity and coherence of the natural landform and the character of the dramatic coastal views and limited influence of large scale structures and exotic plantings. The identified threats to these visual qualities are inappropriate siting, design and scale of structures, roads and shelterbelts.

Noting that the proposed car park will not be within any 2GP landscape overlays, the proposed works are considered to be consistent with the following objectives and policies of the operative District Plan:

8.1.9 Objectives:

14.2.2 – Ensure that the natural landscape characteristics of the coastal environment, wetlands, lakes, rivers and their margins are preserved and protected

14.2.3 – Ensure that land use and development do not adversely affect the quality of the landscape

14.2.4 – Encourage the maintenance and enhancement of the quality of Dunedin's landscape

8.1.10 Policies:

14.3.2 – Identify and preserve the important characteristics that create the natural landscape character in the coastal environment, wetlands, lakes, rivers and their margins

14.3.4 – Encourage development which integrates with the character of the landscape and enhances landscape quality

Comment:

Currently, the operative District Plan identifies the area as holding integrity, extent and coherence of the natural character of the landform, being a dramatic coastal environment where visual interest is focussed on the coastal edge. Specifically, the dramatic landforms are referenced as the Caversham sandstone cliffs (Tunnel Beach area). The proposed car park location and design has been carefully considered so as to not detract from this coastal character or result in visual dominance over the coastal landform. In doing this, the car park has been located laterally along the private access road at the end of Tunnel Beach Road. This has been a conscious design choice taking into account the design philosophy of seeking to avoid dominance on the coastal landscape and associated earthworks.

Through this design, the natural character of the Caversham sandstone cliffs are protected while the proposed land use enhanced the quality of the landscape through the removal of adverse social effects

(rubbish, anti-social behaviour, unmanaged parking/traffic etc). Additionally, the site is currently vacant with exotic grass where-as Chapter 14.5.2 of the operative District Plan seeks to preserve the remaining areas of indigenous vegetation. The proposed design seeks to enhance the environment in this respect by introducing indigenous species suited to the harsh coastal environment.

Overall, the proposed works are considered to integrate into the existing, and preserved, character of the landscape and consequently will be consistent with the above objectives and policies of Chapter 14 of the operative District Plan 2006.

8.1.11 Section 104(1)(c) Assessment

Section 104(1) (c) refers to any other matter the consent authority considers relevant and reasonably necessary to determine the application. For this application the following matters are relevant:

- The Otago Conservation Management Strategy 2016;
- Kai Tahu ki Otago Natural Resource Management Plan 2005; and
- The Landscape Policies and Objectives relevant to the walking track.

Otago Conservation Management Strategy 2016

The Otago Conservation Management Strategy (OCMS) was published by the Department of Conservation in 2016. Section 1.5 of the OCMS outlines national and regional conservation objectives be delivered by management of conservation resources within Otago over the next 10 years.

As discussed above, Sub-section 1.5.3 of the OCMS focusses on recreation. Under 1.5.3.1 there is an objective to "*understand demand for outdoor recreation and provide recreation opportunities where:*

a. the recreation opportunities are consistent with:

i. the protection of indigenous natural, historic and cultural resources; and

ii. the purpose for which the lands and waters concerned are held; and

b. demand is evident; and

c. demand is expected to be sustained.

Further under 1.5.3.12 there is an objective to encourage recreation opportunities on public conservation lands and waters that are consistent with outcomes for a Place, that meet a range of recreational objectives, and that *"are supported or enabled by facilities that are able to be maintained into the future."*

Appendix 1 of the OCMS provides a table titled "*Work or activities of the Department of Conservation that may meet the requirements of section 4(3) of the Resource Management Act 1991 for exemption from land use consents in Otago".* The table lists a range of areas of work/activities including:

- track upgrades and realignments to take better advantage of grades; and
- improvements to tracks to management actions to mitigate any environmental impact, health and safety concern or visitor risk

Under the subheading *"Tracks, roads and car-parking areas for visitor purposes", "Tunnel Beach and the coast South of Dunedin"* is listed as a location.

Given the numbers of track users of the Tunnel Beach Walkway, there is clearly demand for recreation at this site. This demand s1.5.3 is activated activities which align directly with the proposed track realignment outlined in this application. Therefore, this proposal is consistent with the OCMS.

Kai Tahu ki Otago Natural Resource Management Plan 2005

Otago Region / Te Rohe o Otago

Wai Māori and Wai Tai in the Otago Harbour Catchment

Wai Māori and Wai Tai Issues

- *Deterioration of inlet health and impacts on the mauri and life supporting capacity of the seas.*

Wai Māori and Wai Tai Policies

General

- *To promote best practice methods for waterway, river and harbour works that:*
  - *Minimise sedimentation during works*

Cultural Landscapes

Cultural Landscapes General Policies

- *To promote the control of visitor and recreational activities that impact on significant landscapes.*
- *To require that the interpretation of Kāi Tahu ki Otago histories for either public or commercial reasons undertaken by the appropriate Rūnaka and/or whanau.*

Tourist Operations

- *To require commercial operators to consult with Kā Papatipu Rūnaka and obtain agreement about an historical, spiritual or cultural information relating to the takata whenua and to ensure any information used is both appropriate and accurate.*
- *To encourage adequate provision is made for storage and collection of litter and refuse, and disposal is in an approved manner.*

The proposed location of the activity avoids the wahi tupuna area near the site. Overall the proposal is considered to be consistent with the Kai Tahu ki Otago Natural Resource Management Plan 2005 (Otago Region) and comments from Aukaha have been obtained.

As mentioned above, further response from Aukaha will be provided to DCC regulatory upon receipt.

Relevant Landscape objectives and policies of the 2GP in relation to the High Natural Coastal Character and Outstanding Natural Feature Overlays:

A landscape architect statement against the relevant landscape values identified in the 2GP and the relevant Objectives and Policies of the Operative Plan is located in **Appendix K.** This statement concludes that the proposed track work upgrades is proposed in a manner that will not compromise the identified landscape values of the Tunnel Beach area.

8.1.12 Section 104B - Determination of applications for non-complying and discretionary activities

Section 104B of the RMA states that after considering an application for a resource consent for a discretionary activity or non-complying activity, a consent authority

(a) May grant or refuse the application; and

(b) If it grants the application, may impose conditions under section 108.

As demonstrated in Section 6, the effects on the environment will be no more than minor and the proposal is consistent with the objectives and policies of the Dunedin City Proposed 2GP. It is therefore considered that the consent may be granted pursuant to section 104B.

9 Conclusion

As the public walkway at Tunnel Beach has become more popular, the current car parking situation has become untenable. The existing car parks are unable to provide adequate parking during peak periods and this is resulting in adverse effects in relation to traffic, manoeuvring, noise, health and safety and antisocial behaviour.

Additionally, in administering its functions under the Conservation Act 1987, DOC has assessed that the Tunnel Beach track is not adequate for the two visitor groups who use the site; being the day visitor and short stop. Therefore, the track in its current form does not optimally connect people from these groups using the track to the unique natural, cultural and historic heritage of Tunnel Beach and the surrounding coastal zone.

Accordingly, DOC and DCC jointly seek resource consent to authorise the establishment of a new car park at Tunnel Beach Road.. The application also refers to DOC's proposed track alignment to provide further context to the car park and to ensure that this aspect of the development is correctly assessed in terms of the RMA.

The new car park will address the current 'unmanaged' parking situation at Tunnel Beach by more than doubling parking provision and providing additional amenities such as permanent toilets, bus parking and a concession area. While the realigned track will better connect the community with the unique environment of Tunnel Beach.

Overall, the adverse environmental effects of the proposed works relating to the car park are considered to be no more than minor given the direction of the 2GP. In addition, the potential adverse effects associated with the track modification works are considered to be no more than minor and certainly less than significant.

Appendix A – Certificate of Title

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Search Copy

R.W. Muir
Registrar-General
of Land

Identifier **271321**
Land Registration District **Otago**
Date Issued 31 January 2006

Prior References
170432

Estate	Fee Simple
Area	7.8804 hectares more or less
Legal Description	Part Lot 1 Deposited Plan 314013 and Part Section 145-146, 163 Green Island Bush Survey District and Part Section 56-58 Ocean Beach Survey District
Purpose	Recreation Reserve

Registered Owners
Her Majesty the Queen

Interests

Part Lot 1 DP 314013 and Part Section 163 herein are subject to Section 8 Mining Act 1971

Part Lot 1 DP 314013 and Part Section 163 herein are subject to Section 3 Petroleum Act 1937

Part Lot 1 DP 314013 and Part Section 163 herein are subject to Section 8 Atomic Energy Act 1945

Part Lot 1 DP 314013 and Part Section 163 herein are subject to Section 261 Coal Mines Act 1979

Part Lot 1 DP 314013 and Part Section 163 herein are subject to Section 5 Coal Mines Act 1979

Part Lot 1 DP 314013 and Part Section 163 herein are subject to Section 3 Geothermal Energy Act 1953

Part Lot 1 DP 314013 and Part Section 163 herein are subject to Part IV A Conservation Act 1987

The Sections 145 and Part Section 146 Green Island Bush Survey District and Part Sections 56, 57 and 58 Ocean Beach Survey District as LIMITED AS TO PARCELS

Part Lot 1 DP 314013 and Part Section 163 herein are subject to Section 6 Mining Act 1971

Subject to a walkway for the purposes of The New Zealand Walkways Act 1975 (in gross) over Part Section 163 herein marked A and D, over Part Section 145 marked B and over Part Sections 56, 57 and 58 marked F all on SO Plan 21351 in favour of Her Majesty the Queen created by Transfer 785390.4 - 9.8.1991 at 10:10 am

Subject to a right of way and right to convey electricity, water and telecommunications over part Lot 1 on DP 314013 marked A and B on DP 335315 created by Easement Instrument 6120894.4 - 19.8.2004 at 9:00 am

The easements created by Easement Instrument 6120894.4 are subject to Section 243 (a) Resource Management Act 1991

Subject to rights in gross to convey electricity and establish and maintain electricity transformers and ancillary equipment over part Lot 1 DP 314013 marked A and B on DP 335315 in favour of Aurora Energy Limited created by Easement Instrument 6341650.1 - 10.3.2005 at 9:00 am

