



Contaminated Land Management Plan

WIAL Sea Defences Renewal

Prepared for Wellington International Airport Limited
Prepared by Beca Limited

3 October 2025



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everyday
better.**

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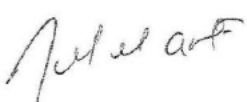
Appendix B – DSI Sample Location Plan

Appendix C – Site-wide Contaminated Land Management Plan Checklist

Revision History

Revision N°	Prepared By	Description	Date
1	Genevieve Smith	Draft for client comment	4 March 2025
2	Genevieve Smith	Final draft for client comment	22 May 2025
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Document Acceptance

Action	Name	Signed	Date
Prepared by	Genevieve Smith		3 October 2025
Reviewed by	Sarah Shepherd (CEnvP SC)		3 October 2025
Approved by	Jennifer Hart		3 October 2025
on behalf of	Beca Limited		

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1 Introduction

1.1 Background

Beca Limited (Beca) has been commissioned by Wellington International Airport Limited (WIAL) to prepare a Contaminated Land Management Plan (CLMP) for Stage 1 of the proposed Sea Defences Renewal at Moa Point Road, Rongotai, Wellington 6022 (the 'site'). A Preliminary Site Investigation (PSI)¹ and Detailed Site Investigation (DSI)² were completed for the proposed works, to assess contaminants of concern resulting from historical activities.

A site-wide Contaminated Land Management Plan (CLMP)³ was prepared by GHD Ltd (GHD) and certified by Wellington City Council (WCC) to support a site-wide land use resource consent to undertake earthworks on contaminated land (SR520690) held by WIAL for the airport. That site-wide CLMP and resource consent does not include the seawall site but does include the Miramar Golf Course yard area which is also relevant to the Sea Defences Renewal project. The methodology employed in the site-wide CLMP has been utilised in this project-specific CLMP but has been refined based on the findings of the PSI and DSI.

1.2 Purpose & Scope

This document details recommended good practice for health and safety, good practice for soil disturbance, and required actions in the event of an unexpected discovery. This CLMP relates to the proposed contractor yard ('Moa Point Yard') adjacent to the existing seawall. It does not include the eastern bank beyond Stewart Duff Drive.

This CLMP supports resource consent applications under the planning controls of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (2011) (NESCS), WCC District Plan and the GWRC Operative Natural Resources Plan (NRP). The information provided in the CLMP is based on the knowledge of contaminated soils at the site from the Beca PSI and DSI completed for the Stage 1 development.

This CLMP has been prepared in general accordance with:

- Ministry for the Environment (MfE) Contaminated Land Management Guidelines (CLMG) No. 1 – Reporting on Contaminated Sites in New Zealand (2021).
- MfE CLMG No. 5 – Site Investigation and Analysis (2021).
- New Zealand Guidelines for Assessing and Managing Asbestos in Soils (GAMAS), BRANZ 2024.
- WorkSafe, December 2016. Approved Code of Practice (ACOP) – Management and Removal of Asbestos.

1.3 Approach

This CLMP is a living document and should additional soil-sampling be undertaken that further delineates the distribution of contaminants then this CLMP should be updated to reflect this. If there is uncertainty regarding the applicability of this CLMP to a particular area, then the suitably qualified experienced practitioner (SQEP) should be contacted who will advise on the appropriate procedures.

¹ Beca, 13 February 2025. Preliminary Site Investigation – WIAL Sea Defences Renewal.

² Beca, 11 April 2025. Detailed Site Investigation (Contamination) – WIAL Sea Defences Renewal.

³ GHD, 31 March 2023. Wellington International Airport Site-wide Contaminated Land Management Plan.

1.4 Site Identification

Specific identifiers for the site that this CLMP relates to are listed in **Table 1** and the site location is shown in **Figure 1**. Wellington International Airport will be referred to as ‘the airport’.

Table 1. Site Identification

Parameter	Seawall Site
Approximate address	20A Moa Point Road, Rongotai, Wellington 6012
Legal description	Part Lot 3 and Lot 4 DP 78304
Ownership	Wellington City Council (WCC) and the Crown
Approximate coordinates (NZGD 2000, centre of site)	-41.3362997, 174.8064835
Approximate area of the investigated sites	21,700 m ²



Figure 1. Site extent in the red polygons (Source: NearMap)

1.5 Proposed Works

Superficial works will occur on the existing seawall to replace current armouring, which will include exposing soil beneath the wave crest gabions and reshaping of the existing fill. No spoil is intended to be removed from the seawall or Moa Point Yard site. Spoil may be temporarily stored on site before reuse. The concept design drawings for these works are provided in **Appendix A**.

The procedures in this CLMP have been prepared under the assumption that no works are occurring east of Stewart Duff Drive (refer to **Appendix A** and **Figure 1**).

2 Site History and Contaminating Activities

2.1 Preliminary Site Investigation (Beca, 2024)

A PSI was completed that included the golf course site, the seawall, and an area on the eastern bank. The eastern bank has been excluded from proposed works as of January 2025.

The seawall site was initially reclaimed between 1951 and 1972, using concrete armour units, imported rock, and rubble. The seawall has been maintained with additional armour units over the past 50 years, and, in the mid-1980s, rock fill and armour units were placed to address a breach in the seawall armour. The Moa Point Road tunnel was constructed directly north of the seawall over 2005 and 2006. Imagery from the tunnel construction showed stockpiled asphalt and a layer of terracotta rubble in the seawall soil profile. An area in the eastern bank to the east of the site appeared to have been used for fire training purposes in the 1980s based on historical aerial photos and an airport master plan.

Potentially complete exposure pathways were identified for construction workers, future site users, and surface water in the seawall site.

Codes on the MfE Hazardous Activities and Industries List (HAIL) were considered for the seawall site at a 'more likely than not' level of certainty. The HAIL activities, HAIL codes and potential contaminants of concern have been summarised in **Table 2**.

Table 2. HAIL activities and potential contaminants of concern

Activity	HAIL Code	Contaminants of Concern
Uncontrolled fill on the east bank adjacent to the seawall.	I - Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment.	• Heavy metals • Asbestos • PAH • TPH
Potential fire practice area east of the site.	F1 – Airports, including fuel storage, workshops, washdown areas, or fire practice areas.	• PFAS • Heavy metals • PAH • TPH • Dioxins

2.2 Detailed Site Investigation – Seawall Site (Beca, 2025)

Soil sampling was carried out in the seawall site on 28 and 29 November 2024 via machine-excavated test pits and hand-dug pits. Pits were limited to accessible areas that would not disrupt local fauna. Five test pits and four hand auger locations were placed systematically across the site. The sample locations can be found in **Appendix B**.

In summary:

- Asbestos was not detected in soil within the site.
- Heavy metals and PAHs were not detected at concentrations that exceed human health or environmental assessment criteria. Some heavy metals and benzo(a)pyrene were present above published background concentrations.
- PFAS, specifically PFOS, was detected a concentration that exceeded the indirect terrestrial ecological criteria in samples from two test pits and two hand pits located in the eastern vegetated area, and one

hand pit in on the southern edge of the current seawall yard. The PFAS concentrations complied with human health and direct terrestrial ecological criteria.

- Asphalt fragments are present throughout the fill at the site. Samples were analysed for PAH and heavy metals to assess for the presence of coal tar. According to WasteMINZ (2023), coal tar roading material is defined as being '*roading material with a total PAH concentration of greater than or equal to 20 mg/kg, and BAP toxic equivalency quotient (TEQ) greater than or equal to 1 mg/kg.*'⁴ Based on this definition, results indicate that the asphalt samples collected did not contain coal tar.

The DSI concluded that samples from the seawall site contained concentrations of contaminants above background concentrations, but below human health and direct ecological criteria. The NESCS applies to the site, and resource consent is required to complete soil disturbance as a controlled activity.

A monitoring well A4_07 was installed within the site in 2019⁵. The borehole log noted pieces of metal between 0.8 and 1.5 m bgl, and gravel and wood at 1.5 to 3.0 m bgl. Some heavy metals and PAH concentration were above background concentrations in samples to 3.4 m bgl but complied with human health criteria. Groundwater was measured in the monitoring well at 3.4 m bgl. Three rounds of groundwater sampling occurred in November 2019, March 2020, and July 2020 and PFAS was detected during each event. This monitoring well could not be visually located during the 2024 DSI. The approximate monitoring well location can be found in **Appendix B**.

⁴ WasteMINZ, December 2023. Guidelines for Assessing and Managing Coal Tar Contamination in Roding.

⁵ Aurecon, December 2020. Wellington International Airport PFAS Assessment.

3 Implementation of this CLMP

3.1 General Management Procedures and Requirements

This section sets out general management procedures and requirements for soil disturbance work:

1. It is recommended that implementation of this CLMP is considered good practice throughout the duration of any works involving soil disturbance within the site.
2. All personnel involved in planning or undertaking future soil disturbance works within the site are to be familiar with this CLMP and ensure that the recommendations of this CLMP have been followed.
3. This CLMP is to remain available onsite at all times so that reference can be made to it when undertaking soil disturbance works.
4. The CLMP is intended to assist Contractors in meeting their legal obligations related to potentially contaminated soils with respect to health, safety, and the environment. It is not intended to cover the general site safety procedures required for typical excavation and construction activities. The CLMP is not intended to relieve Contractors of any of their legal responsibilities.

Overall responsibility for the implementation of this CLMP shall be held by WIAL. However, the specific requirements and provisions of the management plan will be under the control of the site Contractor.

3.2 Site Area Classification

The site-wide CLMP follows a risk-based approach, which involves dividing the WIAL site into three management areas:

- Lower risk: Areas where soil has been investigated, and contaminants are at or below Wellington regional background levels. In these locations, standard erosion and sediment controls are to be put in place with a protocol for unexpected material discovery.
- Medium risk: Areas which have been identified as areas above background concentrations of contaminants, but below human health guideline values, or locations where no known HAIL activities have been undertaken and no investigations have been undertaken. Work in these locations can be undertaken with a management plan, with contaminant discovery protocols.
- Higher risk: Areas where soil sampling has identified a specific risk to human health, potential risks to human health such as asbestos, hydrocarbons in the soil or landfilling activities, or un-investigated HAIL activities have been identified.

These three classifications are based on existing sampling data and should be updated as sampling is undertaken across the WIAL site to support future earthworks, or if land use changes occur. It was recommended that classifications be changed over time as investigations are completed.

Based on the results from the DSI, the seawall site meets the site-wide CLMP definition of medium risk.

Table 3 identifies the controls required for each risk level. The sections referenced in **Table 3** are generally based on the site-wide CLMP; but have been made specific to the site and identified contaminants.

Table 3. Summary of management protocols (source: GHD, 2023)

Control	Relevant Section	Lower Risk Areas	Medium Risk Areas	Higher Risk Areas
Site wide record keeping and reporting requirements	7	✓	✓	✓
Site wide management protocols	8	✓	✓	✓
Dewatering controls (if undertaken)	9	✓	✓	✓
Unexpected contamination discovery protocols	10	✓	✓	✓
Air quality monitoring	12	-	-	✓
Asbestos controls	13	-	-	✓
Soil disposal / on-site reuse protocols	14	✓	✓	✓

4 Roles and Responsibilities

The following contact details shall be updated prior to works commencing:

Table 4. Roles and responsibilities

Role	Responsibility
Consent holder: Wellington International Airport Limited 	Responsible for overseeing approval and implementation of this CLMP.
Lead Contractor: McConnell Dowell 	The construction manager of the lead contractor shall be responsible for works compliance with requirements of the CLMP and other relevant plans/documentation. Inform WIAL, as required, relating to contamination incidents and discoveries.
Contractor's Site Supervisor: McConnell Dowell 	The site supervisor must read, understand, and implement the CLMP on site and manage site workers compliance with this management plan. The site supervisor shall ensure all workers are inducted, wear appropriate personal protective equipment, and follow basic hygiene procedures and be aware of the symptoms of contamination toxicity and health risks. The site supervisor shall monitor for signs of contamination (using an excavation spotter if deemed necessary) and manage the implementation of control measures and safety precautions. Verbally report to the construction manager regarding incidents relating to presence of contamination.
Site Contamination SQEP[†]: To be confirmed by WIAL prior to works commencing. 	The Site Contamination SQEP shall be responsible for provision of ground contamination advice during the works and completion reporting on conclusion of the works, if required.

[†]Suitably Qualified and Experienced Practitioner

5 Record Keeping & Reporting Requirements

5.1 Record Keeping

The below section details the record keeping requirements for specific areas and scenarios that could be encountered during site works.

5.1.1 General record keeping requirements

Records of the following should be kept and submitted at the end of any projects:

- Records of employee induction onto the site
- A record of health and safety plans for each contractor
- Records of any health and safety incidents at the worksite
- Records of any air quality monitoring required
- Records of any contamination discovery incidents.

5.1.2 Incidents, accidents, and complaints register

A register shall be maintained by the on-site Environmental, Health and Safety officer of any health and safety or environmental incidents, accidents or complaints related to the work. The register will contain, for each incident, accident, or complaint, as a minimum:

- The date and time;
- The nature of the issue;
- Who reported the issue (name and contact details);
- What actions were taken to address or resolve the issue;
- Whether any third party or emergency service was called; and
- The name and role of the person making the entry to the register.

5.1.3 Soil movement/management

A record of the following should be kept:

- Locations of soil disturbance being undertaken
- Volumes of soil disturbance being undertaken
- A copy of the Erosion and Sediment Control Plan
- Records of site establishment and compliance with the soil controls
- Records of volumes of soil reused on site, and volumes of soil to be removed from the worksite
- Records of material imported to the site, including source, volumes, and testing undertaken before importing
- Records of any validation sampling.

5.1.4 Soil Disposal

The following records should be kept and submitted as part of a Project Report (refer to **Section 5.2.1**):

- Location of the worksite and volumes of material to be removed
- Results of testing of excavated material
- Records of locations on the site where reuse is proposed, or a reason why onsite reuse is not applicable
- Records of where the material is to be sent to, including the agreement of the accepting facility, and weighbridge receipts.
- Evidence of compliance with the transporting requirements of material removed from the site.

5.2 Reporting Requirements

To keep this plan up to date, information about all completed soil works needs to be captured in a Project Report, which should be provided to WIAL at the end of works. This includes the records of soil movement on and off the site and the results of testing. This can then be used to update the risk areas and better inform future soil disturbance works undertaken at the site. Project Reports should be completed for every project involving soil disturbance to capture main information around soil disturbance and disposal.

5.2.1 Project Report

At the end of the project, a Project Report should be compiled by the SQEP and / or the Contractor. Dependent on the works undertaken, this report should include:

- Completion of Section 1-3 of the CLMP Checklist attached in **Appendix C**. The completed form needs to be provided to the WIAL Planning Manager.
- Location of the works
- Any surveys or as built plans that are available at completion of the works
- Information from existing soil sampling and any recommended additional sampling
- The responsible parties involved in the project and dates of their engagement
- Any DSI, Remedial Action Plans, Management Plans, or Site Validation Reports undertaken as part of the project should be signed off by a SQEP
- Records of any contamination discovery incidents
- Records of earthworks undertaken and compliance with the CLMP
- Disposal records (for both water and soil disposal) including sampling results, and records from the accepting facility
- Asbestos plans and asbestos clearance documentation.

