

# 100 Halsey Street

## Stormwater Management Plan

1101937.1000-RPT-SW-101

Prepared for: NZCRE 100 Halsey Limited
Prepared by: Tonkin & Taylor Ltd
Job Number: 1101937.1000
Date: October 2026

www.tonkintaylor.com

## Document control and review

The purpose of this document is to set out the stormwater management for the proposed brownfields-large redevelopment and support adoption under the Auckland Council Network Discharge Consent (NDC).

| Title: Stormwater Management Plan - 100 Halsey Street - 1101937.1000-RPT-SW-101 | | | | | |
|---|---|---|---|---|---|
| **Date** | **Version** | **Description** | **Prepared by** | **Reviewed by** | **Authorised by** |
| 25.09.2026 | 1.0 | Draft for project team review | C. Arcus | T. Bassett | A. Hope |
| 8.10.2026 | 2.0 | Final for project team review | C. Arcus | T. Bassett | A. Hope |
| 20.10.2026 | 3.0 | Final issue | C. Arcus | T. Bassett | A. Hope |
| | | | | | |

DRAFT

# Table of contents


**1 Existing site appraisal 1**
1.1 Location and general information 1
1.2 Topography 3
1.3 Geotechnical 3
1.4 Contaminated land 3
1.5 Existing drainage features and stormwater infrastructure 4
1.5.1 Northern sub-catchment 4
1.5.2 Eastern sub-catchment 5
1.5.3 Southern sub-catchment 5
1.6 Existing piped network capacity assessment 6
1.7 Flooding and flow paths 6
1.8 Coastal inundation 7
1.9 Receiving environment 8
1.10 Site appraisal matters of limited relevance 9
**2 Development summary and planning context 10**
**3 Mana whenua: Te ao Māori and mātauranga 12**
3.1 Identification and incorporation of mana whenua values 12
**4 Other stakeholder engagement and consultation 13**
**5 Proposed development 14**
5.1 General development information 14
5.2 Earthworks 15
**6 Stormwater management 17**
6.1 Principles of stormwater management 17
6.2 Proposed stormwater management 17
6.2.1 General 17
6.2.2 Water quality 17
6.2.3 Stream hydrology 20
6.2.4 Network capacity 20
6.2.5 Overland flow path and floodplain management 21
6.2.6 Development and stormwater network staging 22
6.3 Asset ownership and ongoing maintenance requirements 24
6.4 Risks 24
**7 Departures from regulatory or design codes 26**
**8 Conclusions and recommendations for future work 27**
8.1 Conclusions 27
8.2 Recommendations 27
**9 Applicability 28**

**Appendix A Plans of existing site features**
**Appendix B Proposed development plans**
**Appendix C Preliminary stormwater capacity assessment**


DRAFT

## Executive summary

This Stormwater Management Plan (SMP) has been prepared for the proposed redevelopment of 100 Halsey Street within Auckland's Wynyard Precinct. The Site is currently occupied predominantly by the NZ Bus depot, including bus storage and manoeuvring areas, workshops, refuelling facilities, parking and associated commercial uses. Runoff is conveyed to the public stormwater networks in Pakenham Street West, Halsey Street and Gaunt Street, which discharge to the Viaduct Basin and wider Waitematā Harbour.

The proposed redevelopment will replace the bus depot with a high-density commercial development comprising five buildings, associated public-realm areas, service access, and approximately 600 m² of planted space. The Site will remain predominantly impervious, although the proportion of impervious area will reduce from approximately 100% to 96%. Existing drainage patterns and public network connections will generally be retained.

The stormwater management approach responds to the site's brownfield and reclaimed-land context, including historic fill and potential ground contamination associated with former transport, workshop and fuel-storage activities. Infiltration and soakage are therefore not proposed. Stormwater will instead be collected, treated and conveyed through lined systems that prevent interaction with potentially contaminated ground and groundwater.

The redevelopment will remove the existing high-contaminant-generating bus-depot trafficked surfaces, to be replaced with commercial, pedestrian, landscape and service areas. The proposed treatment measures will therefore improve stormwater quality outcomes and reduce significantly the risk of hydrocarbon, sediment and other vehicle-related contaminants conveyed into runoff to the receiving harbour environment.

The proposed treatment approach includes lined bioretention devices, (such as rain gardens, stormwater tree pits and planter boxes) integrated into the landscape and public-realm design. Where bioretention is not practicable from trafficked surfaces, proprietary treatment devices will be used. Roof runoff will be managed through source control, including the use of low-contaminant building materials and minimisation of exposed zinc and copper components.