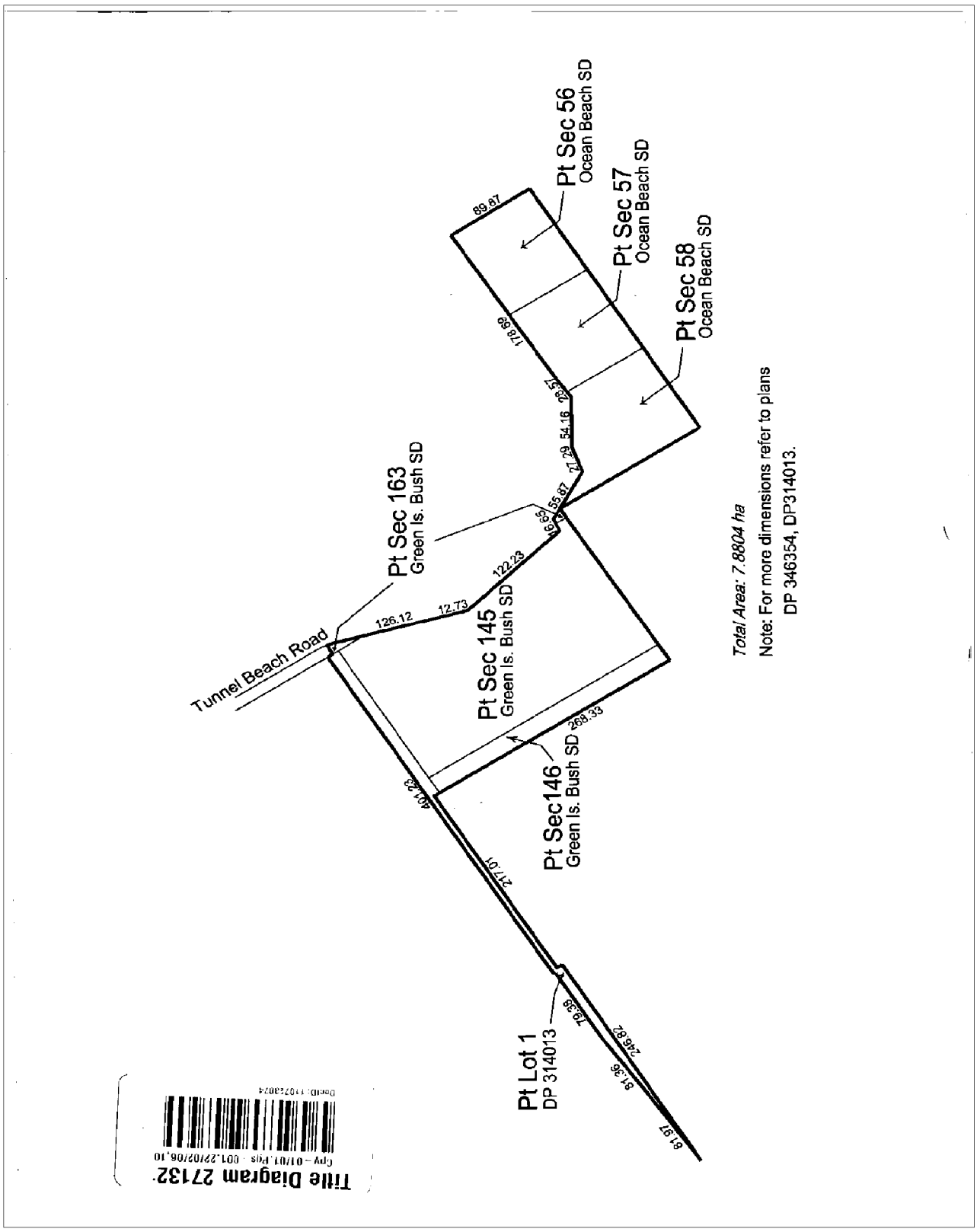
Subject to a right of way and rights to convey telecommunications, computer media, electricity and water over part Lot 1 DP 314013 marked A on DP 482467 created by Easement Instrument 9959643.1 - 29.1.2015 at 1:59 pm

Subject to a right (in gross) to convey electricity over part Lot 1 on DP 314013 marked A on DP 511074 in favour of Aurora Energy Limited created by Easement Instrument 10786315.3 - 12.5.2017 at 3:50 pm

Identifier **271321**

Subject to the Reserves Act 1977

Identifier **271321**



Appendix B – Design Drawings

Drawing Plotted: 19 Feb 2021 4:29 PM

DRAWING LIST

DRAWING NO.	DRAWING TITLE
3336298-CA-000	COVER SHEET AND DRAWING LIST
3336298-CA-010	LAYOUT PLAN
3336298-CA-011	TUNNEL BEACH RD ACCESS PATH LAYOUT PLAN
3336298-CA-012	DESIGN CONTOUR PLAN
3336298-CA-015	TYPICAL SECTIONS - SHEET 1 OF 2
3336298-CA-016	TYPICAL SECTIONS - SHEET 2 OF 2
3336298-CA-017	PAVEMENT DETAILS
3336298-CA-020	PROPOSED STORMWATER LAYOUT
3336298-CA-021	STORMWATER LONGITUDINAL SECTIONS
3336298-CA-022	STORMWATER OUTLET DETAIL
3336298-CA-030	VEHICLE TRACKING PLAN - SHEET 1 OF 2
3336298-CA-031	VEHICLE TRACKING PLAN - SHEET 2 OF 2
3336298-CA-032	VERTICAL TRACKING PROFILE
3336298-SE-010	RETAINING WALL SECTION AND DETAIL
3336298-SE-011	RETAINING WALL LONGSECTIONS

Beca

- CIVIL

Project No 3336298

DUNEDIN CITY COUNCIL
TUNNEL BEACH
CAR PARK

FOR RESOURCE CONSENT AND CLIENT REVIEW

Prepared for

DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

By
Beca

19 FEBRUARY 2021

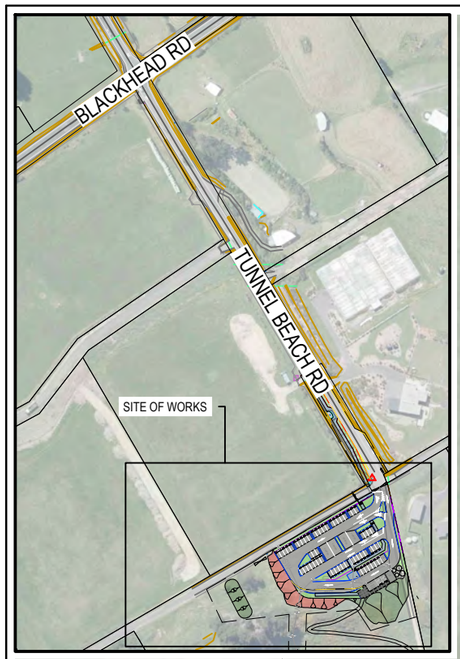
ORIGINAL DRAWING IN COLOUR

RESOURCE CONSENT
NOT FOR CONSTRUCTION

Drawing No.	Rev.
3336298-CA-000	B

Document No. 3336298-CA-000.DWG

Drawing Plotted: 19 Feb 2021 4:35 PM



LOCALITY PLAN
NTS

RESOURCE CONSENT
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
C	FOR RESOURCE CONSENT AND CLIENT REVIEW	IH	AS	JT	19.02.21
B	FOR RESOURCE CONSENT	JK	AS	JT	9.11.20
A	FOR CLIENT REVIEW	CG	AS	JT	30.10.20

Drawing Originator: Beca

Original Scale (A1) 1:250
Reduced Scale (A3) 1:500

Design	CG	18.09.20	Approved For Construction*
Drawn	CG	18.09.20	
Dsg Verifier	QD	18.09.20	
Dwg Check	JK	18.09.20	Date

* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

Project: DUNEDIN CITY COUNCIL TUNNEL BEACH CAR PARK

Title: LAYOUT PLAN

Discipline: CIVIL

Drawing No.: 3336298-CA-010

Rev.: C

DO NOT SCALE

IF IN DOUBT ASK.

www.beca.com

Document No. 3336298-CA-010.DWG

Drawing Plotted: 19 Feb 2021 4:29 PM

www.beca.com

RESOURCE CONSENT
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
C	FOR RESOURCE CONSENT AND CLIENT REVIEW	IH	AS	JT	19.02.21
B	FOR RESOURCE CONSENT	JK	AS	JT	9.11.20
A	FOR CLIENT REVIEW	CG	AS	JT	30.10.20

Drawing Originator: Beca

Original Scale (A1)	1:250	Design	CG	18.09.20	Approved For Construction*
Reduced Scale (A3)	1:500	Drawn	CG	18.09.20	
		Dsg Verifier	QD	18.09.20	
		Dwg Check	JK	18.09.20	Date

* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

Project: DUNEDIN CITY COUNCIL TUNNEL BEACH CAR PARK

Title: TUNNEL BEACH RD ACCESS PATH LAYOUT PLAN

Discipline: CIVIL

Drawing No.: 3336298-CA-011

Rev.: C

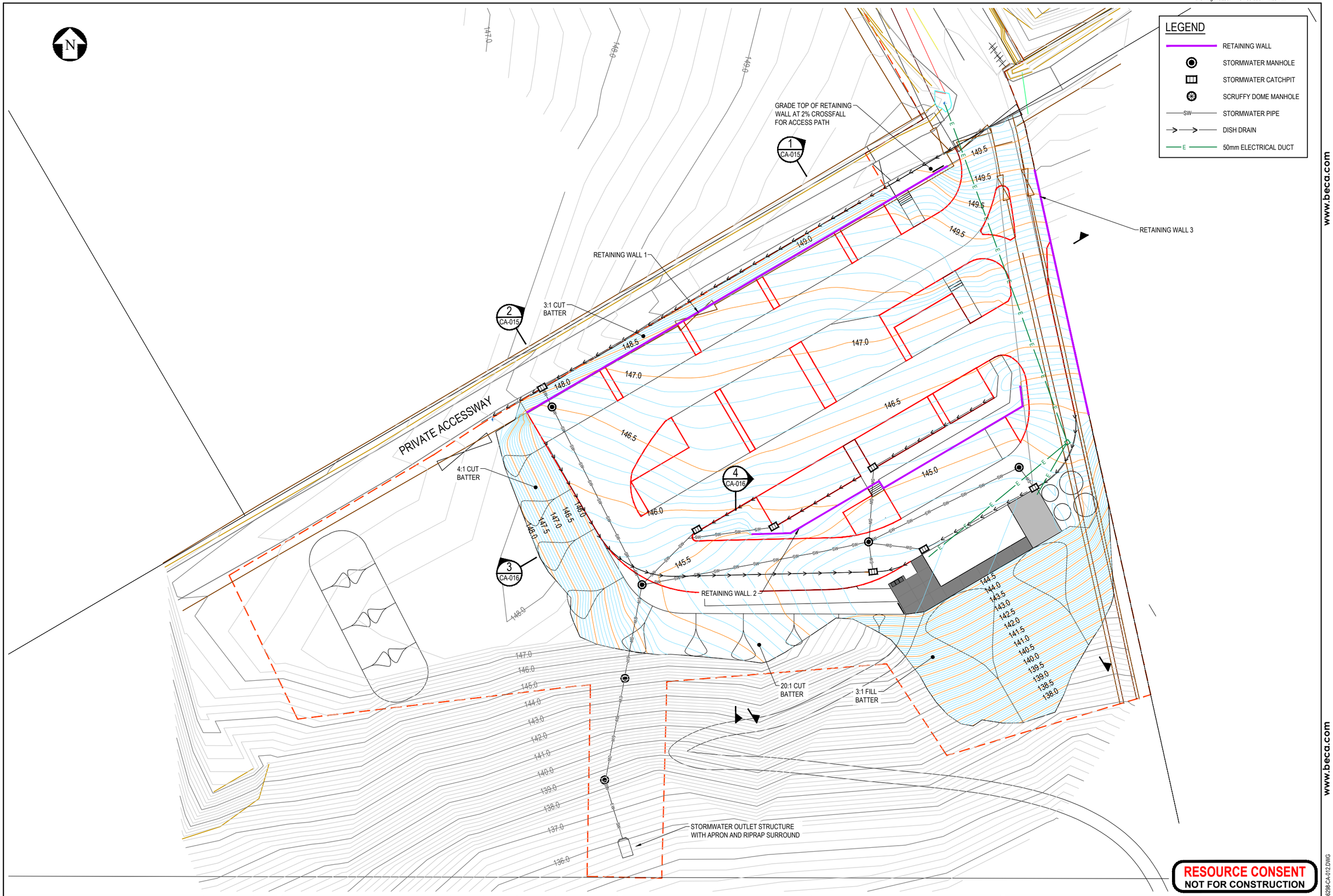
DO NOT SCALE

IF IN DOUBT ASK.