6 Site Wide Requirements (All Areas)

6.1 Worker PPE – Minimum Requirements

6.1.1 Minimum requirements

Before work on the site commences, maintenance and excavation workers should be briefed about potential exposures to contaminated soil and the associated earthworks management. This should include a discussion about unexpected contamination discovery protocols as outlined in **Section 8**.

All workers directly handling potentially contaminated materials shall wear appropriate personal protective equipment (PPE) as required, including but not limited to the following:

- Long sleeves and long-legged clothing (which should be washed regularly)
- Cut proof gloves
- Steel toe cap safety boots
- Hard hat
- Safety glasses.

6.1.2 Worker Hygiene

Ingestion and dermal (skin) absorption pathways should be prevented through implementation of basic worker hygiene procedures and provision of washing and eating facilities.

6.2 Soil management

To minimise the migration of potential contaminants across the boundary of the worksite, minimise sedimentation, and ensure an accurate picture of the overall site is kept, soil movement and management practices should be put in place, and accurate records of soil movement should be kept in order to capture the movement of soil across the site.

This section provides the requirements for site set up, erosion and sediment controls, backfilling, and validation sampling. Records of soil movement should be kept in line with the requirements outlined in **Section 5**.

6.2.1 Sediment controls

An erosion and sediment control plan in line with guidance contained in 'Erosion and Sediment Control Guidelines for the Wellington Region – Erosion and Sediment Controls' should be prepared before works are to be undertaken. This plan should be incorporated into the Project Report.

Before works begin, the worksite should be isolated by erecting fencing or other appropriate barriers to prevent the public or other site workers from gaining access. If required, dust screening should be incorporated into the fencing. Signage should be placed as required, including a health and safety board with Site hazards at the WIAL site entry warning signs.

For works on the seawall directly adjacent to the airport runway, there are a number of other controls which may need to be in place, such as a plan regarding foreign object management and aviation security access. These should be discussed with WIAL prior to works commencing.

6.2.2 Stockpiles

In the event that contaminated material is temporarily stockpiled on site, the following controls should be put in place:

- Contaminated material stockpiles should either be located on a sealed, hard surface or if this is unavailable excavated material should be placed on sheeting to protect the underlying ground.
- Stockpiles should be bunded or otherwise protected in order to prevent mobilisation of material from the stockpile.
- Stockpiles should be covered when the site is unattended.

Stockpiling will need to be completed in accordance with WAIL Foreign Object Debris (FOD) requirements. If stockpiles are covered, the covering must be weighed down/ secured.

6.2.3 Dust

If there is the potential for the generation of dust, such as high temperatures and wind, dust suppression measures should be put in place. These include:

- Minimising the size of stockpiles through the programme of works
- Dampening down by spraying water over the excavation stockpiles, transport and deposition area at a rate that does not generate run-off.
- Drop distances from excavator to truck or stockpiles should be minimised
- Cover of stockpiles overnight or in high winds
- Any additional relevant dust mitigation measures such as those described in the Good Practice Guide for Assessing and Managing the Environment Effects of Dust Emissions, MfE 2001.

6.2.4 Backfilling excavations

Where possible, material should be used to backfill the excavation. However, due to geotechnical requirements this is not always possible. Refer to **Section 9** for soil reuse and disposal options.

If material to backfill the excavation is required, due to insufficient excavated material, or material being unsuitable for backfilling due to geotechnical requirements, material should be sourced from an appropriate location. Volumes of imported materials should be kept, along with records of the source, and a certification of appropriateness for use at the worksite.

If the material is not virgin natural material, it should be tested at a level of 1 sample per 500 m³. The backfill material should be tested at the source or otherwise stockpiled until acceptance at the site is approved.

6.3 Emergency Contacts

6.3.1 Emergency Services

In the event of an incident on the WIAL Site, the following emergency contacts should be informed:

- WIAL Operations Centre: 04 385 5100
- Fire and Emergency New Zealand and Ambulance Services: 111
- National Poisons and Hazardous Chemicals Information Hotline: 0800 764 766

6.3.2 Regulatory Bodies

The main regulatory bodies to be consulted in respect of the above controls are as follows:

- Wellington City Council: 04 499 4444
- Greater Wellington Regional Council Environment Hotline: 0800 496 734
- WorkSafe New Zealand: 0800 030 040

6.3.3 Landowner

In the event of an emergency on site or if unexpected contamination is discovered, the Project Manager and Environmental Manager for WIAL should be contacted.

WIAL shall manage communication with WCC, the landowner.

7 Dewatering

Groundwater is not expected to be encountered during site works so dewatering is not likely to be required. However, if in the unforeseen event dewatering is required, the following section outlines general methodology and rules that would apply in that situation. This section is not intended to be used as a detailed dewatering and settlement monitoring plan but instead it is a brief overview of the appropriate management procedures should groundwater be encountered during site works. If dewatering is required, the SQEP should be consulted.

7.1 General Rules/Conditions

Activities related to groundwater are covered in the GWRC NRP. If dewatering activities are required for the WIAL site works, a SQEP and hydrogeologist should be consulted to determine resource consenting requirements.

Decommissioning of a bore is a permitted activity under Rule 5.5.4 of NRP provided the bore is decommissioned in accordance with the NZS 4411:2001 Environmental Standard for Drilling of Soil and Rock by a suitably qualified person and GWRC is advised. The presence of monitoring well A4_07 should be confirmed prior to commencement of earthworks. If the well can be located, it must either be:

- Protected during with works and headworks raised or lowered if there is a change in surface around the well so that the surface seal is maintained; or
- Decommissioned in accordance with Rule 5.5.4.

7.2 Dewatering Methodology

A hydrogeologist will determine the most appropriate dewatering method for the proposed works based on their experience and knowledge of local ground conditions.

7.3 Groundwater Levels

If dewatering is required, existing groundwater bores in the vicinity of the WIAL site works may experience changes in groundwater level. An assessment of expected groundwater drawdown and its extent would be required to quantify the envelope of effects and to apply for a dewatering resource consent. In the event that dewatering is required (which is not anticipated in this project), a hydrogeologist should be consulted to undertake the assessment of effects and prepare a specific dewatering management plan.

7.4 Groundwater Settlement

Dewatering activities can result in settlement of surrounding ground because:

- Drawdown of groundwater increases effective stress leading to both elastic (immediate) and consolidation settlement of soils. Settlement magnitude is dependent on the magnitude of groundwater drawdown, the soil profile and material properties at the WIAL site.
- High flow velocities through the soil to dewatering wells and/or ineffective filters result in mobilisation and loss of fines, which can lead to local ground settlement.
- Settlement of adjacent ground associated with instability of excavation sides, insufficient reduction of pore water pressures or seepage, which compromises stability.

7.5 Groundwater Disposal Option

The contractor shall confirm the groundwater disposal methodology, which is expected to comply with the appropriate conditions and rules outlined in the NRP. Groundwater should be tested and analysed for

contaminants prior to discharge to assess compliance with the NRP and any specific existing consent conditions. A SQEP should be engaged to determine the appropriate analytical suite for the worksite. If groundwater has elevated concentrations, extracted groundwater will be treated as necessary to achieve the required discharge quality. If groundwater with odours, discolouration and/or oils present on surface is encountered, or unexpected groundwater contamination is confirmed via testing, a SQEP should be consulted to assess appropriate actions and/or groundwater disposal options.

7.6 Erosion and Sediment Control

Detailed erosion and sediment control measures including inspection and maintenance procedures will be required by the contractor prior to any dewatering being undertaken. A Site Contamination SQEP should be consulted to ensure erosion and sediment control measures are effective for protecting nearby waterways and stormwater during any dewatering activities.

8 Unexpected Contamination Discovery Protocols

The DSI provides an indication of ground conditions which can be expected during earthworks. However, there may be situations where contamination is encountered which has not previously been detected at a worksite. The following controls are intended as a guideline, and depending on the site specific conditions, additional PPE, monitoring (such as asbestos monitoring or vapour monitoring) should be put in place.

8.1 Contaminant Indicators

There are a number of signs which can indicate the impact of contamination at a worksite. When these signs are present, appropriate contingency action should be undertaken at the worksite to protect the health of workers at the worksite.

Contaminant indicators in soil include:

- Visual: if seen, the following indicate potential contamination:
 - Buried metal objects;
 - Staining or discolouration of soil;
 - Sheens or foaming; and
 - Fibrous cement-based board materials (may contain Asbestos Containing Material (ACM)).
- Olfactory: If smelled, the following indicate potential contamination:
 - Smell of fuel; and
 - Other strange or unexpected odour.
- Auditory: if heard, the following indicate potential contamination:
 - Flowing or dripping liquid;
 - Continuous alarming on gas/vapour monitoring devices; and
 - Liquid or gas leaks.
- Other: if observed, the following indicate potential contamination.
 - Any other foreign substance that may cause harm to human health or the environment.

8.1.1 Escalation Plan

In the event that gross contamination is observed during earthworks or controls fail and there is a risk of discharge outside the worksite, the following steps will be taken:

- Cease work within 5m of the discovery, evacuate the excavation and make the site safe.
- Advise the Project Manager / Site Supervisor. The Project Manager / Site Supervisor is responsible for making the site safe. Liaison between the Project Manager / Site Supervisor and the Onsite Environmental, Health and Safety Officer is required in this situation.
- If possible, contain any contaminant dispersion away from the excavation.
- Shut off any water flow away from the excavation area in the case of encountering contaminants.
- The Project Manager/Site Supervisor shall assess the site. If the assessment concludes that confirmation of contamination is required, the Project Manager / Site Supervisor shall install temporary isolation and containment measures and seek the advice from the SQEP.
- The Project Manager/Site Supervisor will be responsible for the implementation measures and reporting to the Council Compliance Officer, as required. Verbal reporting will be undertaken within 24 hours or the next business day following the incident occurring.
- The Project Environmental, Health and Safety Officer representing the contractor will be responsible for the development of a Site-specific health and safety plan to manage risk to workers and the public during the proposed works. This plan may require additional measures over and above what is prescribed in this document.

- Maintain a register of any contaminated material discovered, including location, type, quantity and disposal records (landfill receipts and waste manifest).
- Dispose of any pooled rainwater in the excavation to an appropriately licensed facility. It should be noted that if an escalation plan is required to be implemented a plan should be in place showing clear lines of communication so that the escalation plan can be implemented effectively.

8.1.2 Record Keeping

See **Section 5** for record keeping requirements.

9 Soil Disposal & Reuse

Before work on site begins, the contractor should assess the contaminated soil disposal and reuse requirements for the seawall site.

According to the site-wide CLMP methodology, soil at the seawall site has been categorised as 'medium risk'. Samples contained low concentrations of PFAS and other contaminants above background concentrations. Soils analysed did not contain contaminant concentrations that exceeded human health or direct ecological criteria.

9.1 Onsite Reuse

With contaminant concentrations above published background concentrations, but below human health and environmental assessment criteria, the soil is suitable for reuse on site. Soil from the seawall site may only be reused within the seawall site.

9.1.1 Returned to the excavation

If material is of an acceptable geotechnical quality, onsite backfilling should be prioritised to minimise the requirements for material to be treated and / or disposed of elsewhere.

9.1.2 Retained on site for backfill

If material cannot be reused in the excavation due to volumes or engineering stability, it can potentially be stockpiled within the site for backfilling in other WIAL locations in case further backfilling is required. As PFAS has been detected in soil from the seawall site, stockpiling requirements (including suitable locations and controls) and the proposed alternative WIAL location should be discussed with the SQEP prior to works in the seawall site.

If temporary storage and stockpiling of PFAS contaminated soil occurs on site, it should be undertaken in accordance such a way that PFAS cannot migrate into the surrounding soil or water. Depending on the period of time the soil will be stockpiled for, this may require different levels of controls and infrastructure (e.g. temporarily covering the stockpile on an impervious liner, stockpiling within a sealed and bunded area, or capping and containment for long term management). Monitoring may be required if soil is to be stored on site for a long duration.

The same general controls for stockpiling outlined in **Section 6.2** should also be followed, including:

- Separation of material
- Minimising risk of sedimentation or dust control
- Record keeping, including subsequent movement of material from the stockpile to other parts of the WIAL site or the removal of material from the WIAL site. Due to the long-term nature of the onsite storage, additional measures to prevent migration of material from the stockpile should be undertaken.

9.1.3 Bunding or other reuse

Other onsite reuse options include:

- Excavated material can be repurposed to construct a bund at the site
- Excavated material can be spread across other parts of the site to build it up and smooth out any bumps at the site.

As with stockpiling, the reuse options should be discussed with the SQEP prior to works.

9.2 Disposal at Authorised WIAL Storage Areas

WIAL has applied for a resource consent for:

- The storage of fill material, including contaminated fill, on a disposal site located on Bridge Street, adjacent to the airport runway; and
- Global earthworks, including for the disposal of contaminated fill, across the wider Airport landholdings.

If authorised, the above consents will provide for the disposal of contaminated fill within defined limits, at various sites within WIAL's landholdings.

If the contaminated fill falls within the parameters defined by these consents (which are subject to change until a decision is issued), or any future consents obtained by WIAL for the disposal of fill material, WIAL will preferentially seek to retain and managed contaminated material on-site.

9.3 Disposal at a Licensed Facility

If none of the above options are available, material may require offsite disposal. If disposal at a licensed facility is proposed, the disposal facility should be contacted, and acceptance of the material agreed before the earthworks begin. There is limited acceptance of some PFAS-impacted material in landfills in the lower North Island at present. Acceptance of material containing low levels of PFAS is at the discretion of the operator licensed to accept such material and will be considered based on leachate results. Prior approval must be sought from the chosen facility prior to works commencing. Treatment of the soil may be required prior to removal to meet these requirements.

During ground disturbance works, volumes of material removed from the site should be recorded, and weighbridge receipts should be collected from the receiving landfill. The records of volumes, weighbridge receipts, and records of acceptance from the receiving facility for all material removed from the WIAL site should be collected and submitted as part of the Project Report.

9.4 Transport

To minimise the potential for contaminated material to become mobilised from the transport vehicles the following precautions should be undertaken:

- A record will be kept of the vehicle movements into and leaving the worksite, including departure location and destination, and records of loads.
- Vehicle movements should be restricted to hard stand areas of the worksite, or protective material should be placed down.
- Excavated material should be loaded into the truck tray in a way which prevents the spillage of material outside the worksite or the vehicle.
- Truck trays will be covered after being loaded and covers will not be removed until the vehicle has reached the receiving facility.
- When covering and uncovering truck trays manually, drivers should be wearing appropriate PPE for the level of contamination within the material transported.
- Vehicle wheels will be inspected prior to leaving the worksite and any spillages removed from surfaces prior to movement of the vehicles.
- Vehicles will go through a wash station (e.g. washdown, wheel brush station or portable power wash) at the entry/exit point of the worksite.
- After a vehicle has left the site the road outside will be inspected and if required washed down.
- Airport speed restrictions should be complied with.

10 Reviewing Statement

This report has been reviewed by Sarah Shepherd, CEnvP Site Contamination Specialist. Sarah is a suitably qualified and experienced practitioner (SQEP) with 20 years of experience managing and delivering a wide variety of environmental investigation works in New Zealand, Asia and the United Kingdom. She is experienced in regulatory compliance, oversight of environmental investigations, monitoring and risk assessment, contractor management, preparation and review of technical reports, as well as consultation with stakeholders and regulatory bodies. Sarah has been a Certified Environmental Practitioner Site Contamination Specialist since 2016.