The capacity of the existing public stormwater network has been assessed for the 10% Annual Exceedance Probability event, including the applicable climate-change allowance and a downstream tailwater level of RL 1.3 m at the Viaduct Basin outlet. The assessment indicates that the existing network becomes surcharged during the 10% AEP event, but the hydraulic grade line remains below ground level. The proposed development generally retains the existing drainage pattern, with only minor changes to the contributing areas discharging to the Gaunt Street, Halsey Street and Pakenham Street West networks. Hydraulic modelling indicates that the proposed changes will not significantly increase hydraulic grade levels or adversely affect the performance of the downstream public network.

The Site is generally above the modelled 1% AEP flood level; however, approximately 450 to 500 m² in the south-western corner is mapped within the low and medium flood hazard area. Overland flow from the larger upstream catchment is expected to remain within the surrounding road corridors and not to enter the Site, while runoff from the developed Site will be directed to the existing street discharge points. The development incorporates measures to manage the identified flood and coastal inundation risks, including appropriate floor levels where practicable, flood-resilient ground-floor materials and detailing, structural resilience, and safe refuge on upper floors. While safe egress may become less reliable under future sea-level-rise scenarios, the development does not rely solely on evacuation and includes an adaptation strategy that allows for future raising of floor levels if required.

# 1 Existing site appraisal

## 1.1 Location and general information

The property at 100 Halsey Street (Section 2 Survey Office Plan 526051 and Lot 2 Deposited Plan 80054), the Site, are located within the Wynyard Precinct, west of the Auckland Central Business District (refer Figure 1.1). The Site occupies a prominent central block within Wynyard Precinct bounded generally by Halsey Street, Gaunt Street, Pakenham Street West and with key frontages to Amey Daldy Park and the Daldy Street Linear Park, as shown in Figure 1.2.



*Figure 1.1: Site location within the within the Wynyard Precinct, Auckland.*

DRAFT

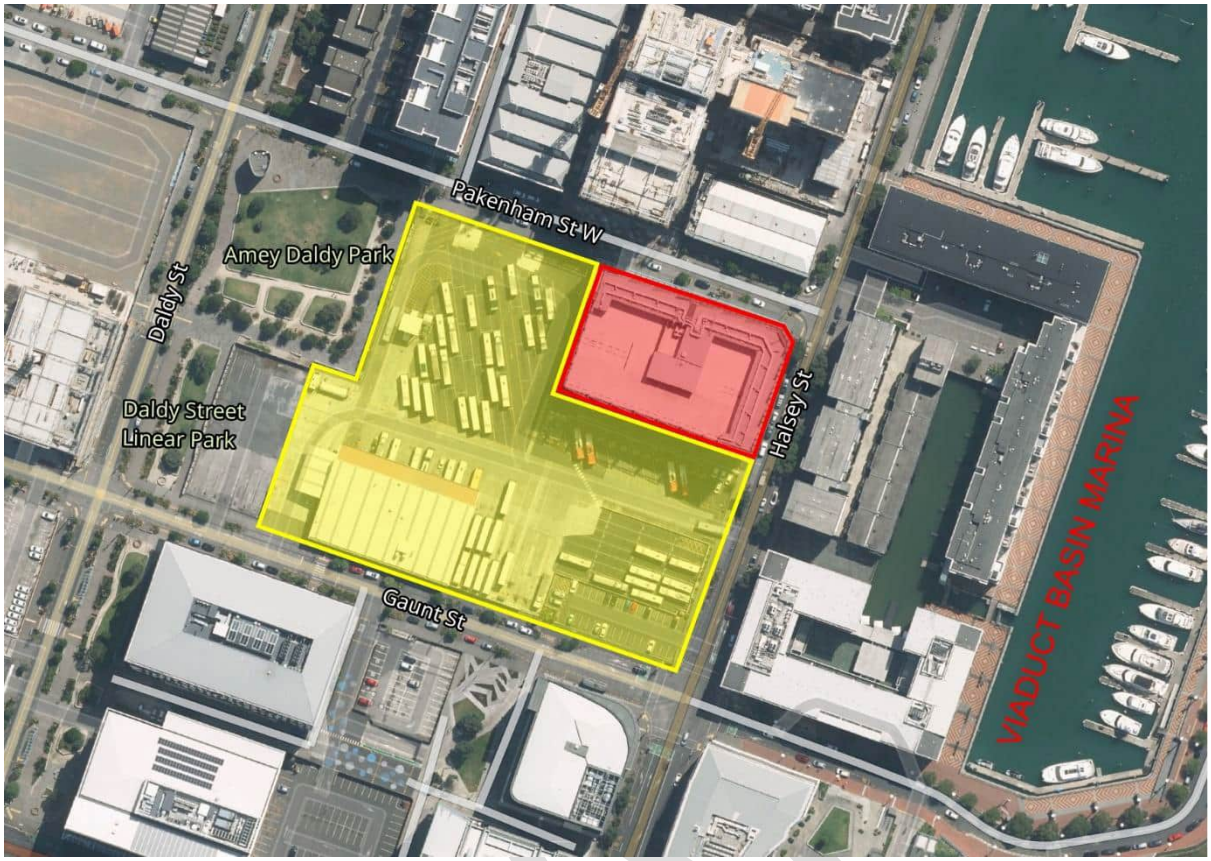



*Figure 1.2: The present-day Site, with the NZ Bus Depot shaded yellow and the Travelodge building shaded red.*