www.beca.com

Document No. 3336298-CA-011.DWG

Drawing Plotted: 19 Feb 2021 4:29 PM



RESOURCE CONSENT
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
C	FOR RESOURCE CONSENT AND CLIENT REVIEW	IH	AS	JT	19.02.21
B	FOR RESOURCE CONSENT	JK	AS	JT	9.11.20
A	FOR CLIENT REVIEW	CG	AS	JT	30.10.20

Drawing Originator: Beca

Original Scale (A1) 1:250
Reduced Scale (A3) 1:500

Design	CG	18.09.20	Approved For Construction*
Drawn	CG	18.09.20	
Dsg Verifier	MC	18.09.20	
Dwg Check	JK	18.09.20	Date

* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

Project: DUNEDIN CITY COUNCIL TUNNEL BEACH CAR PARK

Title: DESIGN CONTOUR PLAN

Discipline: CIVIL

Drawing No.: 3336298-CA-012

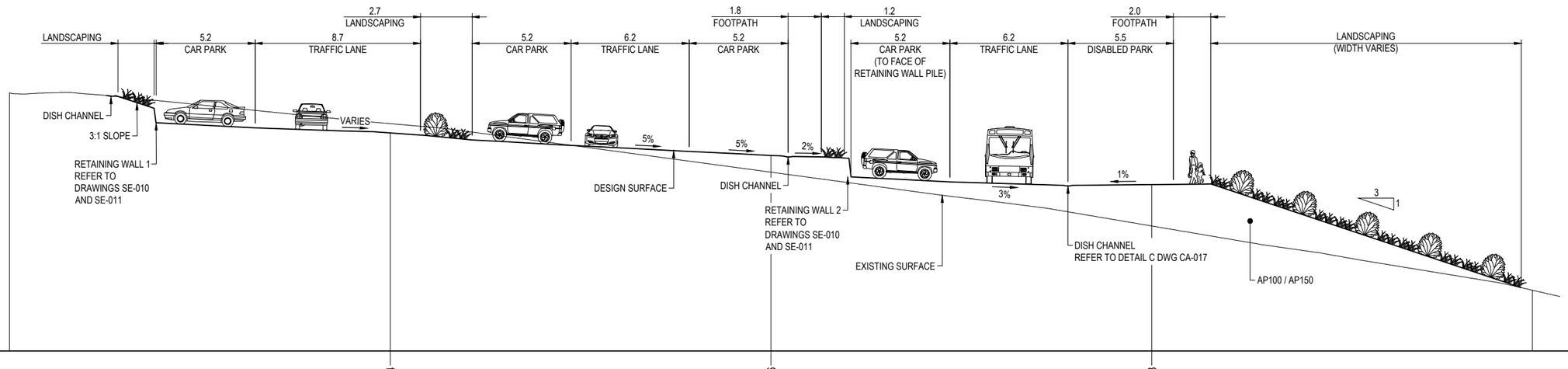
Rev.: C

DO NOT SCALE

IF IN DOUBT ASK.

www.beca.com

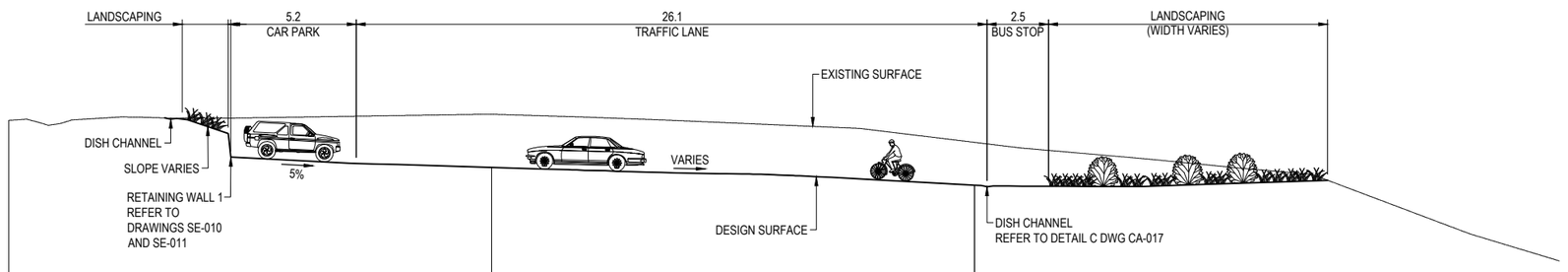
Document No. 3336298-CA-012.DWG



DATUM RL 136

DESIGN LEVELS		147.44	146.26	144.73
EXISTING LEVELS	149.55	147.93	145.38	142.56	139.19
CHAINAGE	0	20	40	60	80

1 CA-012 TYPICAL SECTION
SCALE 1:125 AT A1



DATUM RL 136

DESIGN LEVELS		146.23	145.50	
EXISTING LEVELS	148.17	148.43	147.27	143.68
CHAINAGE	0	20	40	60

2 CA-012 TYPICAL SECTION
SCALE 1:125 AT A1

RESOURCE CONSENT
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
C	FOR RESOURCE CONSENT AND CLIENT REVIEW	IH	AS	JT	19.02.21
B	FOR RESOURCE CONSENT	JK	AS	JT	9.11.20
A	FOR CLIENT REVIEW	CG	AS	JT	30.10.20

Drawing Originator: Beca

Original Scale (A1) 1:125
Reduced Scale (A3) 1:250

Design	CG	18.09.20	Approved For Construction*
Drawn	CG	18.09.20	
Dsg Verifier	QD	18.09.20	
Dwg Check	JK	18.09.20	Date

* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

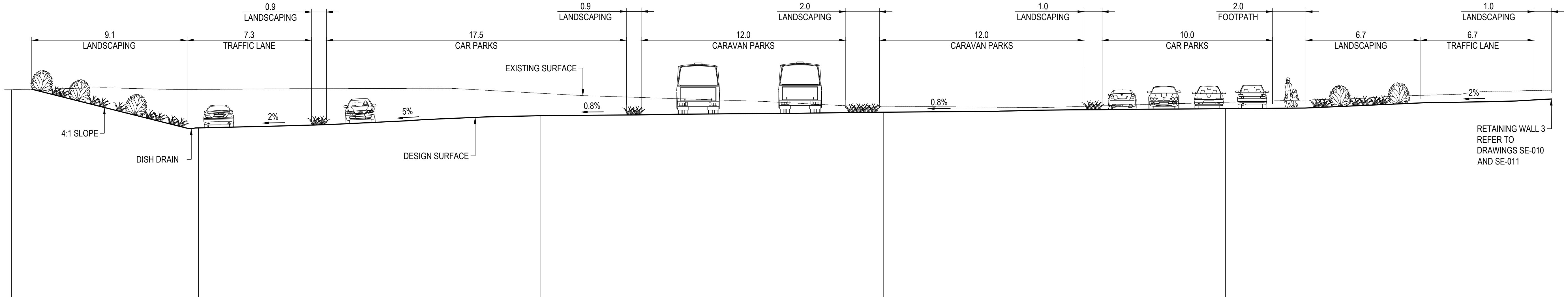
Project: DUNEDIN CITY COUNCIL
TUNNEL BEACH
CAR PARK

Title: TYPICAL SECTIONS
SHEET 1 OF 2

Discipline: CIVIL
Drawing No.: 3336298-CA-015
Rev.: C

DO NOT SCALE

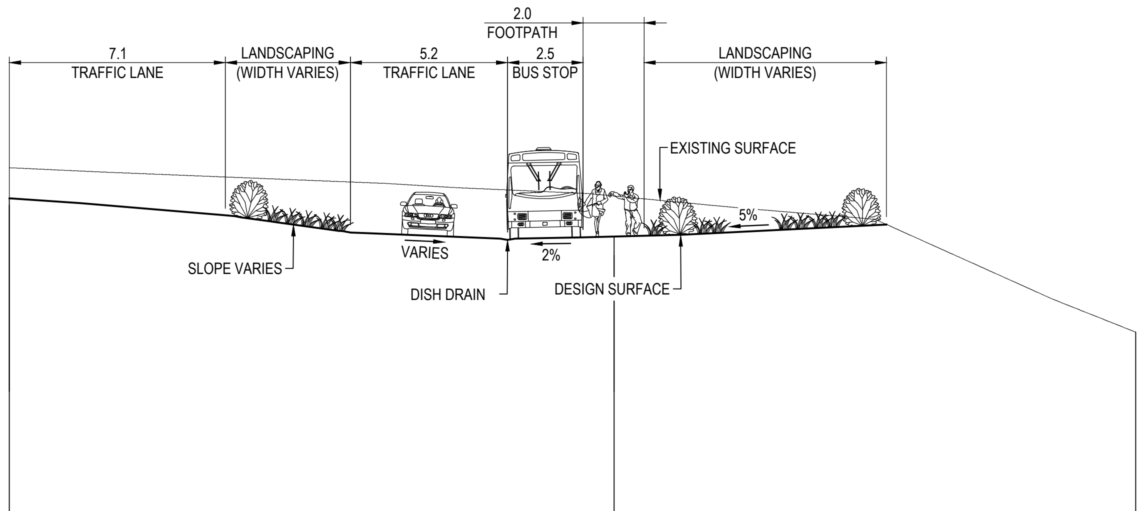
IF IN DOUBT ASK.