11 Limitations

This report has been prepared by Beca Ltd (Beca) solely for Wellington International Airport Limited (Client). Beca has been requested by the Client to provide site-specific Contaminated Land Management Plan (CLMP) in regard to proposed works on Moa Point Road, Rongotai, Wellington 6022. This report is prepared solely for the purpose of managing potential environmental and human health risk from soils and groundwater at the site (agreed Scope). The contents of this report may not be used by the Client for any purpose other than in accordance with the stated and agreed Scope.

Beca acknowledges the Practice and Procedure Guidance, dated 22 July 2025, provided by the Panel Conveners appointed under the Fast-track Approvals Act 2024, which states that “reports that are intended to be relied on by the panel should not be submitted with a disclaimer stating that the report is not for use by persons other than the applicant”. This report, however, serves a dual purpose; it supports the application for approvals for the Southern Seawall and serves a wider regulatory function, having been prepared under the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NESC), the contaminated land rules of the Greater Wellington Regional Council (GWRC) Natural Resources Plan (NRP), and the contaminated land rules in Chapter 32 of the Wellington City Council (WCC) District Plan.

Beca gives its consent, pursuant to the disclaimer and limitations statement in this section of the report, for the panel convened under the Fast-track Approvals Act 2024 to rely on this report to assist it to determine an application for an approval. Beca does not assume any liability or responsibility to the panel that would be greater than any liability or responsibility Beca has to its Client.

This report has been prepared by Beca on the specific instructions of our Client. It is solely for our Client’s use for the purpose for which it is intended in accordance with the agreed Scope. Any use or reliance by any person contrary to the above, to which Beca has not given its prior written consent, is at that person’s own risk and Beca accepts no liability to any other person for their use of or reliance on this report.

This report contains information obtained by inspection, sampling, testing or other means of investigation. Unless specifically stated otherwise in this report, Beca has relied on the accuracy, completeness, currency and sufficiency of all information provided to it by, or on behalf of, the Client or any third party, including the information listed above, and has not independently verified the information provided. Beca accepts no responsibility for errors or omissions in, or the currency or sufficiency of, the information provided. Publicly available records are frequently inaccurate or incomplete.

The contents of this report are based upon our understanding and interpretation of current legislation and guidelines (“Standards”) as consulting professionals and should not be construed as legal opinions or advice. Unless special arrangements are made, this report will not be updated to take account of subsequent changes to any such Standards.

This report should be read in full, having regard to all stated assumptions, limitations, and disclaimers.



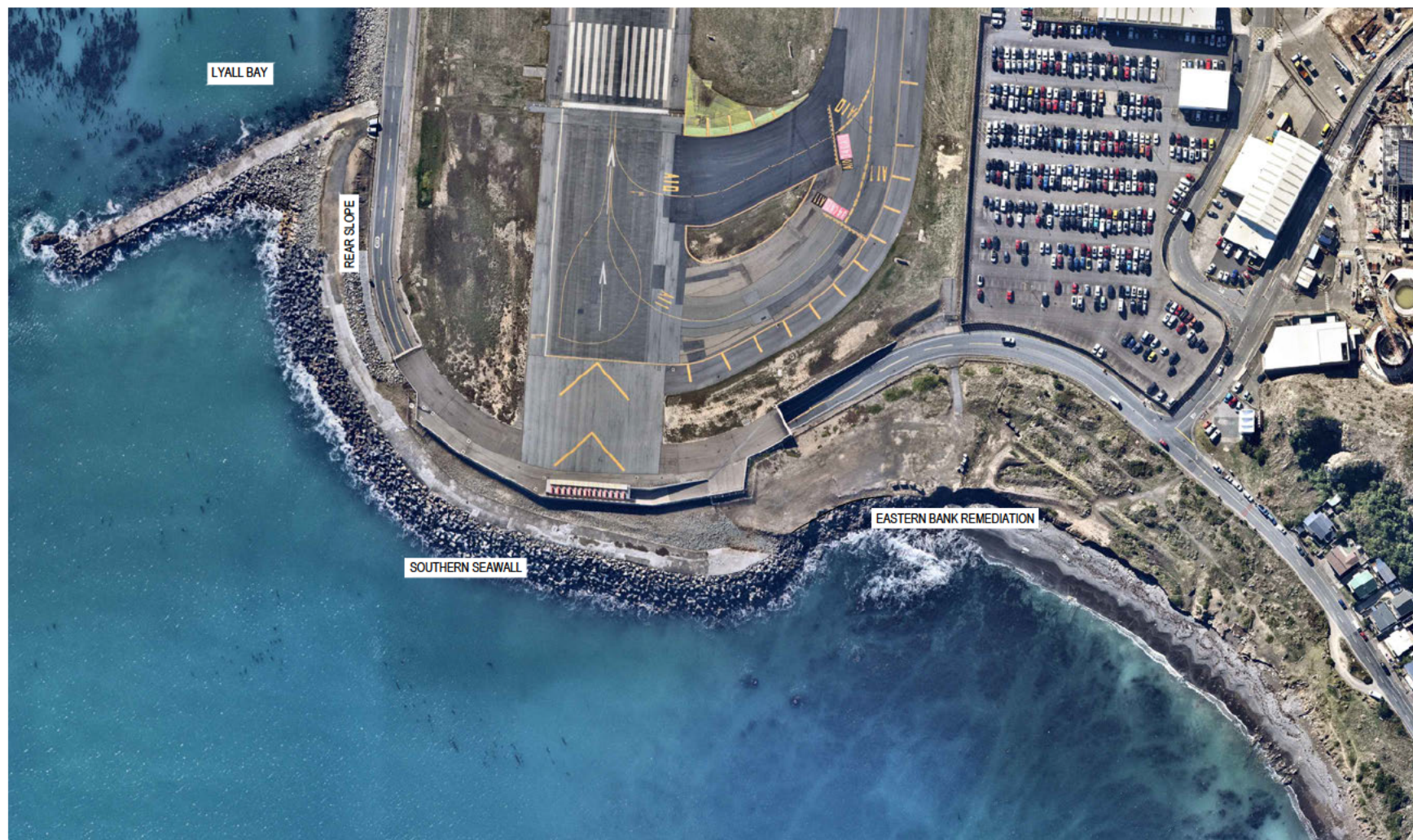
Appendix A – Site Drawings

WIAL SEA DEFENCE STRUCTURES RENEWAL SOUTHERN SEAWALL

CIVIL ENGINEERING

Prepared for Wellington International Airport Limited (WIAL)
Prepared by Beca Limited (Beca)
At: Wellington International Airport

Project No.: 3324338
29 AUGUST 2025
Issue for Resource Consent



DRAWING LIST

DRAWING No.	REV	DRAWING TITLE
3324338-CA-SK000	I	COVER SHEET AND DRAWING LIST
3324338-CA-SK001	F	EXISTING BATHYMETRIC AND TOPOGRAPHIC SURVEY
3324338-CA-SK002	H	EXISTING LAYOUT
3324338-CA-SK003	H	EXISTING SECTIONS SHEET 1 OF 3
3324338-CA-SK004	H	EXISTING SECTIONS SHEET 2 OF 3
3324338-CA-SK005	H	EXISTING SECTIONS SHEET 3 OF 3
3324338-CA-SK006	G	EXISTING STRUCTURES TYPICAL SECTIONS
3324338-CA-SK007	I	GENERAL ARRANGEMENT SOUTHERN SEAWALL
3324338-CA-SK008	J	GENERAL ARRANGEMENT EASTERN BANK REMEDIATION
3324338-CA-SK009	L	GENERAL ARRANGEMENT MOA POINT RD YARD
3324338-CA-SK100	H	SOUTHERN SEAWALL SECTIONS SHEET 1 OF 3
3324338-CA-SK101	H	SOUTHERN SEAWALL SECTIONS SHEET 2 OF 3
3324338-CA-SK102	J	SOUTHERN SEAWALL SECTIONS SHEET 3 OF 3
3324338-CA-SK104	J	EASTERN BANK REHABILITATION SECTION
3324338-CA-SK105	F	EXISTING AND PROPOSED SEAWALL TOE AND MHWS LOCATIONS
3324338-CA-SK106	C	LAND USE ZONES PLAN
3324338-CA-SK120	D	STAGE 1 KORORA HABITAT GENERAL ARRANGEMENT & UNDERPASS SECTION
3324338-CA-SK121	C	STAGE 1 KORORA HABITAT UNDERPASS LONG SECTION AND ELEVATION
3324338-CA-SK200	B	MGC CONSTRUCTION YARD EXISTING CONTOURS & SERVICES LAYOUT PLAN
3324338-CA-SK201	B	MGC CONSTRUCTION YARD GENERAL ARRANGEMENT & EXISTING SERVICES
3324338-CA-SK211	B	MGC CONSTRUCTION YARD STORAGE AREAS & STORMWATER DRAINAGE
3324338-CA-SK215	C	MGC CONSTRUCTION YARD LAYOUT PLAN: ROADS, SERVICES & STOCKPILES
3324338-CA-SK216	B	MGC CONSTRUCTION YARD ADDITIONAL EARTHWORKS AREAS
3324338-CA-SK217	C	MGC CONSTRUCTION YARD ISOPACH - CUT AND FILL PLAN
3324338-CA-SK221	C	MGC CONSTRUCTION YARD BULK EARTHWORKS CROSS SECTIONS #1
3324338-CA-SK222	A	MGC CONSTRUCTION YARD BULK EARTHWORKS CROSS SECTIONS #2

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- NOTES:**
1. HORIZONTAL COORDINATE SYSTEM: NEW ZEALAND TRANSVERSE MERCATOR (NZTM2000).
 2. VERTICAL DATUM TO NEW ZEALAND VERTICAL DATUM 2016 (NZVD16).
 3. BATHYMETRIC SURVEY DATA:
 - DISCOVERY MARINE LIMITED (DML) CONDUCTED APRIL TO MAY 2021.
 4. TOPOGRAPHIC DATA:
 - BECA DRONE SURVEY JAN 2024.

- LEGEND:**
- 5.0 — MAJOR CONTOURS (5.0m INTERVALS)
 - MINOR CONTOURS (0.5m INTERVALS)

F	FOR RESOURCE CONSENT	TS	AS	JH	08.04.25
E	FOR RESOURCE CONSENT	AF	AS	JH	28.02.25
D	FOR RESOURCE CONSENT	TS	AS	JH	06.12.24
C	FOR RESOURCE CONSENT	TS	AS	JH	02.12.24
No.	Revision	By	Chk	Appd	Date

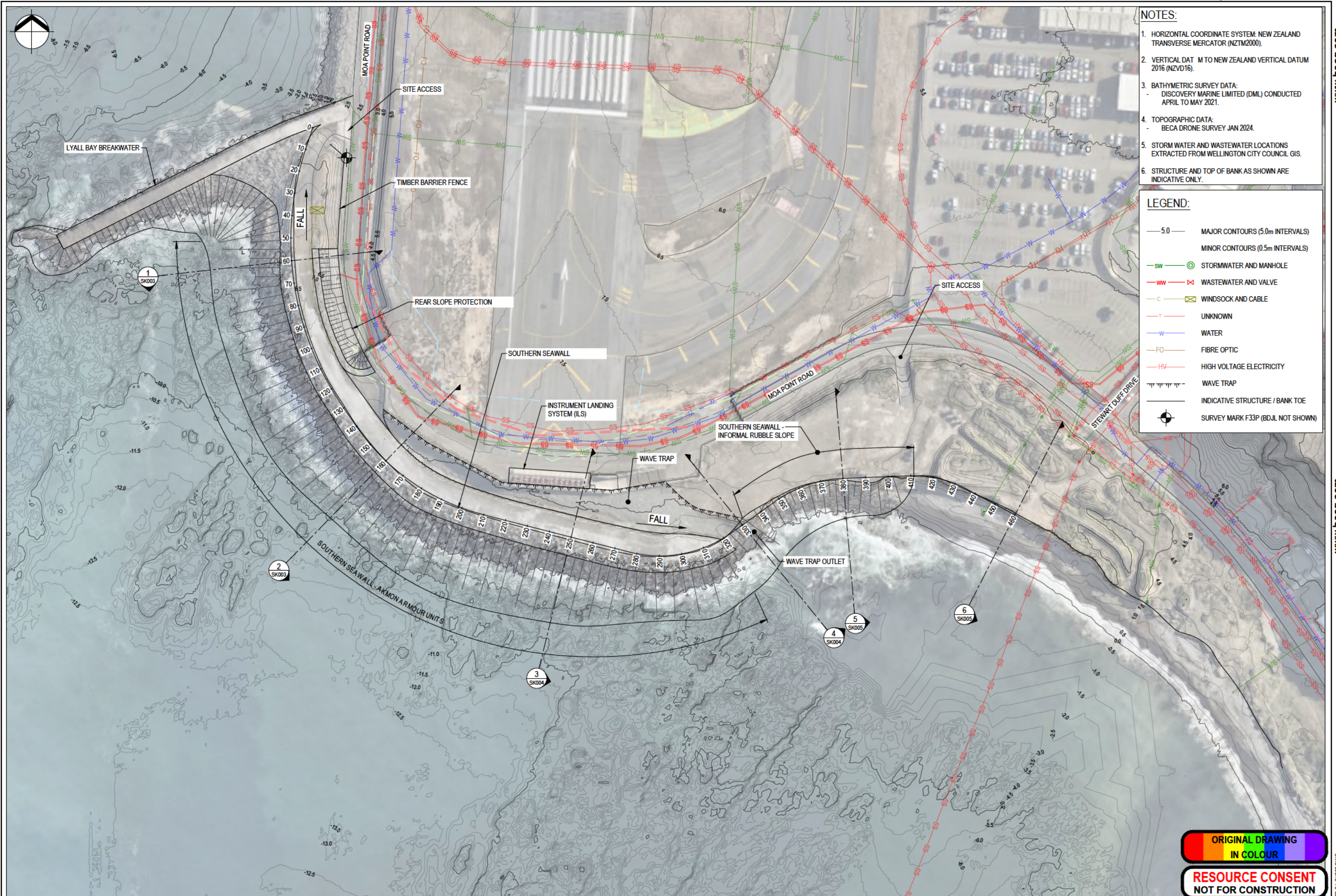
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Reduced Scale (A3)	Day Checker	JH	08.04.25	Date
1:1500	Day Check	JH	08.04.25	
* Refer to Revision 1 for Original Signature				



Client: **WIAL SEA DEFENCE STRUCTURES RENEWAL**

Project: **EXISTING BATHYMETRIC AND TOPOGRAPHIC SURVEY**

Discipline	CIVIL ENGINEERING
Drawing No.	3324338-CA-SK001
Rev.	F



NOTES:

1. HORIZONTAL COORDINATE SYSTEM: NEW ZEALAND TRANSVERSE MERCATOR (NZTM2000).
2. VERTICAL DAT M TO NEW ZEALAND VERTICAL DATUM 2016 (NZVD16).
3. BATHYMETRIC SURVEY DATA:
 - DISCOVERY MARINE LIMITED (DML) CONDUCTED APRIL TO MAY 2021.
4. TOPOGRAPHIC DATA:
 - BECA DRONE SURVEY JAN 2024.
5. STORM WATER AND WASTEWATER LOCATIONS EXTRACTED FROM WELLINGTON CITY COUNCIL GIS.
6. STRUCTURE AND TOP OF BANK AS SHOWN ARE INDICATIVE ONLY.