The Wynyard Precinct includes land reclaimed between 1905 and 1917, and subsequently developed for freight, transport and various industrial purposes. Historical activities on the Site and in the wider surrounding precinct included a tram depot with servicing facilities, and bus storage and maintenance facilities, light industry, gasworks-related operations, and bulk fuel storage.[1] These activities have been progressively replaced or supplemented by the commercial, hospitality retail, residential apartment and transport-related activities in the present-day Wynyard Precinct.

The Site is entirely covered by paved and roofed surfaces, with no pervious areas. Approximately 14,142 m² of the Site is occupied by a NZ Bus depot (shaded yellow in Figure 1.2). The depot comprises a workshop, bus parking and manoeuvring areas, a refuelling area, bus-wash facilities, a staff car park and a bulk fuel-storage area.

*In the northeast corner of the Site, the eight-storey Travelodge building (shaded red in Figure 1.2) accommodates a 154-room hotel, the Wynyard carpark (which currently provides 366 car parking spaces), a supermarket, and several cafes and restaurants. This structure will be retained as part of the development and remain operational throughout the duration of construction.*

The surrounding development comprises a mix of mid-rise commercial, hospitality and transport-related activities.

[1] Tonkin & Taylor Ltd, *100 Halsey Street—Preliminary and Detailed Site Investigation*, T+T ref. 1101803, 2026.

## 1.2 Topography

The Site is generally flat and low-lying, with existing ground levels gradually sloping down from RL 3.13 m in the northeastern corner of the Site to RL 2.84 m in the southwestern corner, along Gaunt Street[2].

The wider Wynyard Precinct in the vicinity of the Site is essentially flat towards the Wynyard Basin to the north and Viaduct Basin to the northeast. To the south the topography is similar including Victoria Park, with the terrain rising more steeply beyond that to the south and southeast towards the Hobson Street, Great North Road and Ponsonby Road ridges.

## 1.3 Geotechnical

The Site is underlain by historic reclamation fill to reclaim the Precinct, including marine sediments over deeper Pleistocene sediments and East Coast Bays Formation rock.[3] As described in Section 1.1, the Site and wider precinct have a history of tram depot and servicing activities, industrial and gasworks-related operations, bulk fuel storage, and bus storage and maintenance. The reclamation fill is variable and may include demolition materials, gasworks waste, ash, brick, metal and other industrial waste materials. [1,3]

Groundwater conditions are also variable and may be encountered at shallow depth, particularly following heavy rainfall.[3]

## 1.4 Contaminated land

The preliminary and detailed site investigations confirmed that Hazardous Activities and Industries List (HAIL) activities have occurred at the Site, reflecting its history of reclamation, workshops, fuel storage and transport-depot use. Soil investigations identified elevated concentrations of metals, Polycyclic aromatic hydrocarbons (PAHs) and cyanide, as well as asbestos in parts of the investigated area. Historical groundwater sampling also identified cyanide above the applicable marine-water guideline.[1]

Stormwater runoff from the Halsey Street bus depot has the potential to contain contaminants associated with vehicle movements, parking, refuelling and general vehicle-yard activities. Based on stormwater monitoring undertaken at the Halsey Street depot between August 2017 and November 2019, TSS and dissolved copper are considered the principal contaminants of concern because they were the only monitored parameters to exceed the applicable guideline values.[4] TSS is likely to comprise sediment, road dust, dirt and other particulate matter accumulated on the sealed bus yard and mobilised during rainfall. Dissolved copper is likely to be associated with brake-pad and tyre wear, together with copper-bearing road dust generated by the movement and parking of buses and other vehicles.

Other potential stormwater contaminants associated with the depot activities include particulate and dissolved chromium, lead, nickel and zinc, and petroleum hydrocarbons associated with diesel, lubricants, oils and other vehicle-related residues. These parameters were monitored but did not exceed the adopted guidelines during the August 2017 to November 2019 monitoring period.[4]

[2] All levels in this Stormwater Management Plan are reported in New Zealand Vertical Datum 2016 (NZVD2016) referred to as reduced level (RL), unless otherwise noted.

[3] Tonkin & Taylor Ltd, *100 Halsey Street—Geotechnical Desktop Assessment*, T+T ref. 1101803, 2026.

[4] Tonkin & Taylor Ltd, *Halsey Street Depot – Review of Stormwater Monitoring Programme*, 15 January 2020, Job No. 30277.0260.