DATUM RL 136

DESIGN LEVELS		145.89	146.60	146.81	147.01
EXISTING LEVELS	148.08	148.13	147.91	147.16	147.39
CHAINAGE	9.05	20	40	60	80

3 TYPICAL SECTION
CA-012
SCALE 1:125 AT A1



DATUM RL 136

DESIGN LEVELS	146.52	145.26
EXISTING LEVELS	147.53	146.59
CHAINAGE	0	20

4 TYPICAL SECTION
CA-012
SCALE 1:125 AT A1

RESOURCE CONSENT
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
C	FOR RESOURCE CONSENT AND CLIENT REVIEW	IH	AS	JT	19.02.21
B	FOR RESOURCE CONSENT	JK	AS	JT	9.11.20
A	FOR CLIENT REVIEW	CG	AS	JT	30.10.20

Drawing Originator: Beca

Original Scale (A1) 1:125	Design	CG	18.09.20	Approved For Construction*
	Drawn	CG	18.09.20	
Reduced Scale (A3) 1:250	Dsg Verifier	QD	18.09.20	
	Dwg Check	JK	18.09.20	Date
	* Refer to Revision 1 for Original Signature			

Client: DUNEDIN CITY COUNCIL kaunihera a-rohe o Ōtepoti

Project: DUNEDIN CITY COUNCIL
TUNNEL BEACH
CAR PARK

Title: TYPICAL SECTIONS
SHEET 2 OF 2

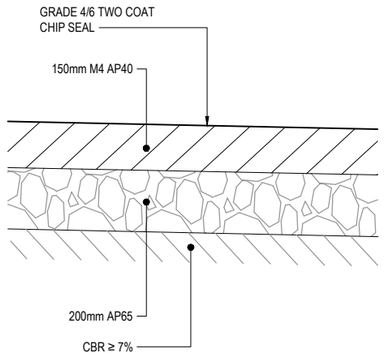
Discipline: CIVIL

Drawing No. 3336298-CA-016 Rev. C

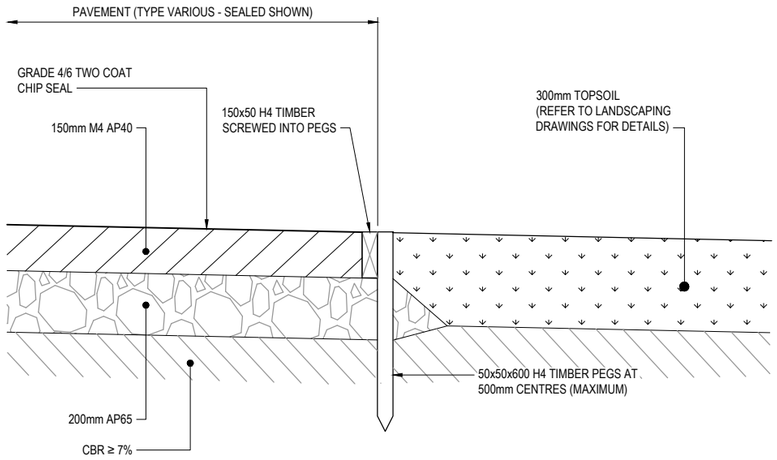
Document No. 3336298-CA-016.DWG

DO NOT SCALE

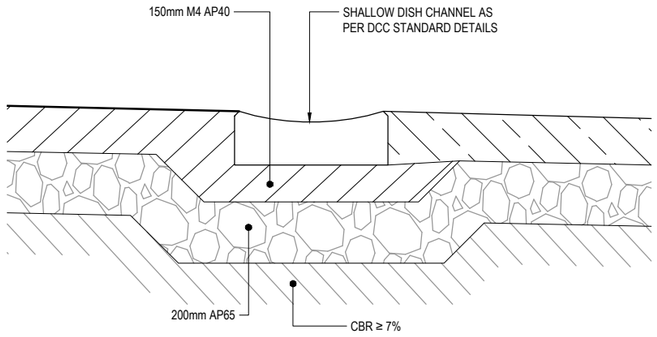
IF IN DOUBT ASK.



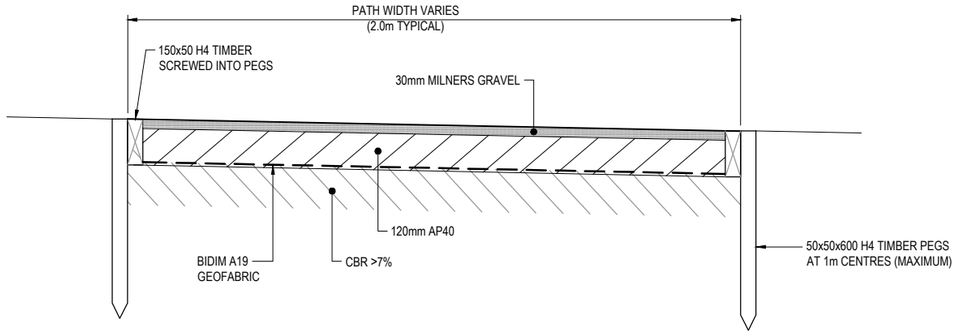
A PAVEMENT DETAIL
SCALE 1:10 AT A1



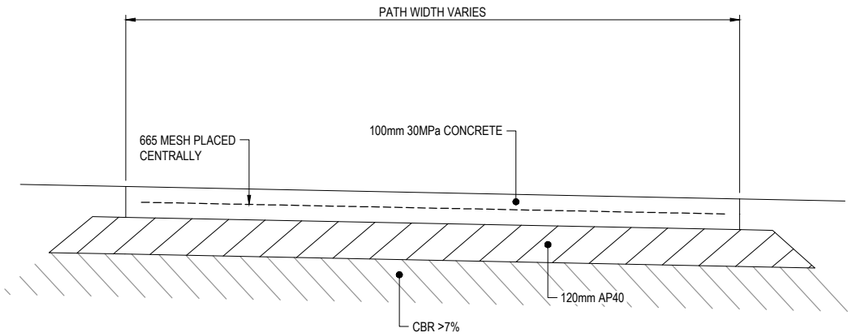
B PAVEMENT & LANDSCAPE INTERFACE DETAIL
SCALE 1:10 AT A1



C DISH CHANNEL DETAIL
SCALE 1:10 AT A1



D MILNERS FOOTPATH DETAIL
SCALE 1:10 AT A1



E CONCRETE FOOTPATH DETAIL
SCALE 1:10 AT A1

No.	Revision	By	Chk	Appd	Date
A	FOR RESOURCE CONSENT AND CLIENT REVIEW	IH	AS	JT	19.02.21

Drawing Originator: Beca

Original Scale (A1) AS SHOWN	Design	RS	01.02.21	Approved For Construction*
	Drawn	AS	01.02.21	
Reduced Scale (A3) HALF SHOWN	Dsg Verifier	BS	02.02.21	
	Dwg Check	-	-	Date

* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

Project: DUNEDIN CITY COUNCIL
TUNNEL BEACH
CAR PARK

Title: PAVEMENT DETAILS

Discipline: CIVIL

Drawing No.: 3336298-CA-017

Rev.: A

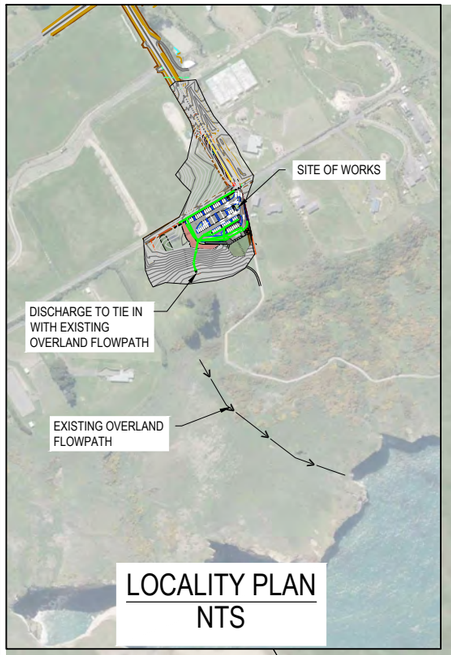
RESOURCE CONSENT
NOT FOR CONSTRUCTION

DO NOT SCALE

IF IN DOUBT ASK.

www.beca.com

Drawing Plotted: 19 Feb 2021 4:30 PM



LOCALITY PLAN
NTS

NOTES

1. ALL SUMPS TO BE DCC N.O 2 SINGLE SUMP WITH N.O 2 CAST IRON FRAME AND GRATE (OR SIMILAR).
2. ALL MANHOLES TO BE DN1050 WITH CLASS C TRAFFICABLE LIDS.
3. ALL DISH CHANNELS TO BE AS PER DCC CODE OF SUBDIVISION AND DEVELOPMENT DRAWING RS-030.
4. ALL SUMP LATERALS TO BE DN225 PVC-U SN16.
5. PIPE BEDDING AND BACKFILL TO BE AS PER DCC CODE OF SUBDIVISION AND DEVELOPMENT STANDARD DRAWING 10324.
6. PRECAST MANHOLE BEDDING AND SURROUND TO BE AS PER DCC CODE OF SUBDIVISION AND DEVELOPMENT STANDARD DRAWING 10329.
7. ALL WORKS ARE TO BE IN ACCORDANCE WITH THE SPECIFICATION.

LEGEND

- STORMWATER MANHOLE
- SCRUFFY DOME MANHOLE
- SINGLE SUMP/ MUDTANK
- DISH CHANNEL
- KERB AND CHANNEL
- STORMWATER PIPE
- EXISTING 1m CONTOURS
- PROPOSED 100mm CONTOURS
- PROPOSED 500mm CONTOURS

KERB AND CHANNEL AT EDGE OF LANDSCAPING TO CUT OFF ROAD RUNOFF. REFER TO DCC CODE OF SUBDIVISION AND DEVELOPMENT DRAWING RS-030 FOR DETAIL.

REFER TO DETAIL 1, DRAWING 3336298-CA-021 FOR LONGITUDINAL SECTION.

REFER TO DETAIL 2, DRAWING 3336298-CA-021 FOR LONGITUDINAL SECTION.

PRECAST HEADWALL FOLLOWED BY SCOUR PROTECTION. REFER TO DRAWING 3336298-CA-022 FOR DETAIL.