LEGEND:

- 5.0 — MAJOR CONTOURS (5.0m INTERVALS)
- MINOR CONTOURS (0.5m INTERVALS)
- SW — STORMWATER AND MANHOLE
- WW — WASTEWATER AND VALVE
- C — WINDSOCK AND CABLE
- ? — UNKNOWN
- W — WATER
- FO — FIBRE OPTIC
- HV — HIGH VOLTAGE ELECTRICITY
- WAVE TRAP
- INDICATIVE STRUCTURE / BANK TOE
- SURVEY MARK F33P (BDJL NOT SHOWN)

H	FOR RESOURCE CONSENT	CFP	JH	JH	28.07.25
G	FOR RESOURCE CONSENT	CFP	JH	JH	30.07.25
F	FOR RESOURCE CONSENT	TS	AS	JH	08.04.25
E	FOR RESOURCE CONSENT	AF	AS	JH	28.02.25
No.	Revision	By	Chk	Appd	Date

Original Scale (A1)	Design	AS & WP	08.04.25	Approved For Construction*
1:750	Drawn	TS	08.04.25	
Reduced Scale (A3)	Day Verifier	JH	08.04.25	
1:1500	Day Check	JH	08.04.25	Date
* Refer to Revision 1 for Original Signature				



Client: WIAL SEA DEFENCE STRUCTURES RENEWAL

Title: EXISTING LAYOUT

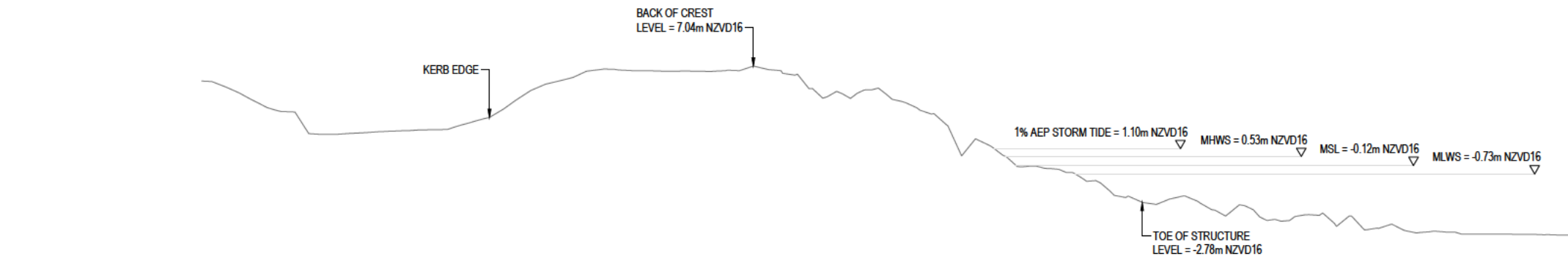
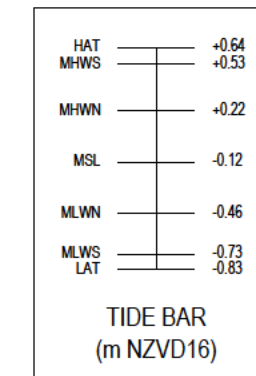
Discipline	CIVIL ENGINEERING
Drawing No.	3324338-CA-SK002
Rev.	H

NOTES:

1. HORIZONTAL COORDINATE SYSTEM: NEW ZEALAND TRANSVERSE MERCATOR (NZTM2000).
2. VERTICAL DATUM TO NEW ZEALAND VERTICAL DATUM 2016 (NZVD16).
3. BATHYMETRIC SURVEY DATA:
 - DISCOVERY MARINE LIMITED (DML) CONDUCTED APRIL TO MAY 2021.
4. TOPOGRAPHIC SURVEY DATA:
 - BECA DRONE SURVEY JAN 2024.
5. CREST AND TOE MARKS ARE INDICATIVE ONLY.

LEGEND:

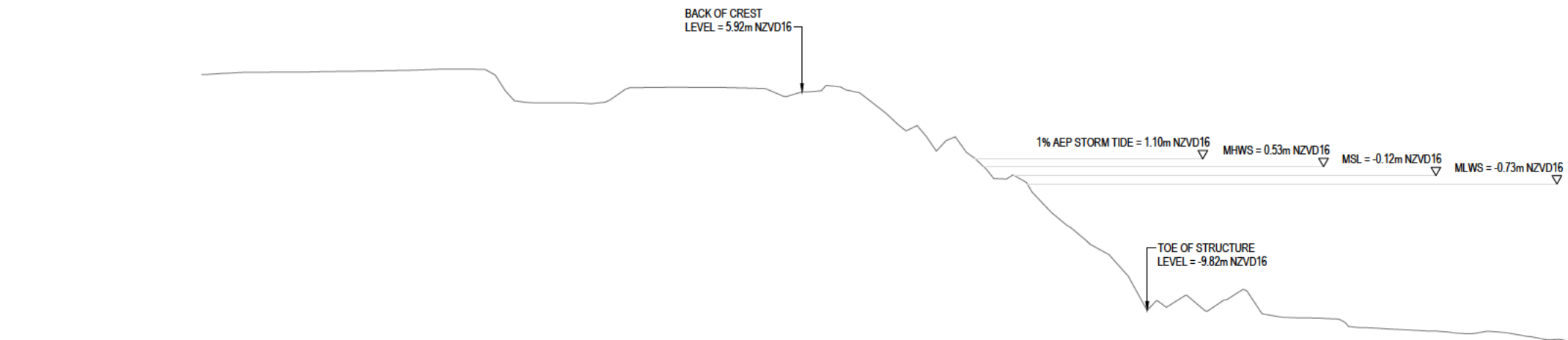
- EXISTING GROUND
- TIDE LEVELS



Datum -10.00

CHAINAGE	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98
EXISTING SURFACE LEVEL	5.42	4.42	3.75	2.16	2.14	2.26	2.37	2.45	2.57	3.15	4.11	5.40	6.02	6.71	6.78	6.71	6.68	6.67	6.74	7.00	6.51	5.42	5.14	5.33	4.61	3.81	2.38	1.72	0.53	-0.16	-0.46	-1.25	-2.30	-2.80	-2.51	-2.79	-3.67	-3.44	-4.13	-3.67	-4.43	-4.76	-4.41	-4.94	-4.93	-5.07	-5.07	-5.09	-5.13
OLS LEVEL	8.27	8.56	8.86	9.15	9.45	9.74	10.03	10.33	10.62	10.91	11.21	11.50	11.79	12.09	12.38	12.67	12.95	13.23	13.51	13.79	14.07	14.35	14.63	14.91	15.19	15.47	15.75	16.02	16.30	16.58	16.87	17.15	17.44	17.73	18.02	18.30	18.59	18.88	19.16	19.44	19.72	20.00	20.28	20.56	20.84	21.12	21.40	21.68	21.96

1 SECTION AT SS-CH 60
SK002 SCALE 1:200



Datum -15.00

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EXISTING SURFACE LEVEL	7.28	7.34	7.36	7.37	7.41	7.43	7.46	7.52	7.58	7.55	5.88	5.14	5.13	5.07	5.72	6.24	6.25	6.23	6.23	6.18	5.61	5.95	6.30	5.46	3.80	3.04	2.52	0.92	-0.36	-1.39	-3.35	-4.98	-6.42	-9.46	-9.38	-9.53	-9.05	-9.31	-10.34	-10.40	-10.46	-11.10	-11.21	-11.31	-11.42	-11.48	-11.45	-11.76	-11.94
OLS LEVEL	8.29	8.31	8.32	8.34	8.36	8.38	8.40	8.42	8.44	8.46	8.48	8.50	8.52	8.54	8.56	8.57	8.59	8.61	8.63	8.65	8.67	9.15	9.18	9.21	9.24	9.27	9.31	9.34	9.37	9.40	9.43	9.46	9.49	9.52	9.55	9.58	9.69	9.88	10.06	10.24	10.42	10.60	10.78	10.96	11.15	11.33	11.50	11.68	11.86

2 SECTION AT SS-CH 160
SK002 SCALE 1:200

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G	FOR RESOURCE CONSENT	CFP	JH	JH	28.07.25	AS SHOWN	Drawn	TS	08.04.25	
F	FOR RESOURCE CONSENT	TS	AS	JH	08.04.25	Reduced Scale (A3)	Day Checker	JH	08.04.25	
E	FOR RESOURCE CONSENT	AF	AS	JH	28.02.25	HALF SHOWN	Day Checker	JH	08.04.25	Date
No.	Revision	By	Chk	Appd	Date					



Client: WIAL SEA DEFENCE STRUCTURES RENEWAL

Project: EXISTING SECTIONS SHEET 1 OF 3

Discipline: CIVIL ENGINEERING
Drawing No: 3324338-CA-SK003
Rev: H

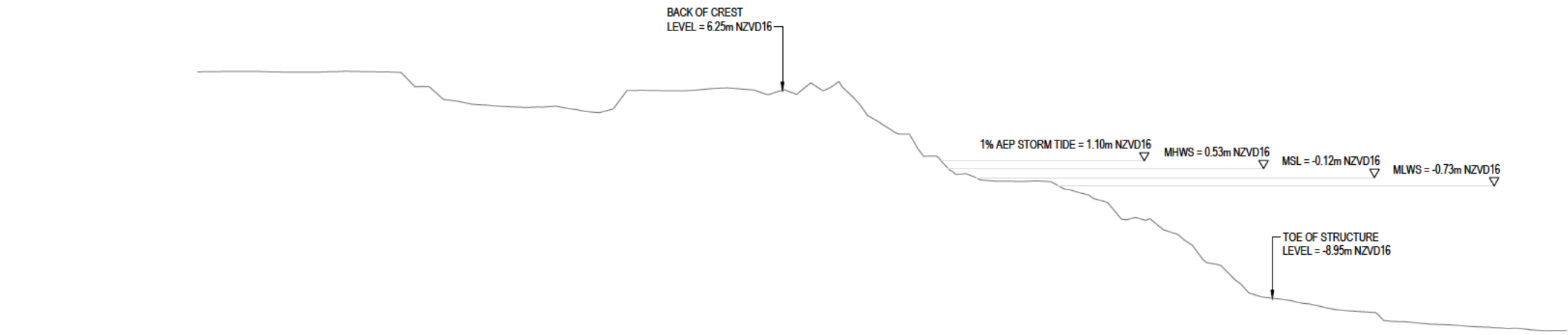
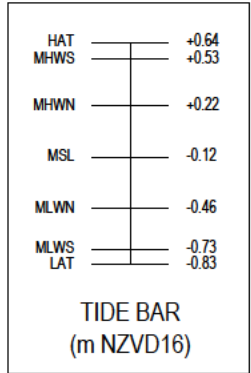


NOTES:

1. HORIZONTAL COORDINATE SYSTEM: NEW ZEALAND TRANSVERSE MERCATOR (NZTM2000).
2. VERTICAL DATUM TO NEW ZEALAND VERTICAL DATUM 2016 (NZVD16).
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4. TOPOGRAPHIC SURVEY DATA:
 - BECA DRONE SURVEY JAN 2024.
5. CREST AND TOE MARKS ARE INDICATIVE ONLY.

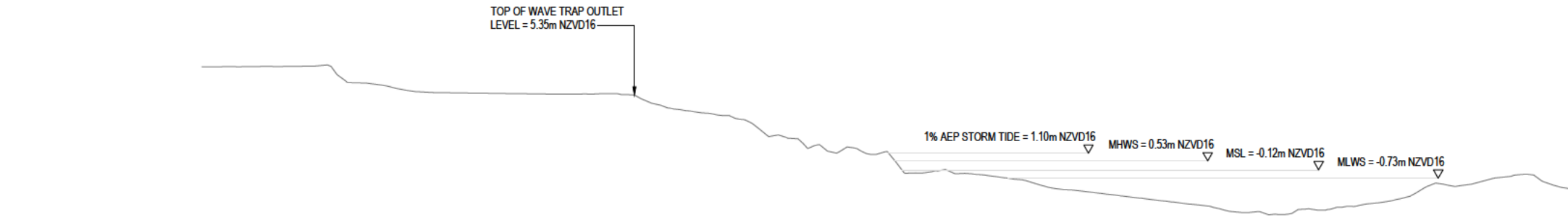
LEGEND:

- EXISTING GROUND
- TIDE LEVELS



CHAINAGE	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98
EXISTING SURFACE LEVEL	7.63	7.63	7.59	7.58	7.62	7.63	7.59	6.52	5.58	5.25	5.10	5.00	5.08	4.76	4.79	6.25	6.23	6.24	6.40	6.32	6.03	6.15	6.35	5.62	3.78	3.04	1.45	0.15	-0.37	-0.41	-0.41	-1.11	-1.81	-3.17	-3.48	-4.64	-6.39	-7.76	-8.88	-9.15	-9.54	-9.87	-9.98	-10.66	-10.83	-10.93	-11.05	-11.16	-11.30
OLS LEVEL	8.53	8.56	8.58	8.61	8.63	8.65	8.68	8.70	8.73	8.75	8.78	8.80	8.83	8.85	8.88	8.90	8.92	8.95	8.97	9.00	9.02	9.05	9.07	9.10	9.12	9.15	9.17	9.19	9.22	9.24	9.27	9.29	9.32	9.34	9.37	9.39	9.42	9.44	9.46	9.49	9.51	9.54	9.56	9.59	9.61	9.64	9.66	9.69	9.71

3 SECTION AT SS-CH 250
SK002 SCALE 1:200



CHAINAGE	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98
EXISTING SURFACE LEVEL	7.42	7.43	7.44	7.46	6.74	6.22	5.88	5.58	5.51	5.47	5.46	5.43	5.42	5.42	5.45	5.12	4.43	4.12	3.86	3.38	2.41	1.73	1.18	1.35	1.22	-0.35	-0.16	-0.40	-0.62	-0.87	-1.44	-1.65	-1.88	-2.12	-2.36	-2.60	-2.90	-3.24	-3.40	-3.08	-3.06	-2.80	-2.52	-2.11	-1.14	-1.27	-0.84	-0.50	-0.99
OLS LEVEL	8.54	8.56	8.58	8.60	8.62	8.63	8.65	8.67	8.69	8.71	8.73	8.75	8.77	9.15	9.34	9.37	9.40	9.43	9.46	9.49	9.52	9.55	9.58	9.62	9.65	9.68	9.71	9.74	9.77	9.82	10.01	10.19	10.37	10.55	10.74	10.91	11.10	11.28	11.46	11.64	11.82	12.00	12.19	12.37	12.55	12.73	12.91	13.09	13.28

4 SECTION AT SS-CH 330
SK002 SCALE 1:200

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F	FOR RESOURCE CONSENT	TS	AS	JH	08.04.25	Reduced Scale (A3)	Day Verifier	JH	08.04.25	
E	FOR RESOURCE CONSENT	AF	AS	JH	28.02.25		Day Check	JH	08.04.25	
No.	Revision	By	Chk	Appd	Date	HALF SHOWN	* Refer to Revision 1 for Original Signature			