DRAFT

The Site includes a refuelling area, bulk diesel storage and vehicle-maintenance areas. These activities represent potential sources of hydrocarbon contamination in stormwater in the event of minor leaks, spills or poor housekeeping.[4]

## 1.5 Existing drainage features and stormwater infrastructure

The existing Site is divided into three drainage sub-catchments, as shown on Figure 1.3:

- The **northern sub-catchment**, which discharges to Pakenham Street West.
- The **eastern sub-catchment**, which discharges to Halsey Street.
- The **southern sub-catchment**, which discharges to Gaunt Street.

The existing drainage features and stormwater infrastructure associated with each sub-catchment are described in the sub-sections below.

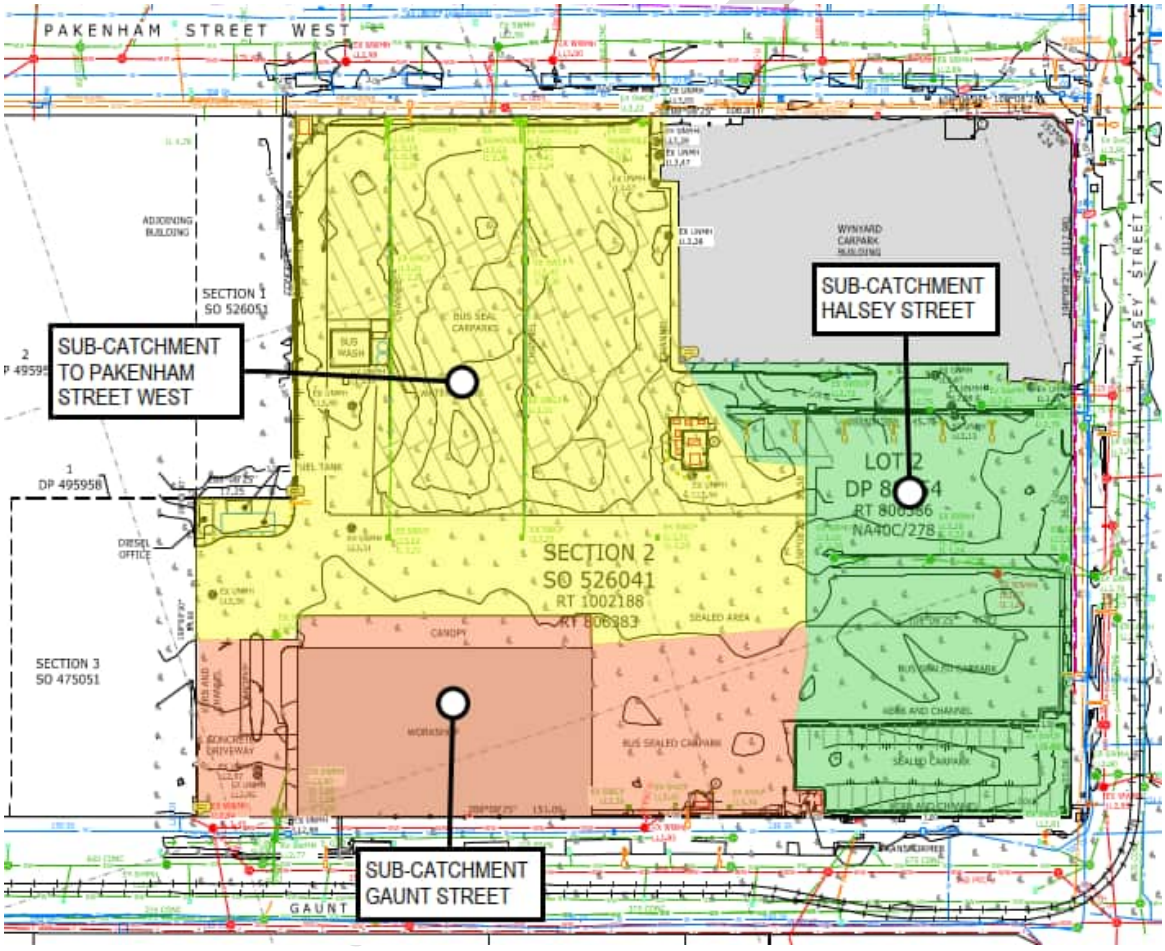



*Figure 1.3: Existing stormwater sub-catchments and private drainage infrastructure. Survey by Harrison Grierson (11.2025).*

### 1.5.1 Northern sub-catchment

The northern sub-catchment, discharging to Pakenham Street West, is the largest of the three sub-catchments - approximately 7,200 m². It predominantly comprises the bus-wash area and bus-yard parking and manoeuvring surfaces in the north-western and central part of the Site.

Stormwater runoff from this sub-catchment is collected by catchpits and kerb inlets and conveyed through three private pipes to Pakenham Street West. The catchpits, with filter inserts, provide an initial degree of stormwater treatment, capturing some sediment and debris.[4]

Additionally, two proprietary treatment devices (Stormwater360 StormFilter™ units) have been installed, one unit each on western private pipe and the central private pipe. These devices treat runoff from contributing catchments of approximately 2,360 m² and 2,430 m².[5]

The eastern private stormwater pipeline does not include a treatment device.