SWMH-01
SWMH-02
SWMH-03
SWMH-03.1
SWMH-04
SWMH-05

DN225 PVC-U SN16
DN300 PVC-U SN16

SEE NOTE 1
SEE NOTE 2
SEE NOTE 3
SEE NOTE 4

CAMPER
MC
BUS STOP
CONCESSION AREA
WC

LAYOUT
SCALE 1:500 (A3)

RESOURCE CONSENT
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
C	FOR RESOURCE CONSENT AND CLIENT REVIEW	IH	AS	JT	19.02.21
B	FOR RESOURCE CONSENT	JK	MC	JT	9.11.20
A	FOR CLIENT REVIEW	JB	MC	JT	30.10.20

Drawing Originator: Beca

Original Scale (A1) 1:250
Reduced Scale (A3) 1:500

Design	JB	04.09.20	Approved For Construction*
Drawn	JB	04.09.20	
Dsg Verifier	MC	17.09.20	
Dwg Check	JK	17.09.20	Date

* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

Project: DUNEDIN CITY COUNCIL TUNNEL BEACH CAR PARK

Title: PROPOSED STORMWATER LAYOUT

Discipline: CIVIL

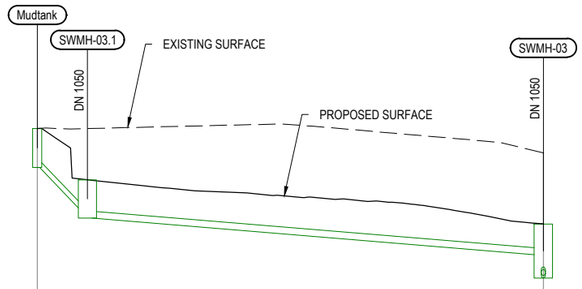
Drawing No.: 3336298-CA-020 Rev: C

DO NOT SCALE

IF IN DOUBT ASK.

www.beca.com

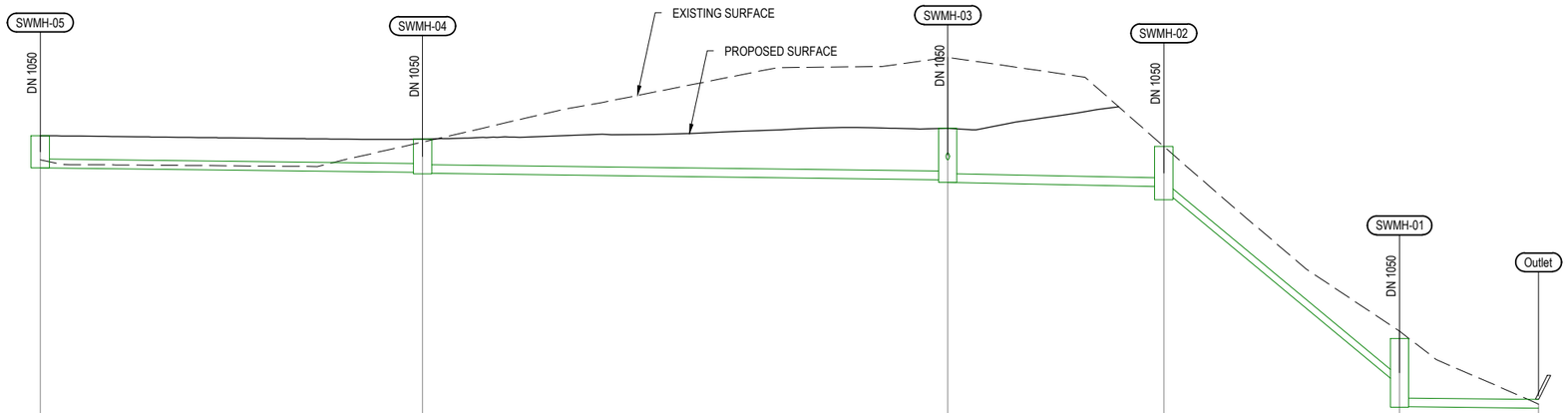
Document No. 3336298-CA-020.DWG



DATUM 140.00

LID LEVEL	148.19	146.52	145.08
PIPE INVERT LEVEL	147.00	145.29 145.28	144.05
PIPE COVER	0.95	0.99 1.00	0.79
PIPE SIZE AND CLASS		DN 225 PVC-U SN16	DN 225 PVC-U SN16
PIPE GRADE		1:2 (52.35%)	1:24 (4.13%)
DISTANCE		3.27	29.74

1 / 020 MUDTANK TO SWMH-03
1:200-HOR 1:100 VERT



DATUM 135.00

LID LEVEL	144.84	144.72	145.08	144.49	138.21	136.43
PIPE INVERT LEVEL	143.79	143.64 143.61	143.39	143.31 143.17	143.06 136.66	135.98 135.93
PIPE COVER	0.75	0.78 0.81	1.38	3.78 1.01	1.12 1.49	2.17 -0.16
PIPE SIZE AND CLASS	DN 300 PVC-U SN16		DN 300 PVC-U SN16	DN 300 PVC-U SN16	DN 300 PVC-U SN16	DN 300 PVC-U SN16
PIPE GRADE	1:168 (0.60%)		1:160 (0.63%)	1:99 (1.01%)	1:2 (41.50%)	1:178 (0.56%)
DISTANCE	25.00		34.35	14.13	15.41	9.10

2 / 020 SWMH-06 TO OUTLET
1:200-HOR 1:100 VERT

RESOURCE CONSENT
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
A	FOR RESOURCE CONSENT AND CLIENT REVIEW	IH	AS	JT	19.02.21

Drawing Originator: Beca

Original Scale (A1) AS SHOWN
Reduced Scale (A3) 1/2 SHOWN

Design	JB	15.01.21	Approved For Construction*
Drawn	JB	15.01.21	
Dsg Verifier	MC	15.01.21	
Dwg Check	JK	15.01.21	Date

* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

Project: DUNEDIN CITY COUNCIL TUNNEL BEACH CAR PARK

Title: STORMWATER LONGITUDINAL SECTIONS

Discipline: CIVIL

Drawing No.: 3336298-CA-021

Rev.: A

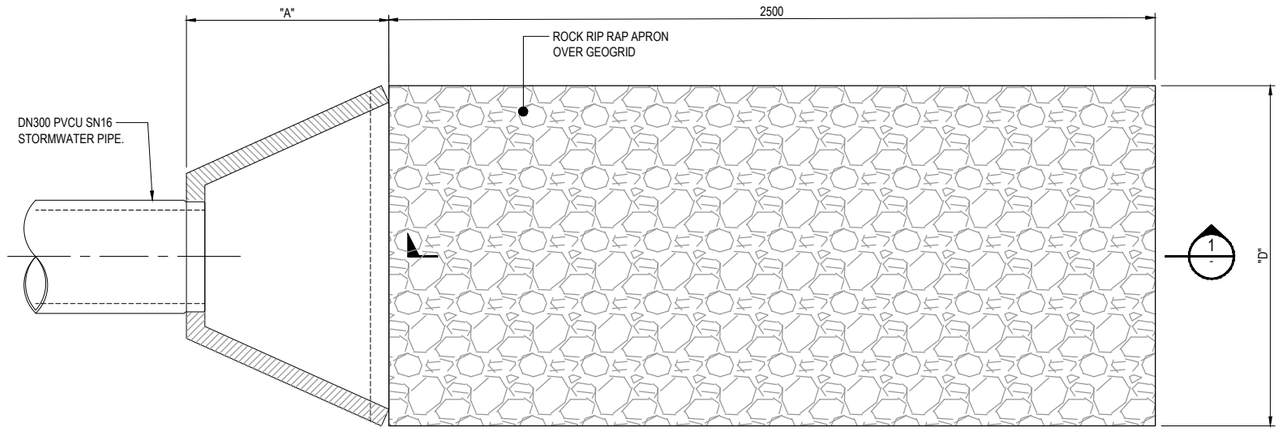
DO NOT SCALE

IF IN DOUBT ASK.

NOTES:

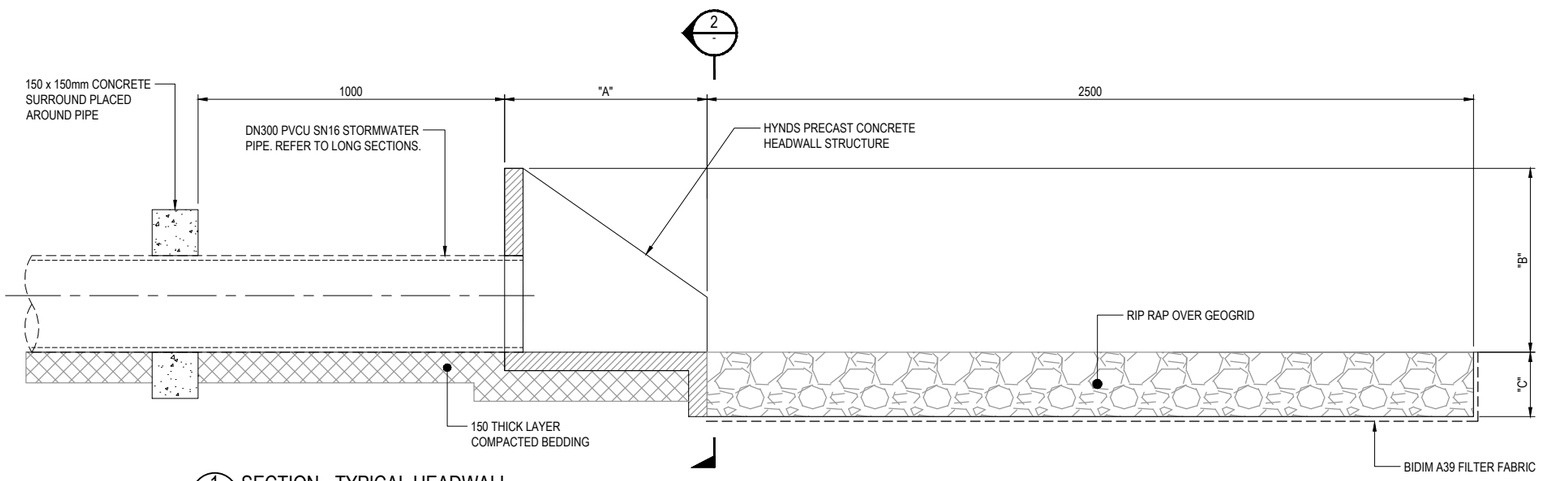
1. DIMENSIONS LISTED ARE MINIMUMS ONLY.
2. RIP RAP TO BE LAID ON BIDIM GEOTEXTILE (OR SIMILAR APPROVED). UNLESS OTHERWISE SPECIFIED THE FOLLOWING GRADES SHALL BE USED:
   -REFER TO SPECIFICATION.
   -A49 FOR RIP RAP WITH D50 OF GREATER THAN 150mm.