Client: WIAL SEA DEFENCE STRUCTURES RENEWAL

Project: EXISTING SECTIONS SHEET 2 OF 3

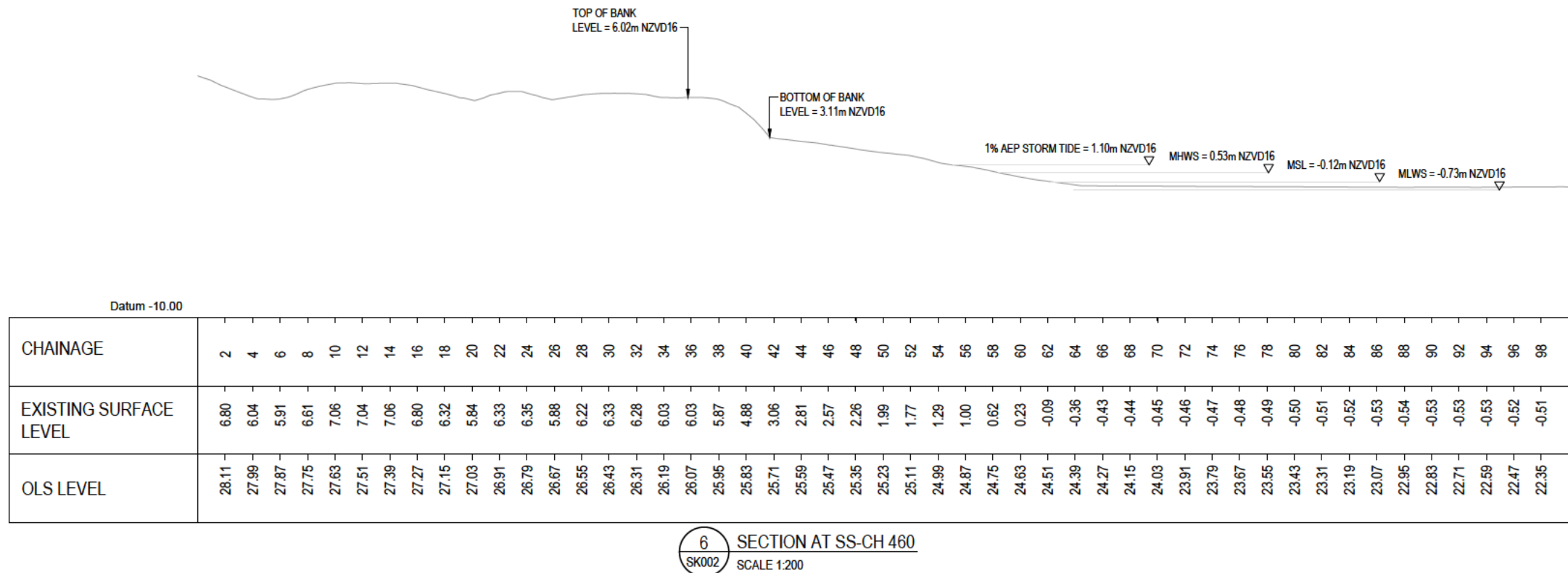
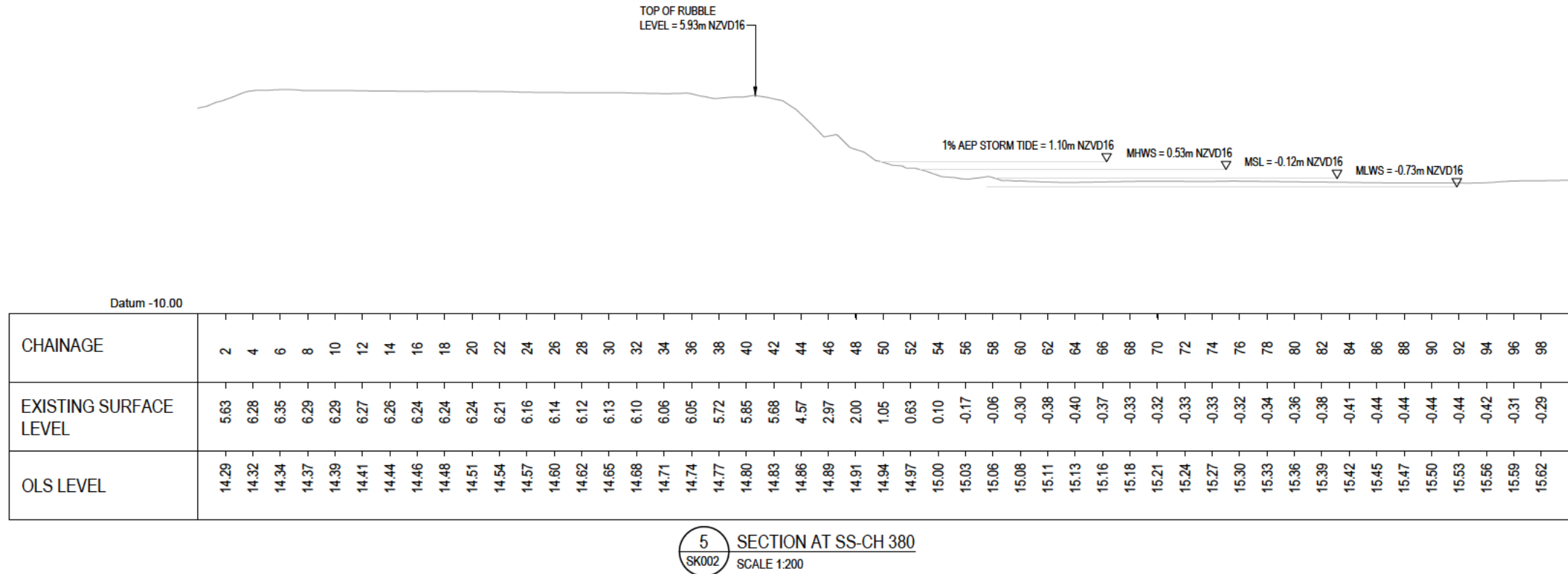
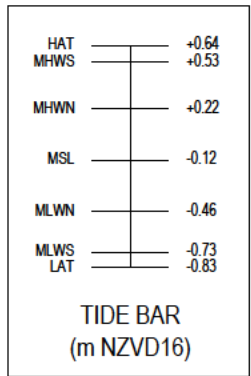
Discipline: CIVIL ENGINEERING
Drawing No: 3324338-CA-SK004
Rev: H

NOTES:

1. HORIZONTAL COORDINATE SYSTEM: NEW ZEALAND TRANSVERSE MERCATOR (NZTM2000).
2. VERTICAL DATUM TO NEW ZEALAND VERTICAL DATUM 2016 (NZVD16).
3. BATHYMETRIC SURVEY DATA:
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4. TOPOGRAPHIC SURVEY DATA:
 - BECA DRONE SURVEY JAN 2024.
5. CREST AND TOE MARKS ARE INDICATIVE ONLY.

LEGEND:

- EXISTING GROUND
- TIDE LEVELS



H	FOR RESOURCE CONSENT	CFP	JH	JH	14.08.25
G	FOR RESOURCE CONSENT	CFP	JH	JH	28.07.25
F	FOR RESOURCE CONSENT	TS	AS	JH	08.04.25
E	FOR RESOURCE CONSENT	AF	AS	JH	28.02.25
No.	Revision	By	Chk	Appd	Date

Original Scale (A1)	Design	AS & WP	08.04.25	Approved For Construction*
AS SHOWN	Drawn	TS	08.04.25	
Reduced Scale (A3)	Day Verifier	JH	08.04.25	
HALF SHOWN	Day Check	JH	08.04.25	Date
* Refer to Revision 1 for Original Signature				



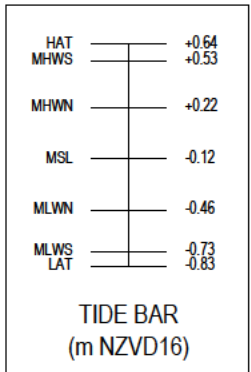
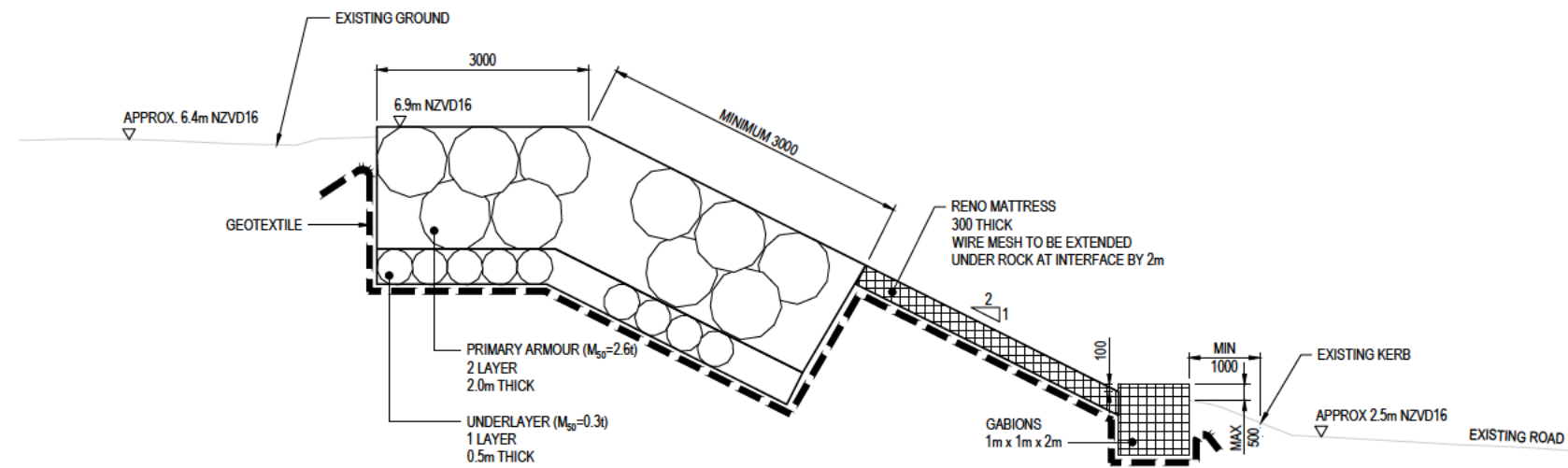
Client: WIAL SEA DEFENCE STRUCTURES RENEWAL

Project: EXISTING SECTIONS SHEET 3 OF 3

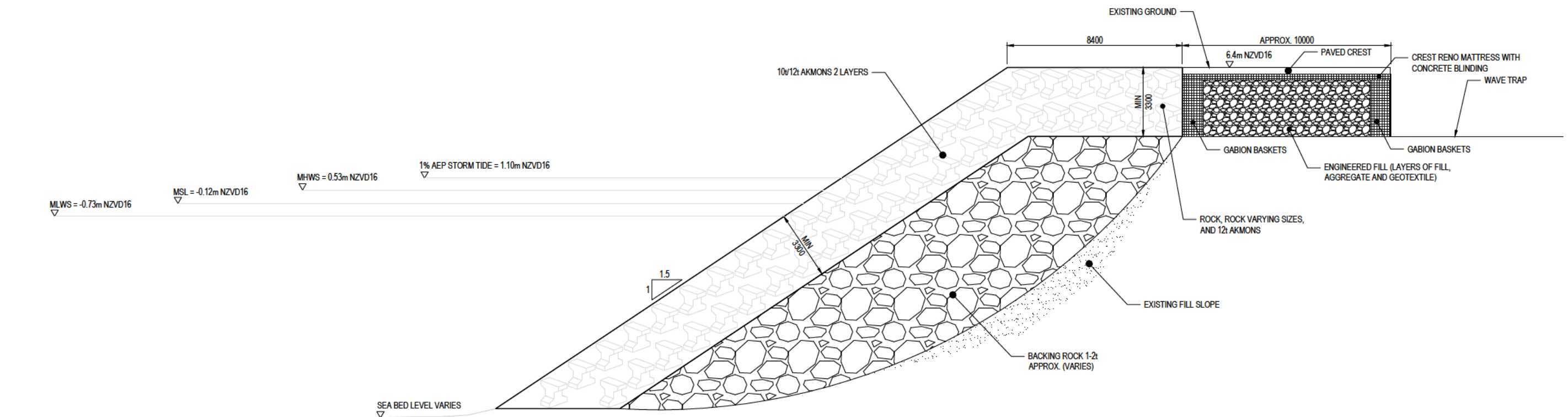
Discipline	CIVIL ENGINEERING
Drawing No.	3324338-CA-SK005
Rev.	H

NOTES:

1. VERTICAL DAT M TO NEW ZEALAND VERTICAL DATUM 2016 (NZVD16).
2. ALL DIMENSION ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
3. REAR SLOPE PROTECTION DESIGNED BY BECA IN 2016, TYPICAL SECTION SHOWS DESIGN NOT AS BUILT STRUCTURE.
4. EXISTING AKMON ARMoured SEAWALL IS INDICATIVE ONLY. THE AS-BUILT DRAWINGS ARE NOT AVAILABLE AND INFORMATION IS LIMITED



TYPICAL DESIGN SECTION OF EXISTING REAR SLOPE PROTECTION
SCALE 1:50



INDICATIVE DESIGN SECTION OF EXISTING SOUTHERN SEAWALL (PRESENT DAY ACTUAL SEAWALL DIFFERS)
SCALE 1:100

G	FOR RESOURCE CONSENT	CFP	JH	JH	30.06.25	Original Scale (A1)	Design	AS & WP	08.04.25	Approved For Construction*
F	FOR RESOURCE CONSENT	TS	AS	JH	08.04.25	AS SHOWN	Drawn	TS	08.04.25	
E	FOR RESOURCE CONSENT	AF	AS	JH	28.02.25	Reduced Scale (A3)	Day Verifier	JH	08.04.25	
D	FOR RESOURCE CONSENT	TS	AS	JH	06.12.24		Day Check	JH	08.04.25	
No.	Revision	By	Chk	Appd	Date	HALF SHOWN	* Refer to Revision 1 for Original Signature			