Flows from the three pipelines discharge to private stormwater chambers along the Site boundary. These chambers connect to the 750 mm diameter concrete public stormwater network in Pakenham Street West. The stormwater pipe drains west to Daldy Street. The asset records in GeoMaps, contain some incorrect level information; however, the drainage is anticipated to drain east along Madden Street before ultimately discharging into the Viaduct Basin via a submerged outlet at Ūrunga Plaza.

The bus-wash area along the western boundary is roofed, and wash-water is collected and discharged to the trade-waste network under a Trade Waste Agreement. Thus, wash-water contaminants including detergents, wash solids and vehicle residues are not entrained in the runoff from the Site.

### 1.5.2 Eastern sub-catchment

The eastern sub-catchment, discharging to Halsey Street, includes the bus entrance off Halsey Street. The available drainage information does not clearly confirm whether runoff from the staff car park to the south discharges to the Halsey Street or Gaunt Street public stormwater network. For the purposes of this assessment, runoff from the staff car park has been assumed to discharge to the Halsey Street network, with an estimated total area of 3,900 m$^2$. The private stormwater pipe connects to the 1,050 mm diameter concrete public stormwater network in Halsey Street. The stormwater network drains north and ultimately discharges to the Viaduct Basin in the vicinity of Madden Street.[6]

### 1.5.3 Southern sub-catchment

The southern sub-catchment, discharging to Gaunt Street, is drained by a private stormwater system that collects runoff from the workshop roof and roof extension over the refuelling bay. The covered refuelling area drains to an oil interceptor, which reduces the likelihood of hydrocarbons and other fuel-related contaminants entering the stormwater network. The refuelling-area drainage discharges to Trade Waste.[4,5]

The sub-catchment discharging to Gaunt Street is approximately 3,400 m$^2$. A portion of the Site is assumed to connect to a 225 mm pipe within the footpath which drains west. It connects to the stormwater connection in the driveway which connects to the 675 mm diameter concrete public stormwater network in Gaunt Street. The public stormwater networks in Gaunt Street connected to the Site run eastwards to connect to the 1,050 mm diameter network in Halsey Street.

It is noted that there is also a 1,800 mm concrete pipe within Gaunt Street which drains west and connects to the 2,750 mm pipe in Daldy Street that ultimately discharges to the harbour at the northern end of Brigham Street. The Site does not appear to connect to this pipe.

[5] Tonkin & Taylor Ltd, *Halsey Street Stormwater Treatment – Design Process and Recommendations*, 21 February 2020.
[6] Tonkin & Taylor Ltd, *City Depot ITA AEE*, 12 April 2017.

## 1.6 Existing piped network capacity assessment

The capacity of the existing public stormwater network has been assessed for the 10% Annual Exceedance Probability (AEP) event. Hydrological methodology and inputs have been derived from Technical Publication 108 (TP108, 2026)[7], with 2.1°C climate-change allowance applied in accordance with the Auckland Council Stormwater *Code of Practice*.[8]

The network has been developed in 12D using available information from GeoMaps, supplemented by assumptions regarding the connection points of adjacent buildings and drainage of the road corridor. GeoMaps levels have generally been retained, including where reverse links are present. However, along Madden Street, pipe invert information was either unavailable or was clearly incorrect. In these locations, the invert levels at the manholes have generally been adopted for the analysis. These assumptions should be confirmed through survey or asset-owner information where practicable.

A tailwater level of RL 1.3 m has been applied at the outlet as the downstream boundary condition, representing the mean sea level at the Viaduct Basin. The outlet tailwater creates a backwater effect, raising the hydraulic grade line through the network. For the assessed 10% AEP event, the existing public stormwater network is surcharged, but the hydraulic grade line remains below ground level.

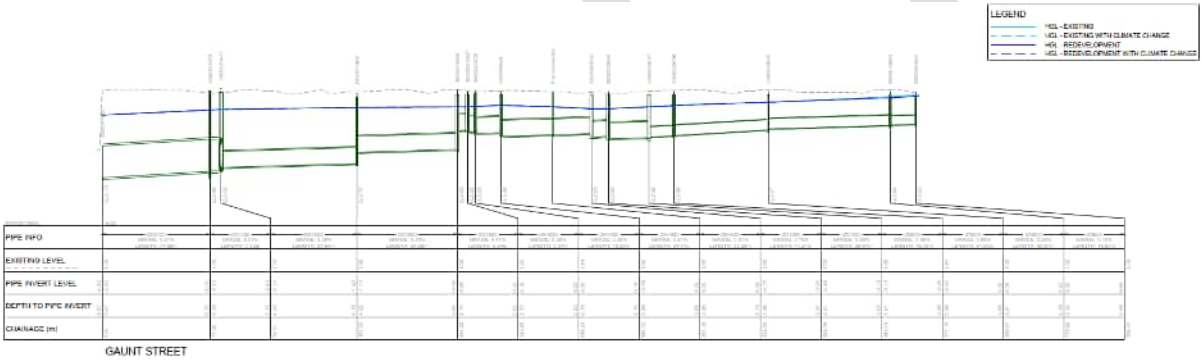



*Figure 1.4: Longsection from the preliminary public stormwater capacity assessment.*