PRECAST WINGWALL TYPE					
PIPE DIA. (DN)	HEADWALL STRUCTURE (HYNDS)	`A` (mm)	`B` (mm)	`C` (mm)	`D` (mm)
300	300 SERIES	660	600	210	1110



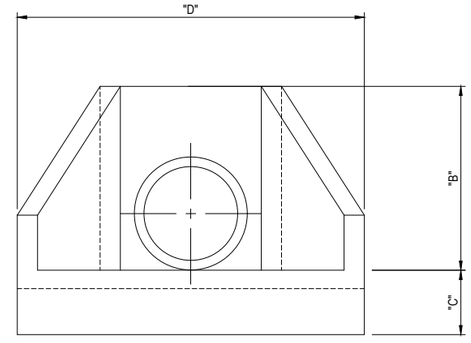
PLAN - HEADWALL RIP-RAP

SCALE 1:10



1 - SECTION - TYPICAL HEADWALL

SCALE 1:10



2 - SECTION

SCALE 1:10

RESOURCE CONSENT
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
A	FOR RESOURCE CONSENT AND CLIENT REVIEW	IH	AS	JT	19.02.21

Drawing Originator: Beca

Original Scale (A1) AS SHOWN	Design	JB	15.01.21	Approved For Construction*
	Drawn	JB	15.01.21	
Reduced Scale (A3) 1/2 SHOWN	Dsg Verifier	MC	15.01.21	
	Dwg Check	JK	15.01.21	Date

* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

Project: DUNEDIN CITY COUNCIL
TUNNEL BEACH
CAR PARK

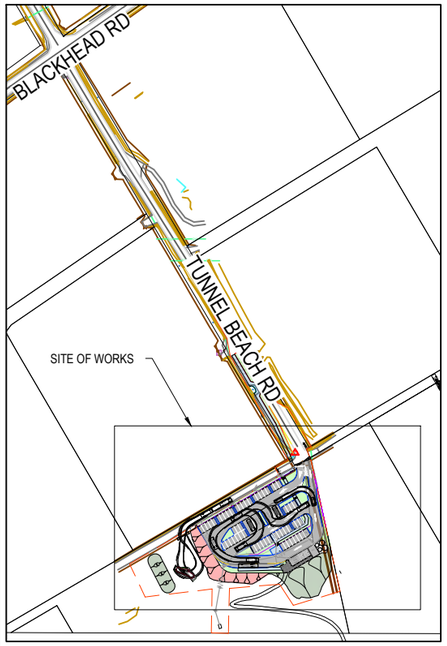
Title: STORMWATER
OUTLET DETAIL

Discipline: CIVIL

Drawing No.: 3336298-CA-022

Rev.: A

Drawing Plotted: 23 Feb 2021 2:39 PM



LOCALITY PLAN
NTS

LEGEND

VEHICLE BODY OUTLINE

500mm CLEARANCE ENVELOPE

www.beca.com

RESOURCE CONSENT
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
C	FOR RESOURCE CONSENT AND CLIENT REVIEW	IH	AS	JT	19.02.21
B	FOR RESOURCE CONSENT	JK	AS	JT	9.11.20
A	FOR CLIENT REVIEW	CG	AS	JT	30.10.20

Drawing Originator: Beca

Original Scale (A1) 1:250
Reduced Scale (A3) 1:500

Design	CG	18.09.20	Approved For Construction*
Drawn	CG	18.09.20	
Dsg Verifier	QD	18.09.20	
Dwg Check	JK	18.09.20	Date

* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

Project: DUNEDIN CITY COUNCIL
TUNNEL BEACH
CAR PARK

Title: VEHICLE TRACKING PLAN
SHEET 1 OF 2

Discipline: CIVIL

Drawing No.: 3336298-CA-030

Rev.: C

Document No. 3336298-CA-030.DWG

www.beca.com

DO NOT SCALE

IF IN DOUBT ASK.

Drawing Plotted: 23 Feb 2021 2:39 PM

LOCALITY PLAN
NTS

LEGEND

VEHICLE BODY OUTLINE

500mm CLEARANCE ENVELOPE

www.beca.com

No.	Revision	By	Chk	Appd	Date
C	FOR RESOURCE CONSENT AND CLIENT REVIEW	IH	AS	JT	19.02.21
B	FOR RESOURCE CONSENT	JK	AS	JT	9.11.20
A	FOR CLIENT REVIEW	CG	AS	JT	30.10.20

Drawing Originator: Beca

Original Scale (A1) 1:250
Reduced Scale (A3) 1:500

Design	CG	18.09.20	Approved For Construction*
Drawn	CG	18.09.20	
Dsg Verifier	QD	18.09.20	
Dwg Check	JK	18.09.20	Date

* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

Project: DUNEDIN CITY COUNCIL
TUNNEL BEACH
CAR PARK

Title: VEHICLE TRACKING PLAN
SHEET 2 OF 2

Discipline: CIVIL

Drawing No.: 3336298-CA-031

Rev.: C

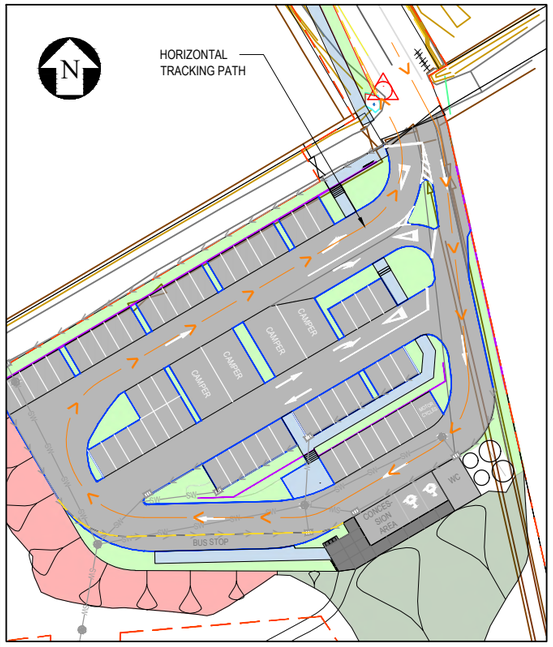
RESOURCE CONSENT
NOT FOR CONSTRUCTION

DO NOT SCALE

IF IN DOUBT ASK.

www.beca.com

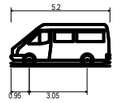
Document No. 3336298-CA-031.DWG



PLAN
NTS

LEGEND
- DESIGN SURFACE
- VEHICLE BODY OUTLINE
- 100mm CLEARANCE LINE

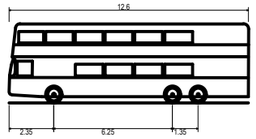
99th PERCENTILE CAR / VAN



B99 Vert Clearance (2004)

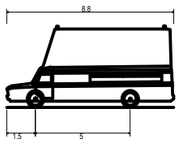
Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	2.200m
Min Body Ground Clearance	0.120m
Track Width	1.840m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	8.000m

12.5m BUS / COACH



Tour Coach

Overall Length	12.600m
Overall Width	2.500m
Overall Body Height	4.164m
Min Body Ground Clearance	0.335m
Track Width	2.500m
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	12.500m



Ambulance (8.8 m)

Overall Length	8.800m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.337m
Track Width	2.500m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	12.500m

8.8m SERVICE VEHICLE

RESOURCE CONSENT
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
C	FOR RESOURCE CONSENT AND CLIENT REVIEW	IH	AS	JT	23.03.21
B	FOR RESOURCE CONSENT AND CLIENT REVIEW	IH	AS	JT	05.03.21
A	FOR RESOURCE CONSENT AND CLIENT REVIEW	IH	AS	JT	19.02.21

Drawing Originator: Beca

Original Scale (A1) NTS	Design	IH	09.02.21	Approved For Construction*
Reduced Scale (A3) NTS	Drawn	IH	09.02.21	
	Dsg Verifier	AS	09.02.21	
	Dwg Check	JT	09.02.21	Date

* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

Project: DUNEDIN CITY COUNCIL TUNNEL BEACH CAR PARK

Title: VERTICAL TRACKING PROFILE

Discipline: CIVIL

Drawing No.: 3336298-CA-032 Rev.: C

DO NOT SCALE

IF IN DOUBT ASK.

www.beca.com

Drawing Plotted: 02 Dec 2021 9:05 AM

NOTES

1. ALL SIGNS AND MARKINGS TO COMPLY WITH NZTA MANUAL OF SIGNS AND MARKINGS (MOTSAM).
2. ALL MARKINGS TO COMPLY WITH NZTA M7 AND NZTA P22.

TUNNEL BEACH RD

JOIN LINE - REFER SHEET 3336298-CA-041

'NO STOPPING AT ALL TIMES' LINE

PRIVATE ACCESSWAY

'CAMPER' TO BE MARKED WITHIN PARKING BAYS

CAMPER

CAMPER

CAMPER

CAMPER

'NO STOPPING AT ALL TIMES' LINE

'NO STOPPING AT ALL TIMES' LINE

'NO STOPPING AT ALL TIMES' LINE

R6-51 SIGN ATTACHED TO RETAINING WALL

MOTOR CYCLES

'MOTORCYCLES' TO BE MARKED WITHIN PARKING BAY

LHD R6-53.2 SIGN WITH 5 MINUTE LIMIT

LHD R6-53.2 SIGN WITH 5 MINUTE LIMIT

8.7m
5.1m
3.6m
5.2m
6.2m
10.4m
6.0m
4.9m
2.8m
7.5m
5.5m

RESOURCE CONSENT
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
A	FOR RESOURCE CONSENT	JK	AS	JT	02.12.21

Drawing Originator: Beca

Original Scale (A1) 1:200	Design	AJS	24.05.21
	Drawn	AJS	24.05.21
Reduced Scale (A3) 1:400	Dsg Verifier	RS	17.06.21
	Dwg Check	RS	17.06.21

Approved For Construction* Date

* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

Project: DUNEDIN CITY COUNCIL TUNNEL BEACH CAR PARK

Title: SIGNAGE AND MARKING PLAN SHEET 1 OF 2

Discipline: CIVIL

Drawing No.: 3336298-CA-040

Rev.: A

DO NOT SCALE

IF IN DOUBT ASK.

www.beca.com

www.beca.com

Document No. 3336298-CA-040.DWG

Drawing Plotted: 02 Dec 2021 9:06 AM

NOTES

1. ALL SIGNS AND MARKINGS TO COMPLY WITH NZTA MANUAL OF SIGNS AND MARKINGS (MOTSAM).
2. ALL MARKINGS TO COMPLY WITH NZTA M7 AND NZTA P22.

'NO STOPPING AT ALL TIMES' LINE

MASK EXISTING EDGE LINE MARKING

MASK EXISTING EDGE LINE MARKING

TUNNEL BEACH RD

'NO STOPPING AT ALL TIMES' LINE

MASK EXISTING EDGE LINE MARKING

MASK EXISTING EDGE LINE MARKING

JOIN LINE - REFER SHEET 3336298-CA-040

PRIVATE ACCESSWAY

RESOURCE CONSENT
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
A	FOR RESOURCE CONSENT	JK	AS	JT	02.12.21

Drawing Originator: Beca

Original Scale (A1) 1:200
Reduced Scale (A3) 1:400

Design	AJS	24.05.21	Approved For Construction*
Drawn	AJS	24.05.21	
Dsg Verifier	RS	17.06.21	
Dwg Check	RS	17.06.21	Date

* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

Project: DUNEDIN CITY COUNCIL TUNNEL BEACH CAR PARK

Title: SIGNAGE AND MARKING PLAN SHEET 2 OF 2

Discipline: CIVIL

Drawing No.: 3336298-CA-041

Rev.: A

DO NOT SCALE

IF IN DOUBT ASK.

www.beca.com

Document No. 3336298-CA-041.DWG

Drawing Plotted: 02 Dec 2021 9:06 AM

LEGEND

TV - TERMINAL VENT
FWG - FLOOR WASTE GULLEY
IP - INSPECTION POINT
IB - INSPECTION BEND

NOTES

1. DRAINAGE PIPES TO BE LAID TO AS/NZS 3500.
2. 25mm (MIN) BRASS GATE VALVE TO BE INSTALLED ON EACH TANK.
3. SEWER PIPE WORK WITHIN THE TOILET UNIT IS ABOVE FOUNDATION / FLOOR LEVEL.