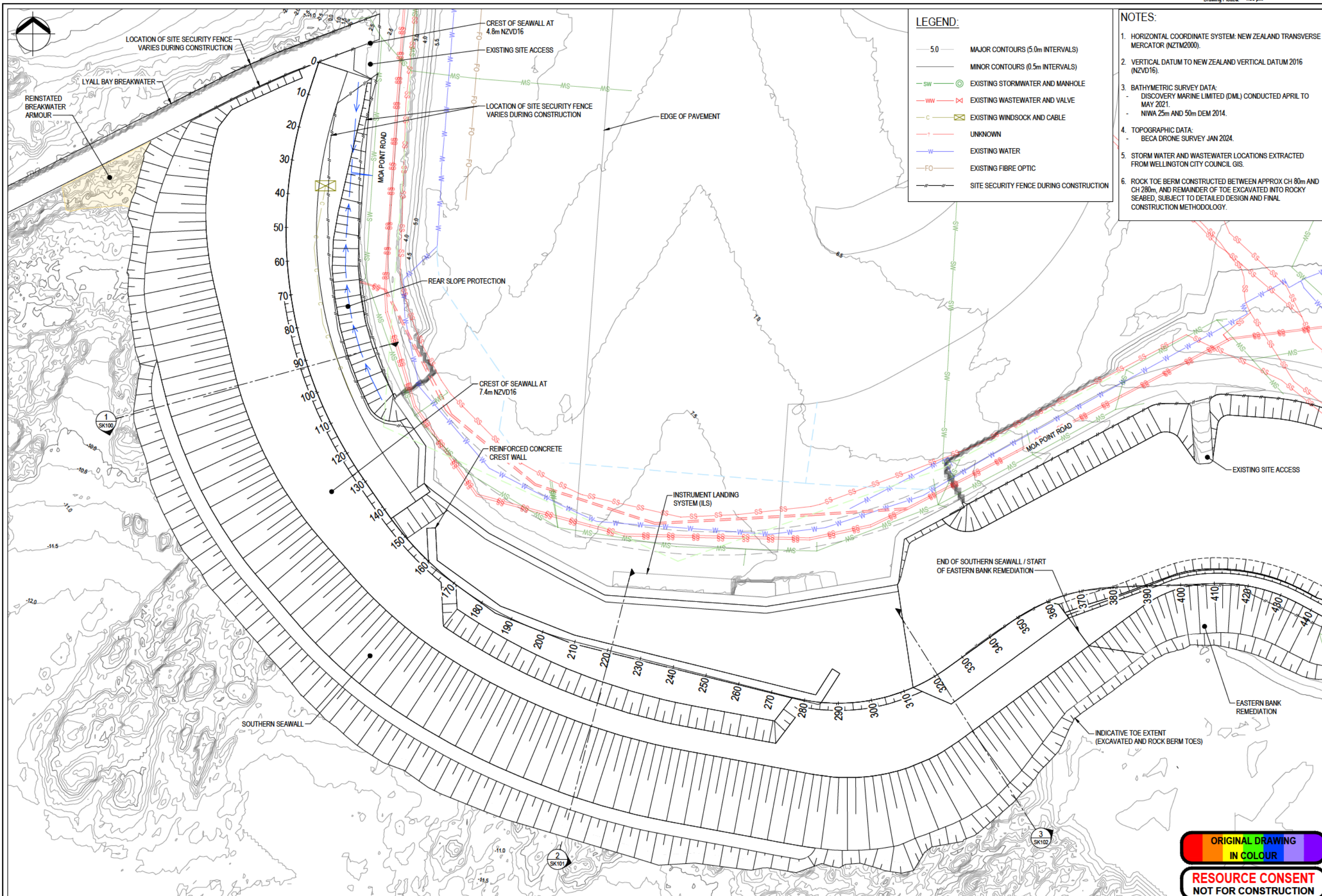


Project: WIAL SEA DEFENCE
STRUCTURES RENEWAL

Title: EXISTING STRUCTURES
TYPICAL SECTIONS

Discipline	CIVIL ENGINEERING
Drawing No.	3324338-CA-SK006
Rev.	G

RESOURCE CONSENT
NOT FOR CONSTRUCTION



I	FOR RESOURCE CONSENT	CFP	JH	JH	14.08.25	Original	Design	AS & WP	08.04.25	Approved For
H	FOR RESOURCE CONSENT	CFP	JH	JH	28.07.25	Scale (A1)	Drawn	TS	08.04.25	Construction*
G	FOR RESOURCE CONSENT	CFP	JH	JH	30.06.25	1:500	Day Verifier	JH	08.04.25	
F	FOR RESOURCE CONSENT	TS	AS	JH	08.04.25	Reduced	Day Check	JH	08.04.25	Date
No.	Revision	By	Chk	Appd	Date	Scale (A3)	1:1000	* Refer to Revision 1 for Original Signature		

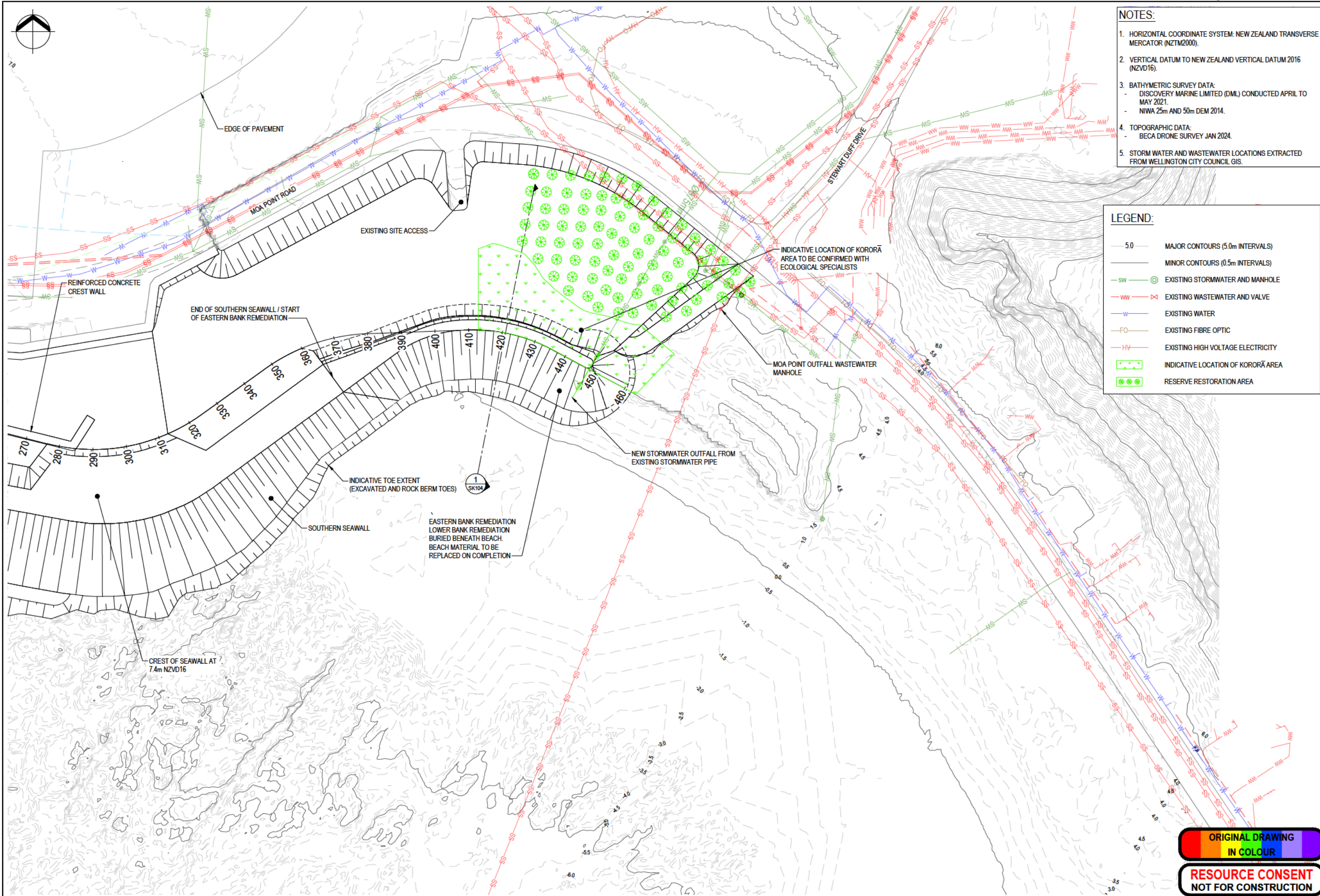
Beca**WLG**Project: WIAL SEA DEFENCE
STRUCTURES RENEWALTitle: GENERAL ARRANGEMENT
SOUTHERN SEAWALL

Discipline: CIVIL ENGINEERING

Drawing No. 3324338-CA-SK007

Rev. 1

**ORIGINAL DRAWING
IN COLOUR**
**RESOURCE CONSENT
NOT FOR CONSTRUCTION**



- NOTES:**
- HORIZONTAL COORDINATE SYSTEM: NEW ZEALAND TRANSVERSE MERCATOR (NZTM2000).
 - VERTICAL DATUM TO NEW ZEALAND VERTICAL DATUM 2016 (NZVD16).
 - BATHYMETRIC SURVEY DATA:
 - DISCOVERY MARINE LIMITED (DML) CONDUCTED APRIL TO MAY 2021.
 - NIWA 25m AND 50m DEM 2014.
 - TOPOGRAPHIC DATA:
 - BECA DRONE SURVEY JAN 2024.
 - STORM WATER AND WASTEWATER LOCATIONS EXTRACTED FROM WELLINGTON CITY COUNCIL GIS.

- LEGEND:**
- 5.0 MAJOR CONTOURS (5.0m INTERVALS)
 - MINOR CONTOURS (0.5m INTERVALS)
 - SW EXISTING STORMWATER AND MANHOLE
 - WW EXISTING WASTEWATER AND VALVE
 - W EXISTING WATER
 - FO EXISTING FIBRE OPTIC
 - HV EXISTING HIGH VOLTAGE ELECTRICITY
 - INDICATIVE LOCATION OF KORORĀ AREA
 - RESERVE RESTORATION AREA

J	FOR RESOURCE CONSENT	CFP	JH	JH	25.08.25	Original Scale (A1)	Design	AS & WP	08.04.25	Approved For Construction*
I	FOR RESOURCE CONSENT	CFP	JH	JH	14.08.25	1:500	Drawn	TS	08.04.25	
H	FOR RESOURCE CONSENT	CFP	JH	JH	28.07.25	Reduced Scale (A3)	Day Checker	JH	08.04.25	
G	FOR RESOURCE CONSENT	CFP	JH	JH	30.06.25	1:1000	Day Check	JH	08.04.25	Date
No.	Revision	By	Chk	Appd	Date		* Refer to Revision 1 for Original Signature			

Client:

Project: WIAL SEA DEFENCE STRUCTURES RENEWAL

Title: GENERAL ARRANGEMENT EASTERN BANK REMEDIATION

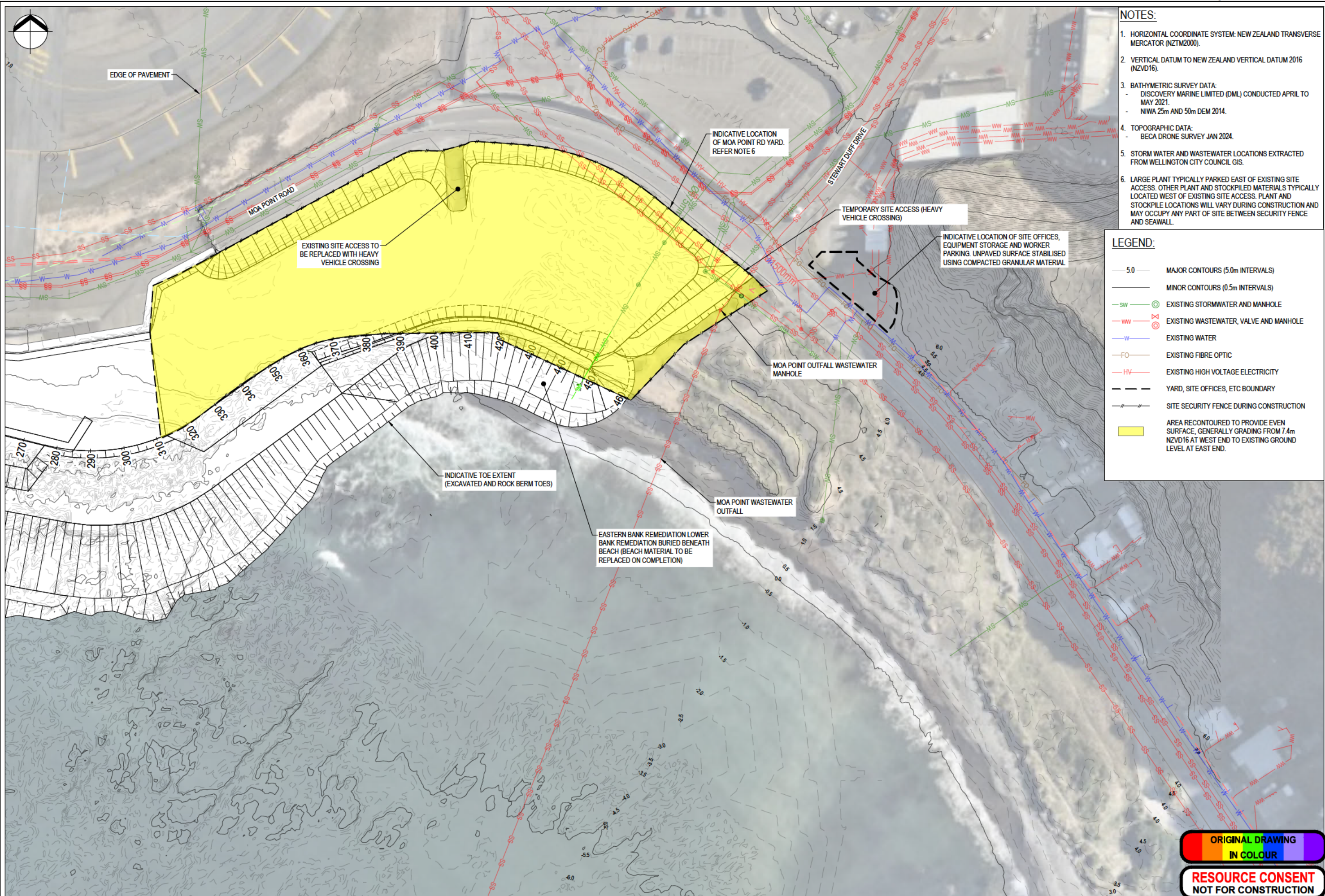
Discipline: CIVIL ENGINEERING

Drawing No. 3324338-CA-SK008

Rev. J

Document No. 3324338-CA-SK008.DWG

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L	FOR RESOURCE CONSENT	CFP	JH	JH	29.08.25	Original	Design	AS & WP	08.04.25	Approved For
K	FOR RESOURCE CONSENT	CFP	JH	JH	25.08.25	Scale (A1)	Drawn	TS	08.04.25	Construction*
J	FOR RESOURCE CONSENT	CFP	JH	JH	28.07.25	1:500	Day Verifier	JH	08.04.25	
I	FOR RESOURCE CONSENT	CFP	JH	JH	30.06.25	Reduced	Day Check	JH	08.04.25	Date
No.	Revision	By	Chk	Appd	Date	Scale (A3)	1:1000	* Refer to Revision 1 for Original Signature		



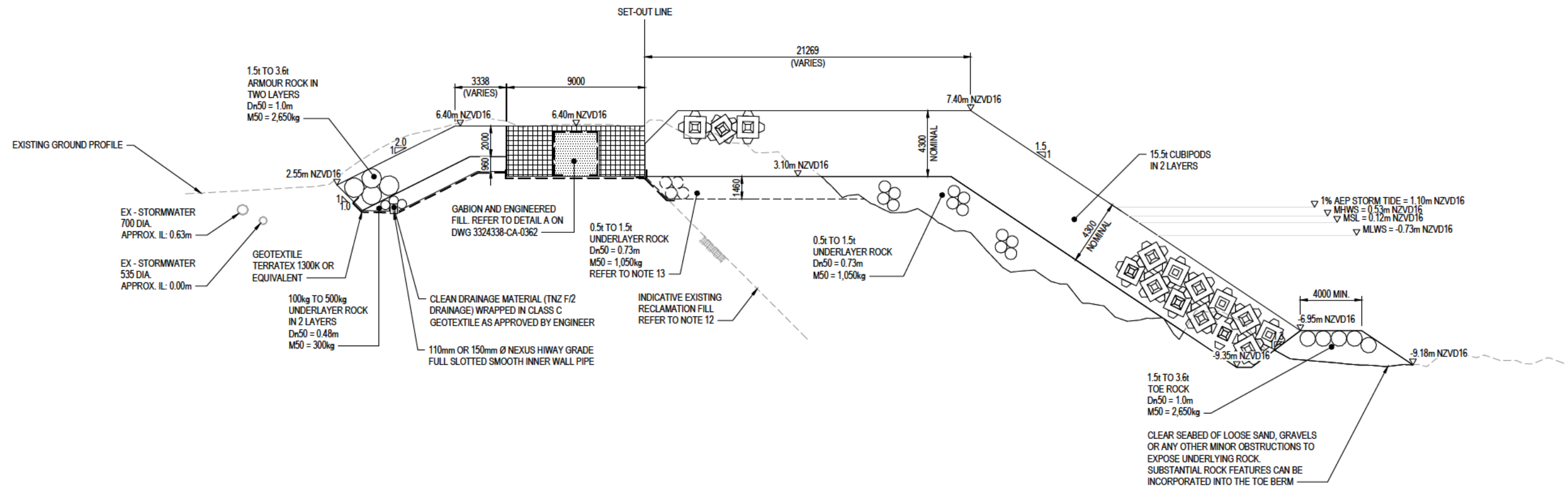
Client: WIAL SEA DEFENCE STRUCTURES RENEWAL

Project: GENERAL ARRANGEMENT MOA POINT RD YARD

Discipline: CIVIL ENGINEERING
Drawing No. 3324338-CA-SK009
Rev. L

NOTES:

1. VERTICAL DATUM TO NEW ZEALAND VERTICAL DATUM 2016 (NZVD16).
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
3. BATHYMETRIC SURVEY DATA:
 - DISCOVERY MARINE LIMITED (DML) CONDUCTED APRIL TO MAY 2021.
4. ANY EXCAVATED UNSUITABLE MATERIAL FROM THE BANK TO BE REMOVED OFF SITE AND DISPOSED OF APPROPRIATELY.