## 1.7 Flooding and flow paths[9]

Auckland Council GeoMaps identifies localised flood hazards in the vicinity of the Site, as shown in Figure 1.5. Future flooding exposure is mapped using the Auckland Council Regionwide Urban Flood model results, which considers the 1% AEP event with allowance for 3.8°C increase in temperature due to climate change.

The mapped flood hazard areas indicate that the Site is generally above the modelled 1% AEP flood level. However, approximately 450 to 500 $m^2$ in the south-western corner of the Site is mapped as being subject to low flood hazard, shown in yellow, and medium flood hazard, shown in orange. Auckland Council defines low flood hazard as relating to floodwater depths of 300 mm or less, or a depth–velocity product of 0.24 $m^2/s$ or less. Medium flood hazard relates to floodwater depths between 300 mm and 500 mm, or a depth–velocity product between 0.24 and 0.4 $m^2/s$.

[7] *Auckland Regional Council, Technical Publication 108: Guidelines for Stormwater Runoff Modelling in the Auckland Region (2026).*

[8] Auckland Council, *The Auckland Code of Practice for Land Development and Subdivision, Chapter 4: Stormwater*, Version 4.0.

[9] Refer also to Tonkin + Taylor, *100 Halsey Street Auckland Central, Coastal and Flood Risk Assessment Report (October 2026).*

Higher flood-hazard classifications are concentrated in the adjoining land to the south-west and south, generally following low-lying drainage and road corridors.

Overland flow paths are mapped along the surrounding street network. The principal flow path is associated with an upstream catchment of approximately 161 hectares. It flows along the lower eastern portion of Gaunt Street, then south-to-north along Halsey Street, before discharging into the Viaduct Basin marina through the Ūrunga Plaza promenade. Additional overland flow paths associated with an approximately 1-hectare catchment are mapped along Pakenham Street West, Daldy Street and Halsey Street.

Flood-prone areas with a spill level of approximately RL 2.85 m surround the Site. These areas represent localised low points where water may pond if drainage capacity is exceeded or an outlet is restricted.