SW
SW
SW
SW

IB
SS SS SS SS
100mm uPVC SN16 SEWER PIPE

100mm uPVC SN16 SEWER PIPE
100mm uPVC SN16 SEWER PIPE
FWG
40Ø
TV
50Ø
IB
100mm uPVC SN6
2x 45° ELBOWS TO BE USED ON CONNECTION FOR EASE OF RODDING
IP
50Ø
100mm uPVC SN6
IB
100mm uPVC SN16 SEWER PIPE
FWG
40Ø
W W W
32mm MDPE WATER PIPE

10,000L BURIED SEPTIC TANK (2.45m DIAMETER) SUPPLIED BY OTHERS

35,000L WATER TANK (3.5m DIAMETER) SUPPLIED BY OTHERS - TO BE PARTIALLY BURIED TO A DEPTH OF 1m (WITH THE REMAINDER ABOVE GROUND)

100mm uPVC SN16 SEWER PIPE
W W W
32mm MDPE WATER PIPE

10,000L BURIED SEPTIC TANK (2.45m DIAMETER) SUPPLIED BY OTHERS

35,000L WATER TANK (3.5m DIAMETER) SUPPLIED BY OTHERS - TO BE PARTIALLY BURIED TO A DEPTH OF 1m (WITH THE REMAINDER ABOVE GROUND)

7.50m

NEW TOILET BLOCK BASE TO BE AS PER SUPPLIER'S DETAILS (DWG CA-051), TO THE EXTENT SHOWN ON PLAN (5.00m BY 7.50m)

5.00m

RESOURCE CONSENT
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
A	FOR RESOURCE CONSENT	JK	AS	JT	02.12.21

Drawing Originator: Beca

Original Scale (A1) 1:25	Design	R. SMITH	JUNE 21
	Drawn	AS	JUNE 21
Reduced Scale (A3) 1:50	Dsg Verifier	J. HYSLOP	23.06.21
	Dwg Check	J. HYSLOP	23.06.21

Approved For Construction* Date
* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

Project: DUNEDIN CITY COUNCIL TUNNEL BEACH CAR PARK

Title: TOILET BLOCK SERVICES LAYOUT

Discipline: CIVIL

Drawing No.: 3336298-CA-050

Rev.: A

DO NOT SCALE

IF IN DOUBT ASK.

www.beca.com

Document No. 3336298-CA-050.DWG

www.beca.com

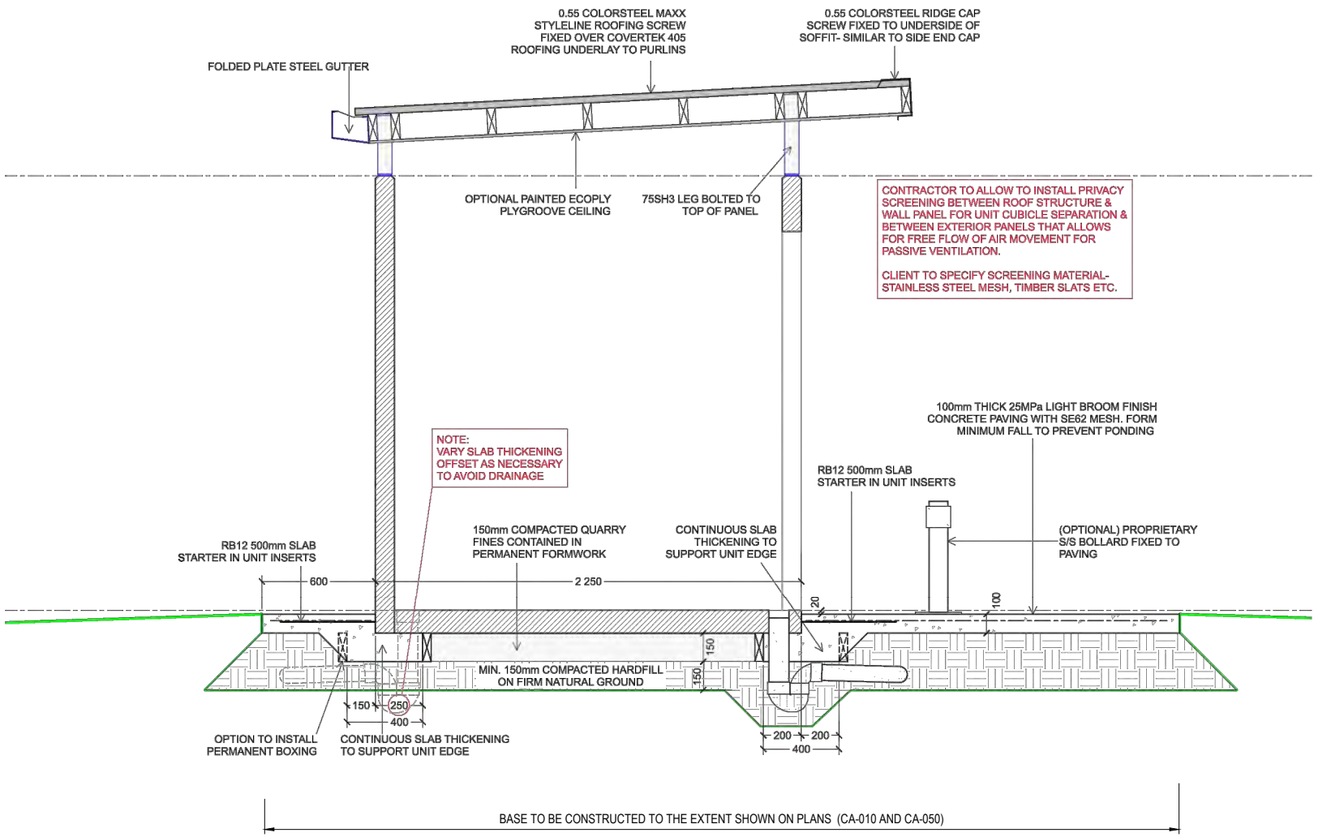


Image showing unit base contained within permanent formwork filled with compacted hard fill and ready for unit to be lowered into place.

GENERAL ON-SITE INSTALLATION INSTRUCTIONS

1. REMOVE TOPSOIL IN THE AREA BELOW PERMALOO AND CONCRETE PAVING TO LEVEL FIRM NATURAL GROUND-MINIMUM 100KPa BEARING CAPACITY.

2. INSTALL SUB-SOIL DRAINAGE PIPE & SERVICES AND PLACE A MINIMUM OF 150mm COMPACTED HARDFILL TO FORM UNIT & PAVING BASE.

3. INSTALL PERMANENT FORMWORK FRAME. FILL & LEVEL THE AREA WITHIN THE PERMANENT FORMWORK BELOW UNIT WITH COMPACTED HARD FILL AND SAND BLINDING (max 20mm) TO FINE TUNE LEVEL.

4. LOWER PERMALOO IN PLACE AND CONNECT TO DRAINAGE & SERVICES.

5. BOX UP FOR PAVING SLAB AND INSTALL REINFORCING STEEL AS SHOWN ON DRAWINGS.

6. INSTALL 100mm THICK 20MPa CONCRETE PAVING SLAB TO SECURE UNIT IN PLACE & TO FINISH.

REVISIONS KEY:

Issued for:	Date:
Structural review	2 OCT 2018
Client information	
Building consent	9 OCT 2018

PERMACRETE PERMANENT SOLUTIONS SINCE 1980

Project:
PERMALOO MULTI UNIT

Model No.:
PLM FL 2 AK R6

Drawing:
CROSS SECTION A + SITE INSTALLATION DETAILS

Revision: | Scale @ A2: 1:20

Dwg. No.:
A-4

Build only off plans marked 'CONSENT'. Read these plans in conjunction with the specification and other consultants drawings. Please check that you are using the current revision. Refer to the drawing register and transmittal form. Contractor must verify all dimensions & locations on site. Do not scale from plans. IF IN DOUBT ASK!

RESOURCE CONSENT
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
A	FOR RESOURCE CONSENT	JK	AS	JT	02.12.21

Drawing Originator: PERMACRETE

Original Scale (A1) NTS
Reduced Scale (A3) NTS

Design	-	-	Approved For Construction*
Drawn	-	-	
Dsg Verifier			
Dwg Check			Date

* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL kaunihera a-rohe o Ōtepoti

Project: DUNEDIN CITY COUNCIL TUNNEL BEACH CAR PARK

Title: TOILET BLOCK BASE DETAIL

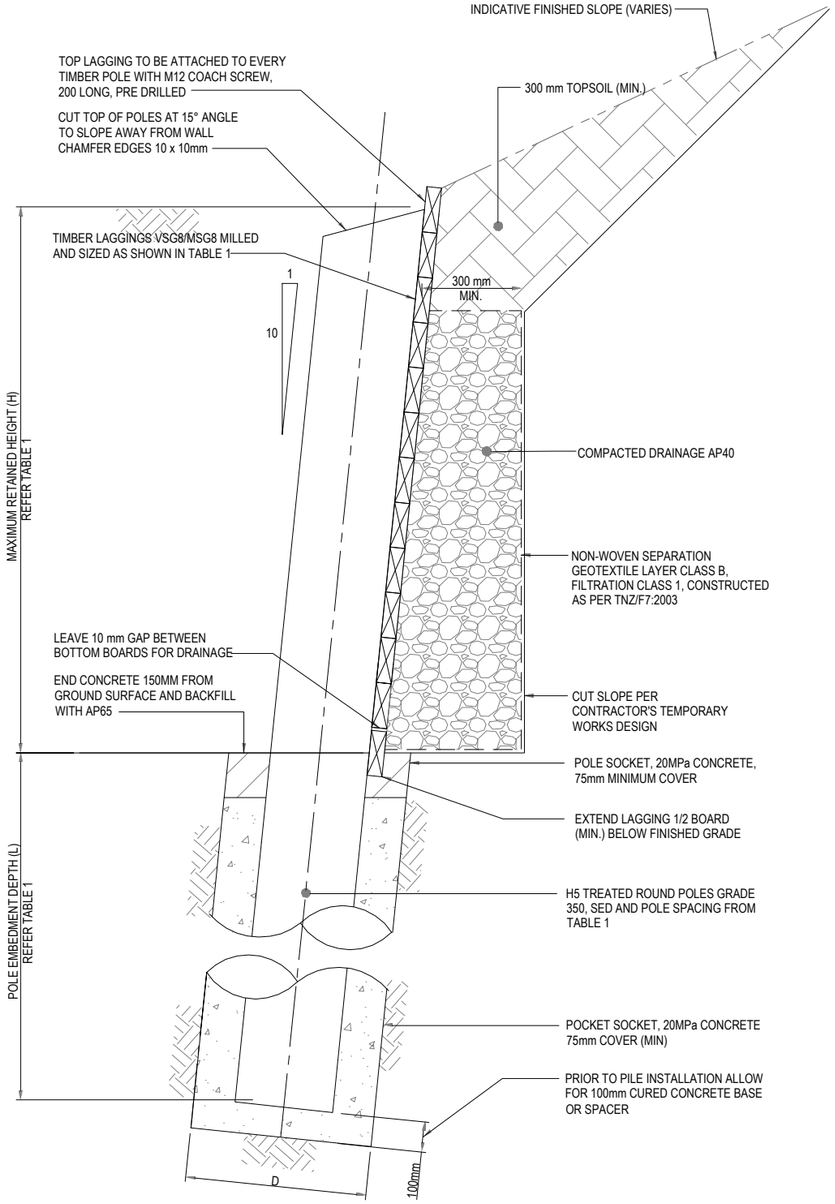
Discipline: CIVIL

Drawing No.: 3336298-CA-051 | Rev.: A

Document No. 3336298-CA-051.DWG

DO NOT SCALE

IF IN DOUBT ASK.