1 SECTION AT CH90 - REAR SLOPE PROTECTION AND SEAWALL
SK007 SCALE 1:150

H	FOR RESOURCE CONSENT	CFP	JH	JH	28.07.25	Original Scale (A1)	Design	AS & WP	08.04.25	Approved For Construction*
G	FOR RESOURCE CONSENT	CFP	JH	JH	30.06.25	AS SHOWN	Drawn	TS	08.04.25	
F	FOR RESOURCE CONSENT	TS	AS	JH	08.04.25	Reduced Scale (A3)	Day Checker	JH	08.04.25	
E	FOR RESOURCE CONSENT	AF	AS	JH	28.02.25	HALF SHOWN	Day Check	JH	08.04.25	
No.	Revision	By	Chk	Appd	Date	* Refer to Revision 1 for Original Signature				



Client: WIAL SEA DEFENCE STRUCTURES RENEWAL

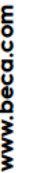
Project: SOUTHERN SEAWALL SECTIONS SHEET 1 OF 3

Discipline	CIVIL ENGINEERING
Drawing No.	3324338-CA-SK100
Rev.	H

RESOURCE CONSENT
NOT FOR CONSTRUCTION

NOTES:

1. VERTICAL DATUM TO NEW ZEALAND VERTICAL DATUM 2016 (NZVD16).
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
3. BATHYMETRIC SURVEY DATA:
 - DISCOVERY MARINE LIMITED (DML) CONDUCTED APRIL TO MAY 2021.
4. UNDERLAYER ROCK WILL BE USED TO FORM AN EVEN REGULAR 1V:1.5H SLOPE. THE UNDERLAYER SURFACE MAY HAVE EXPOSED AKMON SURFACES AS WELL AS ROCK.
5. SATO CUBIPOD PLACEMENT GRID AND EXISTING PROFILE TO CONFIRM CREST DIMENSIONS.
6. DEPTH OF SAND AND GRAVEL ABOVE ROCK LEVEL VARIES FROM 0.1m TO APPROXIMATELY 0.5m TO 1m.

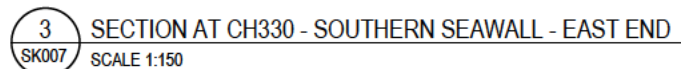


Discipline		CIVIL ENGINEERING
Drawing No.	3324338-CA-SK101	Rev. H

RESOURCE CONSENT
NOT FOR CONSTRUCTION

TIDE BAR
(m NZVD16)

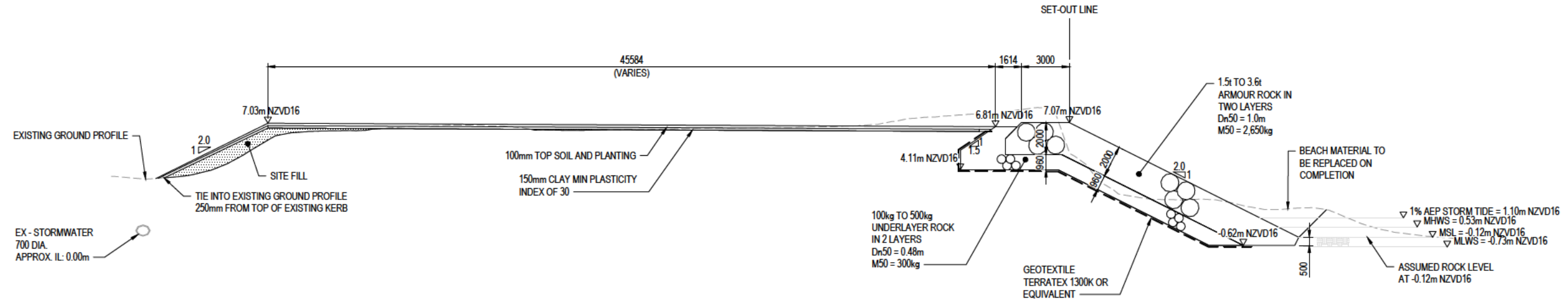
1. VERTICAL DATUM TO NEW ZEALAND VERTICAL DATUM 2016 (NZVD16).
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
3. BATHYMETRIC SURVEY DATA:
 - DISCOVERY MARINE LIMITED (DML) CONDUCTED APRIL TO MAY 2021.
4. UNDERLAYER ROCK WILL BE USED TO FORM AN EVEN REGULAR 1V:1.5H SLOPE. THE UNDERLAYER SURFACE MAY HAVE EXPOSED AKMON SURFACES AS WELL AS ROCK.
5. SATO CUBIPOD PLACEMENT GRID AND EXISTING PROFILE TO CONFIRM CREST DIMENSIONS.



Discipline	CIVIL ENGINEERING	
Drawing No.	3324338-CA-SK102	Revision

HAT	+0.64
MHWS	+0.53
MHWN	+0.22
MSL	-0.12
MLWN	-0.46
MLWS	-0.73
LAT	-0.83
TIDE BAR (m NZVD16)	

- NOTES:
- VERTICAL DATUM TO NEW ZEALAND VERTICAL DATUM 2016 (NZVD16).
 - ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
 - BATHYMETRIC SURVEY DATA:
- DISCOVERY MARINE LIMITED (DML) CONDUCTED APRIL TO MAY 2021.
 - TOE TO BE A MIN. 1650 BELOW EXISTING BEACH LEVEL IF ROCK SEABED IS ENCOUNTERED KEY TOE IN BY A MIN 0.5Dn50.
 - EXISTING BANK AND HINTERLAND TO BE LANDSCAPED FOR TEMPORARY LAY DOWN AREA AND PENGUIN HABITAT IN THE EXTENTS SHOWN ON SK009.



1 SECTION AT CH 420 - EASTERN BANK REMEDIATION
SK-008 SCALE 1:150

J	FOR RESOURCE CONSENT	CFP	JH	JH	25.08.25	Original Scale (A1)	Design	AS & WP	08.04.25	Approved For Construction*
I	FOR RESOURCE CONSENT	CFP	JH	JH	28.07.25	AS SHOWN	Drawn	TS	08.04.25	
H	FOR RESOURCE CONSENT	CFP	JH	JH	30.06.25	Reduced Scale (A3)	Doc Verifier	JH	08.04.25	
G	FOR RESOURCE CONSENT	MJVR	AS	JH	10.06.25	HALF SHOWN	Doc Check	JH	08.04.25	
No.	Revision	By	Chk	Appd	Date	* Refer to Revision 1 for Original Signature				



Client: WIAL SEA DEFENCE STRUCTURES RENEWAL

Project: EASTERN BANK REHABILITATION SECTION

Discipline	CIVIL ENGINEERING
Drawing No.	3324338-CA-SK104
Rev.	J

RESOURCE CONSENT
NOT FOR CONSTRUCTION



- NOTES:**
- 1. HORIZONTAL COORDINATE SYSTEM: NEW ZEALAND TRANSVERSE MERCATOR (NZTM2000).
 - 2. VERTICAL DAT M TO NEW ZEALAND VERTICAL DATUM 2016 (NZVD16).
 - 3. BATHYMETRIC SURVEY DATA:
 - DISCOVERY MARINE LIMITED (DML) CONDUCTED APRIL TO MAY 2021.
 - 4. TOPOGRAPHIC DATA:
 - BECA DRONE SURVEY JAN 2024 AND WCC LIDAR 2024.
 - 5. TOE, MHWS LINE AND STRUCTURES AS SHOWN ARE INDICATIVE ONLY. EXISTING AND PROPOSED MHWS LINE ON EASTERN BANK REHABILITATION VARY, DEPENDING ON BEACH LEVELS.

LEGEND:

5.0	MAJOR CONTOURS (5.0m INTERVALS)
	MINOR CONTOURS (0.5m INTERVALS)
	WAVE TRAP
	INDICATIVE STRUCTURE / BANK TOE

PARAMETER	QUANTITY
INCREASE IN PROPOSED SEAWALL WIDTH (AT EXISTING FORMAL SEAWALL)	~20-30m
INCREASE IN PROPOSED SEAWALL FOOTPRINT	UP TO 12,000m ²

F	FOR RESOURCE CONSENT	CFP	JH	JH	28.07.25
E	FOR RESOURCE CONSENT	CFP	JH	JH	30.06.25
D	FOR RESOURCE CONSENT	MJVR	AS	JH	10.06.25
C	FOR RESOURCE CONSENT	TS	AS	JH	08.04.25
No.	Revision	By	Chk	Appd	Date

Original Scale (A1)	Design	AS & WP	08.04.25	Approved For Construction*
1:750	Drawn	TS	08.04.25	
Reduced Scale (A3)	Day Verifier	JH	08.04.25	
1:1500	Day Check	JH	08.04.25	
* Refer to Revision 1 for Original Signature				



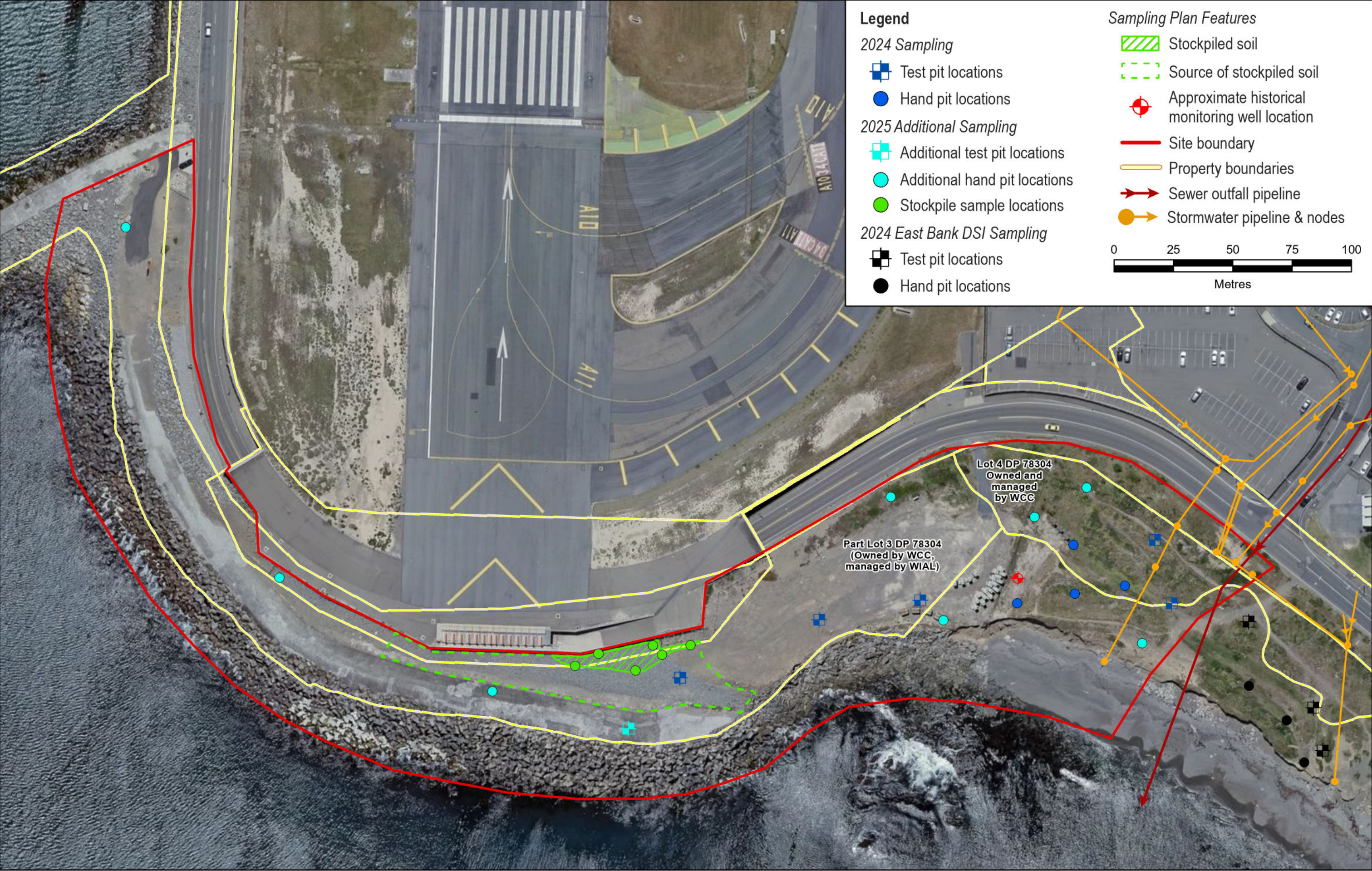
Client: **WIAL SEA DEFENCE STRUCTURES RENEWAL**