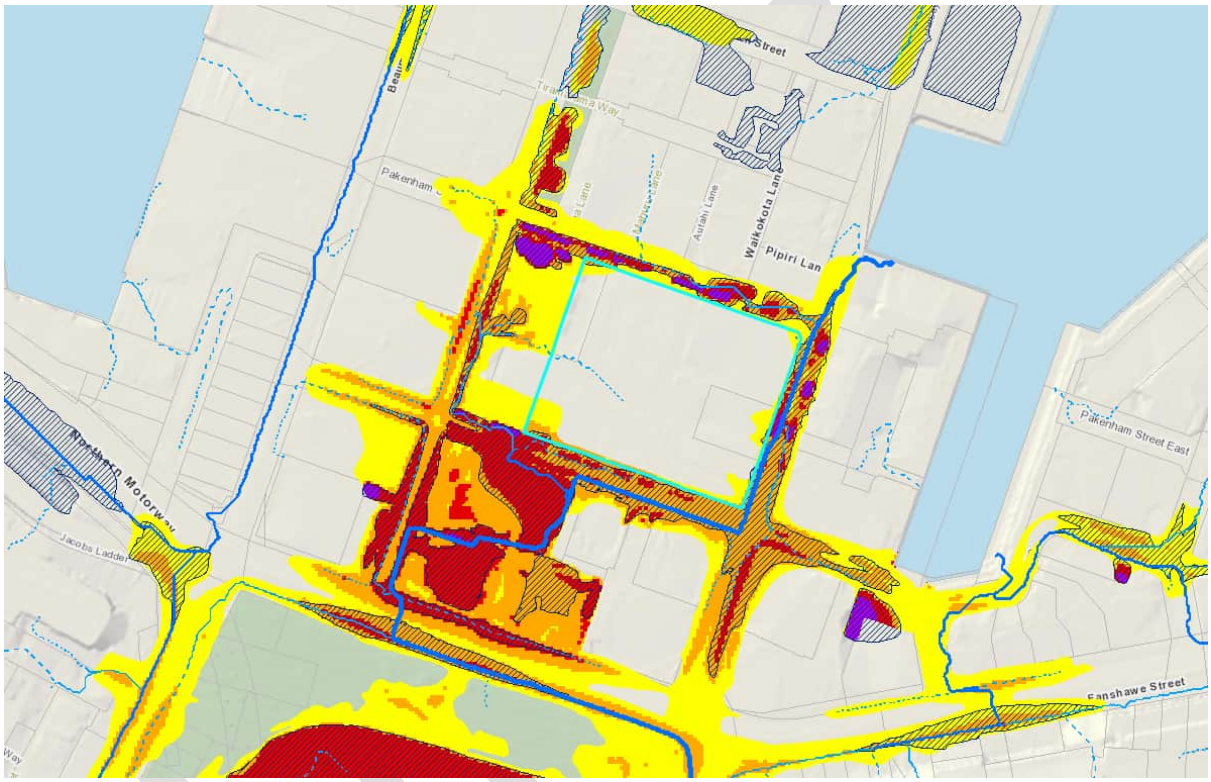



*Figure 1.5: Auckland Council GeoMaps mapped 1% AEP flood hazard areas, flood-prone areas and overland flow paths in the vicinity of the site.*

## 1.8 Coastal inundation [10]

The Auckland Council GeoMaps Coastal Storm Inundation dataset identifies areas potentially affected by coastal storm-tide inundation under a range of present-day and future relative sea-level-rise scenarios.

The Site is outside the mapped present-day 1% AEP coastal inundation extent. However, its exposure increases under the mapped relative sea-level-rise scenarios. As shown in Figure 1.6:

- The mapped 1% AEP coastal inundation extent encroaches marginally across the Site boundary in the 1.0 m relative sea-level-rise scenario.

[10] Refer also to Tonkin + Taylor, *100 Halsey Street Auckland Central, Coastal and Flood Risk Assessment Report (October 2026).*

- In the 1.5 m relative sea-level-rise scenario, coastal inundation is mapped within across almost all the Site, extending across the whole site in the 2.0 m relative sea-level-rise scenario.

Based on the AUP definitions, the Site is within the coastal inundation Area 2, in which *Less sensitive* activities are *Acceptable* and *Sensitive activities* are *Potentially tolerable* within existing urbanised areas.




*Figure 1.6: Auckland Council GeoMaps mapped 1% AEP coastal storm inundation extents under 0.5 m, 1.0 m and 1.5 m relative sea-level-rise scenarios.*

## 1.9 Receiving environment

The Site is located in the lower reaches of the CBD catchment. As above, stormwater from the Site is conveyed to the Viaduct Basin, part of the wider Waitematā Harbour receiving environment. This is a tidal coastal and estuarine system with significant ecological, cultural, recreational and amenity values.

Auckland Council identifies that the Waitematā Harbour is subject to urban pressures, including sediment and contaminant inputs from stormwater. Auckland Council monitoring indicates that water and sediment quality pressures are generally more pronounced in upper estuarine environments, tidal creeks and sheltered sub-estuaries than at more exposed outer-harbour and open-coast locations.[11]

[11] Auckland Council, *Tāmaki Makaurau / Auckland marine sediment contaminant monitoring: state report for 2023*, Auckland Council Technical Report TR2024/8, 2024.

Auckland Council and NIWA monitoring in the Waitematā Harbour has identified relationships between sediment metal concentrations (particularly copper, lead and zinc) and changes in sediment-dwelling benthic communities. The outcomes are reduced abundance, diversity and ecological health at more contaminated sites.[12,13]

These findings support the use of source-control and treatment measures to minimise the discharge of sediment-bound contaminants in stormwater to the receiving environment.

## 1.10 Site appraisal matters of limited relevance

Biodiversity, existing hydrological features, and cultural and heritage considerations are not expected to require further consideration given the highly modified urban nature of the Site.

No natural streams, wetlands or ponds exist on the Site. The Site has been substantially modified through reclamation and successive transport and freight. Based on the current scope of works, no known cultural or heritage features have been identified within the Site.

DRAFT

[12] Parkes, S. and Lundquist, C., *Central Waitematā Harbour ecological monitoring: 2000–2014*, Auckland Council Technical Report TR2015/006, 2015.
[13] NIWA, *Estuarine Ecodiagnostics*.

# 2 Development summary and planning context

In the context of Schedule 4 of the Auckland Council Network Discharge Consent (NDC), the Site is categorised as a large brownfield site, i.e. more than 5,000 $m^2$ of re-developed impervious surface. The regulatory, planning and design requirements that apply to development of such a site and therefore establish the basis for the stormwater management approach, are summarised in Table 2.1 and Table 2.2.