A - RETAINING WALL TYPICAL CROSS SECTION
SCALE 1:10 AT A1

TABLE 1: ROUND POLE RETAINING WALL DETAILS

MAX. RETAINED HEIGHT (H)	500mm	1000mm	1400mm
POLE DIAMETER	125mm	175mm	175mm
MIN. HOLE DIAMETER (D)	275mm	325mm	325mm
POLE EMBEDMENT (L)	1000mm	1700mm	2200mm
NOMINAL POLE LENGTH	1500mm	2700mm	3600mm
POLE SPACING (CENTRES)	1000mm	1100mm	1100mm
MIN. LAGGING DIMENSIONS	150mm x 50mm	150mm x 50mm	150mm x 50mm

NOTES

DESIGN:

1. CROSS SECTIONS ARE BASED ON INTERPOLATION OF DISCRETE INFORMATION. IF CONDITION AT THESE SECTIONS DIFFERS FROM THAT NOTED THIS SHOULD BE ADDRESSED WITH THE ENGINEER.
2. EXPECTED SUBSURFACE GROUND CONDITIONS: DENSE SILT (LOESS)

CONSTRUCTION:

1. DURING ALL PHASES OF WORK, THE ENGINEER SHALL BE INFORMED ON A DAILY BASIS OF THE WORK ANTICIPATED TO BE CARRIED OUT TO ENABLE CONSTRUCTION MONITORING TO BE UNDERTAKEN.
2. ENGINEER TO CONFIRM FOUNDATION CONDITIONS PRIOR TO PLACING POLE OR CONCRETE IN HOLE.
3. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL SERVICES PRIOR TO COMMENCING WORK AND SHALL INFORM THE ENGINEER SHOULD ANY CONFLICTS ARISE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO SERVICES CAUSED BY THEIR ACTIVITIES.
4. ALL TIMBER SHALL BE TREATED TO NZS 3604 HAZARD CLASS H5 AS SPECIFIED. TIMBER POLES AND POSTS SHALL BE RADIATA PINE OR CORSICAN PINE. THE POLES AND RAILS SHALL BE STRAIGHT AND FREE OF DECAY, KNOTS, SPLITS, CHECKS OR ANY OTHER DEFECT THAT MAY AFFECT THE STRENGTH OF THE POLE.
5. ALL CUT TIMBER SHALL BE TREATED VIA SITE APPLICATION OF A SUITABLE PRODUCT TO THE SUPPLIERS SPECIFICATION TO ACHIEVE A LEVEL OF TREATMENT EQUAL TO OR GREATER THAN THE MEMBER'S ORIGINAL LEVEL OF TREATMENT.
6. ALL POLES SHALL BE PLACED LARGE END INTO THE BASE OF THE HOLE.
7. BORED HOLES SHALL NOT REMAIN OPEN OVER NIGHT. HOLES MUST BE THOROUGHLY CLEANED OUT BEFORE PLACING CONCRETE. POLES SHALL BE INSTALLED AND CONCRETED IN A HIT AND MISS PATTERN WITHIN THE SAME DAY AS BORING.
8. POLES SHALL BE BRACED (WHERE NECESSARY) DURING AND AFTER CONCRETING SUCH THAT THE REQUIRED ALIGNMENT IS MAINTAINED.
9. ALL STEEL COMPONENTS SHALL BE HOT DIPPED GALVANISED IN ACCORDANCE WITH AS/NZS 4680, TO HDG 900 IN ACCORDANCE WITH AS/NZS 2312.
10. LAGGING JOINTS SHALL OCCUR AT POSTS ONLY. LAGGING JOINTS SHALL BE STAGGERED. LAGGING TO BE SECURED TO POSTS WITH Ø4.0mm, 200mm LONG NAILS.
11. MATERIAL FOR BACKFILLING BEHIND THE WALL SHALL BE DRAINAGE AP40 IN ACCORDANCE WITH THE SPECIFICATION. COMPACTION TO CONSIST OF M,AX. 120kg PLATE COMPACTOR WITHIN 2.0m OF WALL. BACKFILL TO BE PLACED AND COMPACTED IN HORIZONTAL LAYERS OF MAX. 200mm LAYER DEPTH. COMPACT TO 95% OF THE MAXIMUM DRY DENSITY OF THE MATERIAL.

POST CONSTRUCTION:

1. THE FOLLOWING LIMITATIONS APPLY TO TRENCHING NEXT TO RETAINING WALLS POST CONSTRUCTION:

- MAXIMUM 3m LENGTH OF TRENCH OPEN AT ANY GIVEN TIME.
- TRENCH SECTIONS TO BE EXCAVATED AND BACKFILLED ON THE SAME DAY.
- NO TRENCHING OR EXCAVATION ALLOWED WITHIN 2m IN FRONT OF WALL.
- TRENCHING OR EXCAVATION GREATER THAN 0.5m DEEP WILL REQUIRE CONSULTATION WITH THE ENGINEER.

RESOURCE CONSENT
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
A	FOR RESOURCE CONSENT AND CLIENT REVIEW	NS	AS	JT	19.02.21

Drawing Originator: Beca

Original Scale (A1)	1:10	Design	JW	01.10.20	Approved For Construction*
Reduced Scale (A3)	1:20	Drawn	NS	04.02.21	
		Dsg Verifier	JD	01.10.20	
		Dwg Check	AS	06.02.21	Date

* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

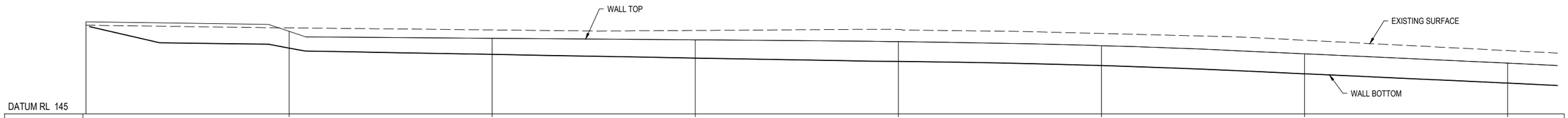
Project: DUNEDIN CITY COUNCIL TUNNEL BEACH CAR PARK

Title: RETAINING WALL SECTION AND DETAIL

Discipline: STRUCTURAL

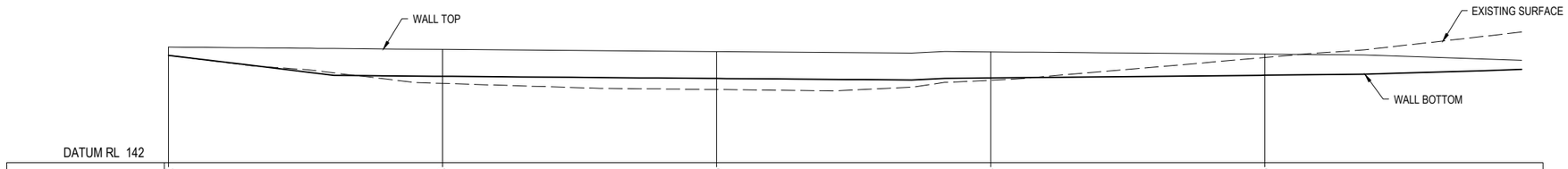
Drawing No.: 3336298-SE-010

Rev.: A



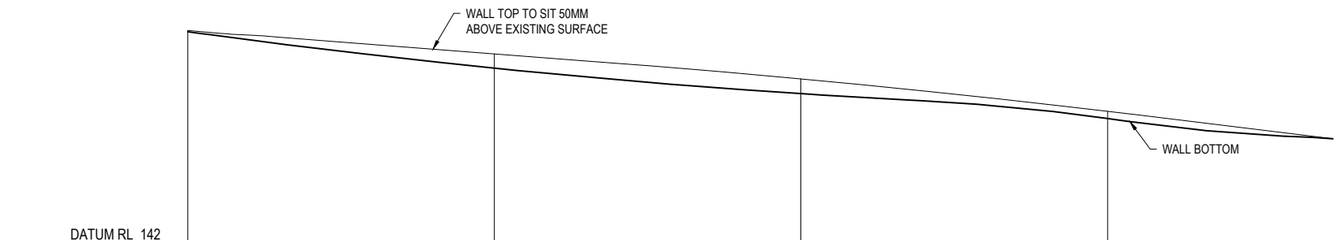
DATUM RL 145							
TOP OF WALL	149.06	148.71	148.64	148.55	148.35	147.95	147.49
BASE OF WALL	148.23	147.92	147.74	147.58	147.37	146.97	146.51
HEIGHT OF WALL	0.83	0.79	0.90	0.97	0.98	0.98	0.98
EXISTING LEVELS	149.23	149.13	149.10	149.15	148.95	148.62	148.11
CHAINAGE	10	20	30	40	50	60	70

RETAINING WALL 1



DATUM RL 142					
TOP OF WALL	146.22	146.13	146.05	146.04	145.96
BASE OF WALL	145.91	145.15	145.07	145.09	145.19
HEIGHT OF WALL	0.30	0.98	0.98	0.95	0.77
EXISTING LEVELS	145.91	144.89	144.67	145.01	145.83
CHAINAGE	0	10	20	30	40

RETAINING WALL 2



DATUM RL 142				
TOP OF WALL	149.03	148.26	147.45	146.39
BASE OF WALL	148.98	147.80	146.96	146.16
HEIGHT OF WALL	0.04	0.47	0.48	0.23
EXISTING LEVELS	149.03	148.26	147.45	146.39
CHAINAGE	0	10	20	30

RETAINING WALL 3

RESOURCE CONSENT
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
A	FOR RESOURCE CONSENT AND CLIENT REVIEW	NS	AS	JT	19.02.21

Drawing Originator: Beca

Original Scale (A1) 1:100
Reduced Scale (A3) 1:200

Design	JW	01.10.20	Approved For Construction*
Drawn	NS	04.02.21	
Dsg Verifier	JD	01.10.20	
Dwg Check	AS	06.02.21	Date

* Refer to Revision 1 for Original Signature

Client: DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

Project: DUNEDIN CITY COUNCIL
TUNNEL BEACH
CAR PARK

Title: RETAINING WALL
LONGSECTIONS

Discipline: STRUCTURAL
Drawing No.: 3336298-SE-011
Rev.: A

DO NOT SCALE

IF IN DOUBT ASK.