Title: **EXISTING AND PROPOSED SEAWALL TOE AND MHWS LOCATIONS**

Discipline	CIVIL ENGINEERING
Drawing No.	3324338-CA-SK105
Rev.	F

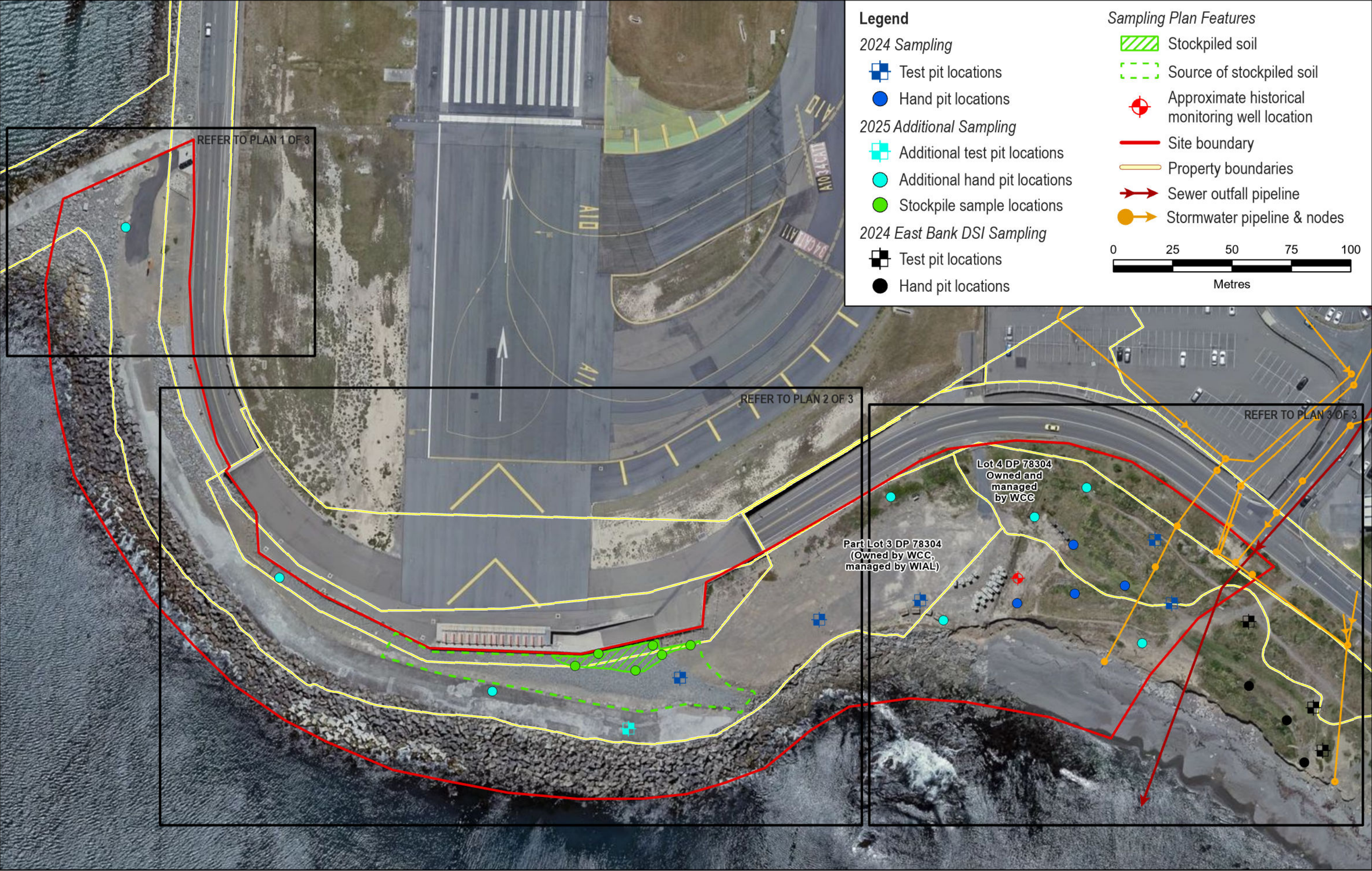
B

Appendix B – DSI Sample Location Plan



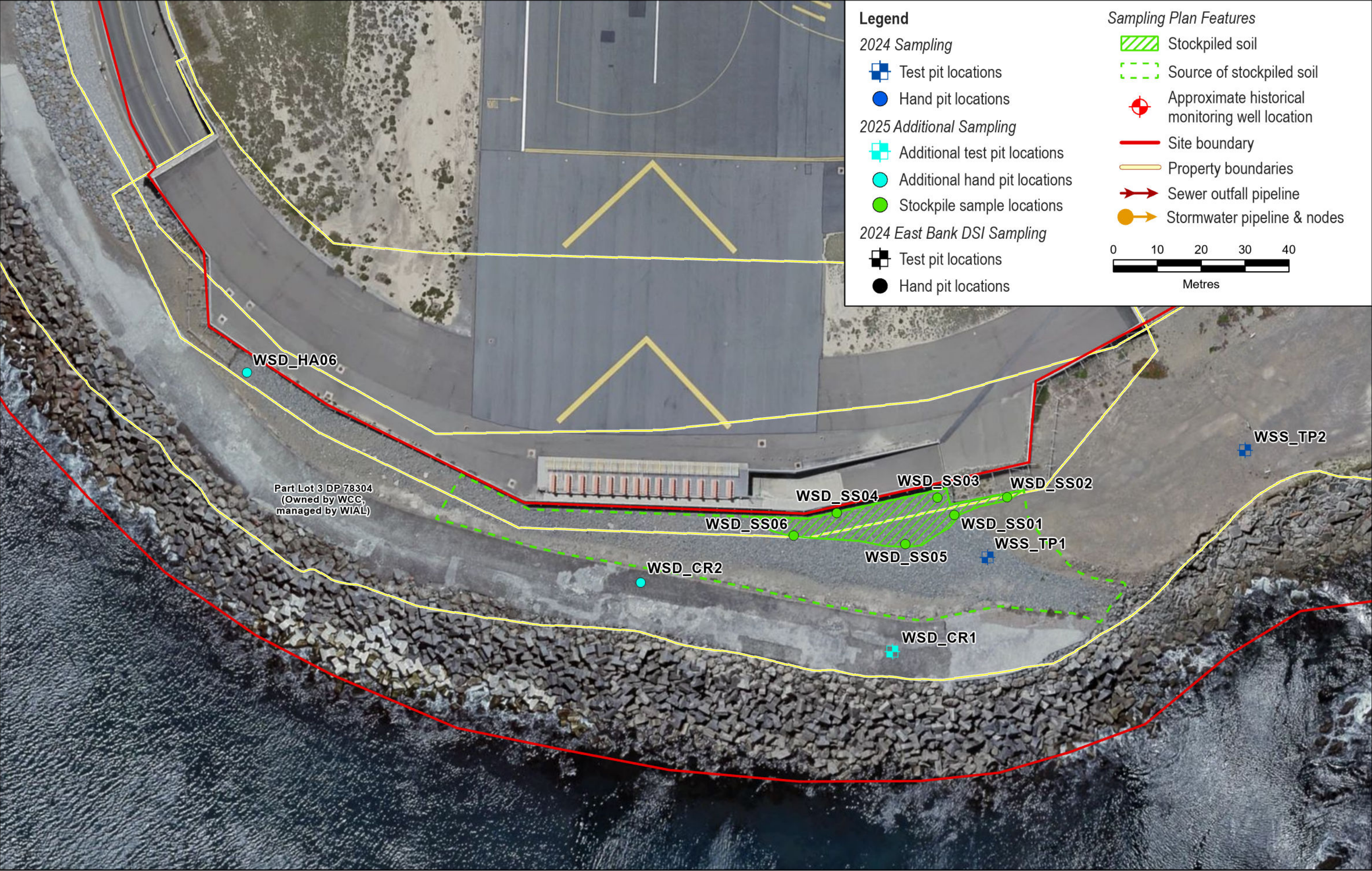
	Revision	Drawer	Verified	Approved	Date	Title: SAMPLING LOCATION PLAN (ENTIRE SITE)	Client: WELLINGTON INTERNATIONAL  WLG		Discipline: ENVIRONMENTAL	
	1	GJS			01.10.24					
	2	GJS			11.04.25		Project: SEA DEFENCES STRUCTURES RENEWAL			
	3	GJS			07.08.25					
Drawing No. 3324338-3										

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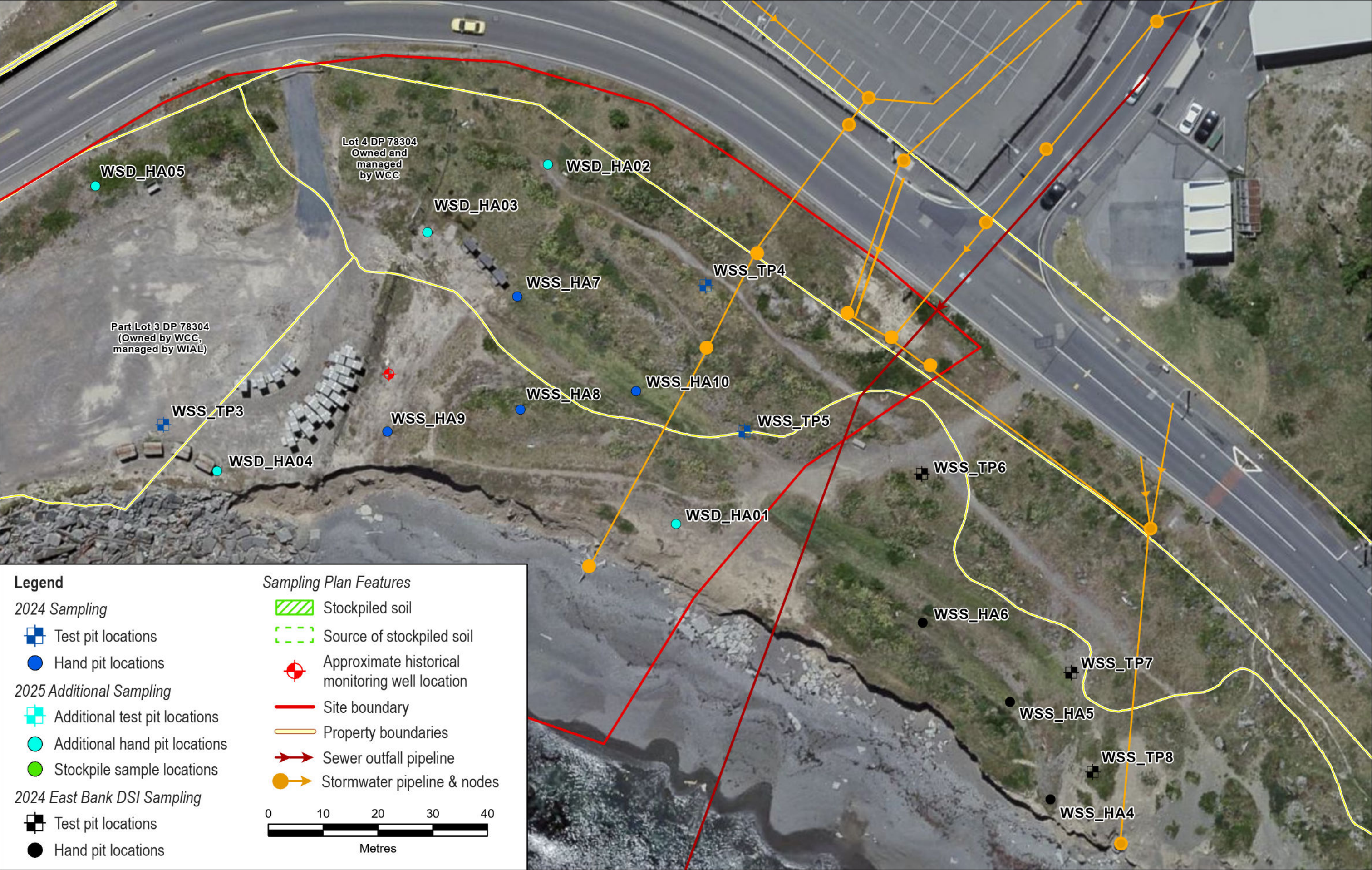


	Revision	Drawer	Verified	Approved	Date	Title: SAMPLING LOCATION PLAN (ENTIRE SITE)	Client: WELLINGTON INTERNATIONAL  WLG		Discipline:	ENVIRONMENTAL
	1	GJS			01.10.24				Project: SEA DEFENCES STRUCTURES RENEWAL	Drawing No. 3324338-3
	2	GJS			11.04.25					
	3	GJS			07.08.25					

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	Revision	Drawer	Verified	Approved	Date	Title: SAMPLING LOCATION PLAN (PLAN 2 OF 3)	Client: WELLINGTON INTERNATIONAL  WLG		Discipline: ENVIRONMENTAL	
	1	GJS			01.10.24					
	2	GJS			11.04.25		Project: SEA DEFENCES STRUCTURES RENEWAL		Drawing No. 3324338-3.2	
	3	GJS			07.08.25					



N	Revision	Drawer	Verified	Approved	Date	Title: SAMPLING LOCATION PLAN (PLAN 3 OF 3)	Client: WELLINGTON INTERNATIONAL AIRPORT LIMITED	WLG	Beca	Discipline: ENVIRONMENTAL			
	1	GJS			01.10.24					Drawing No. 3324338-3.3			
	2	GJS			11.04.25		Project: SEA DEFENCES STRUCTURES RENEWAL						
	3	GJS			07.08.25								

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C

Appendix C – Site-wide Contaminated Land Management Plan Checklist

CONTAMINATED LAND MANAGEMENT PLAN (CLMP) CHECKLIST

This form **must be completed for all earthworks related projects** that occur on the WIAL Site. **Contractors are required to complete Section 1 – 3.** A suitably qualified and experienced person (SQEP) is required to complete Section 4. Upon completion, this form should be provided to the WIAL Environmental Manager.

1. GENERAL INFORMATION

Contractor:	Date(s) of work:
Name of SQEP:	Company:
WIAL Project Name:	

2. SITE LOCATION

Project Location: *Indicate on attached map where works have occurred.*

Risk Area (as indicated on map): ☒ High (red) ☐ Medium (yellow) ☐ Low (green) *(refer to Section 7.2)*

Approx. Area of Site (m²):

3. BRIEF SUMMARY OF WORKS:

☐ Contractor provided any disposal receipts to the SQEP

☐ Any other data required for the SQEP to complete Section 4 below (i.e. dewatering or asbestos specific work). If so specify, data or documents provided to SQEP below:

Section 4 below must be completed by a SQEP.

4. SQEP OVERSIGHT AREA

4.1 TESTING *(refer to Section 9.3)*

Was testing completed? ☐ Yes ☐ No

If yes, attach the following:

- ☐ Sample results laboratory report

4.2 DISPOSAL *(refer to Section 10)*

Soil disposed of off-Site? ☐ Yes ☐ No

If yes, attach the following:

- ☐ Disposal location approval by SQEP
- ☐ Disposal receipts received from facility

Type of Disposal Facility:

- ☐ Cleanfill
- ☐ Managed fill
- ☐ Hazardous fill ☐ Other: _____

4.3 EROSION & SEDIMENT CONTROLS *(refer to Section 9.1)*

Nearby stormwater drains protected from sediment?

- ☐ Yes ☐ No

☐ Silt fences installed (if required)

- ☐ Appropriate barriers and/or signage placed to prevent unauthorised access (if required)

4.4 ASBESTOS MANAGEMENT *(refer to Section 7.6)*

- ☐ Class A ☐ Class B

- ☐ Asbestos related work

- ☐ Unlicensed Asbestos work

Indicate which controls have been implemented:

- ☐ Engage asbestos specialist
- ☐ Air Monitoring/Clearance Inspection
- ☐ Notify WorkSafe

4.5 DEWATERING *(refer to Section 7.7)*

Groundwater encountered? ☐ Yes ☐ No

If yes, consult SQEP/Hydrogeologist regarding consenting and dewatering management procedures.

4.6 RECORD KEEPING

Has SQEP referred to Section 11 to confirm all relevant record keeping requirements have been accounted for?

- ☐ Yes ☐ No