**Table 2.1: Regulatory and design requirements**

| Requirement | Relevant regulatory / design to follow |
|---|---|
| Auckland Unitary Plan | The relevant Auckland Unitary Plan provisions include:<br>• Chapter E1 Water quality and integrated management.<br>• Chapter E8 Stormwater – discharge and diversion.<br>• Chapter E9 High contaminant-generating car parks and high-use roads. *<br>• Chapter E10 Stormwater Management Area – Flow 1 and Flow 2. *<br>• Chapter E36 Natural hazards and flooding.<br>• I214 Wynyard Precinct.*<br>*Refer Notes. |
| Catchment Management Plan | No existing catchment management plan has been identified as applying to the development area. |
| Auckland Council Regionwide Network Discharge Consent | The development is subject to the applicable brownfields large development requirements in Schedule 4 of the NDC. The site-specific requirements and proposed means of addressing them are summarised in Table 2.2. |

Notes:

- The E9 provisions relating to high contaminant-generating car parks and high-use roads are not applicable to the proposed development.
- The E10 provisions relating to Stormwater Management Area – Flow 1 and Flow 2 are not applicable because the Site is not located within the relevant SMAF overlay.
- Chapter I214 has been reviewed for provisions relevant to the proposed development. The Precinct provisions do not contain specific stormwater management requirements for this Site.

**Table 2.2: Requirements of NDC Schedule 4 for large brownfields sites**

| Issue | Receiving environment | Requirement |
|---|---|---|
| Water quality | Degraded or sensitive aquatic environment: Coastal Degraded 1 | • *"Treatment of all impervious areas by a water quality device designed in accordance with GD01 for the relevant contaminants.*<br>*OR*<br>*An alternative level of mitigation determined through a SMP that:*<br>– *applies an Integrated Stormwater Management Approach[1];*<br>– *meets the NDC Objectives and Outcomes in Schedule 2; and*<br>– *is the BPO"*<br>• *"Gross pollutant traps for runoff from:*<br>– *Commercial/industrial waste storage/handling or loading/unloading areas treatment* |

DRAFT

| Issue | Receiving environment | Requirement |
|---|---|---|
| | | – *Communal waste storage areas in apartments and multi-unit developments*". |
| Stream hydrology | The Site is not located within a Stormwater Management Area – Flow 1 or Flow 2 overlay and does not discharge to a stream via the public stormwater network. | No specific stream hydrology mitigation requirement under this provision. |
| Flooding | Property / pipe capacity: 10% AEP event | • "*Ensure that there is sufficient capacity within the pipe network downstream of the connection point to cater for the additional stormwater runoff associated with the development in a 10% AEP event; OR*<br>• *Demonstrate that flows in excess of the pipe capacity in a 10% AEP event within the pipe network downstream of the connection point will not increase flooding of any other property*". |
| | Buildings – 1% AEP event | • "*Manage/mitigate 1% AEP peak flow to that immediately preceding development/redevelopment*". |

[1] "*Integrated Stormwater Management Approach in accordance with the policies in the AUP7 Sections E1.3, B7 and B8 to:*

- *Minimise the stormwater related effects of development.*
- *Retain/restore natural hydrology as far as practicable.*
- *Minimise the generation and discharge of contaminants (including gross stormwater pollutants stormwater flows at source.*
- *Minimise temperature related effects.*
- *Enhance freshwater systems including streams and riparian margins.*
- *Minimise the location of engineered structures in streams.*
- *Protect the values of Significant Ecological Areas as identified in the Auckland Unitary Plan."*

DRAFT

# 3 Mana whenua: Te ao Māori and mātauranga

## 3.1 Identification and incorporation of mana whenua values

The project team met with representatives of Ngāti Whātua Ōrākei Trust on 1 September 2026 to introduce the proposed development and discuss opportunities for ongoing involvement through consenting, detailed design and delivery.

Ngāti Whātua Ōrākei emphasised the importance of kaitiakitanga and the need for the development to protect and improve the environment, rather than focusing only on visual outcomes. In relation to stormwater, Ngāti Whātua Ōrākei identified opportunities to collaborate on water retention, treatment and stormwater design, native planting, and the expression of cultural narratives associated with water and the future Te Ara Tukutuku connection[14].

The Project stormwater approach will therefore need to seek to recognise water as an important environmental and cultural resource. The design will be developed to support water quality, ecological health and positive outcomes for downstream receiving environments. This includes consideration of treatment of runoff, integrated landscape design and the use of appropriate native planting.

These matters are consistent with the Ngāti Whātua Ōrākei Iwi Management Plan[15], which identifies the need to improve water quality in Tāmaki Makaurau and supports the use of sustainable or low-impact urban design techniques for surface water management.

For this development, these aspirations will be considered through:

- Providing effective treatment of stormwater runoff before discharge.
- Integrating stormwater infrastructure with landscape, biodiversity and public-realm design.
- Considering opportunities for water to be visible and expressed within the plaza and pedestrian connections.
- Selecting appropriate native planting in consultation with Ngāti Whātua Ōrākei.
- Ensuring stormwater assets are maintainable and continue to perform over the life of the development.

Engagement will continue during detailed design, with sufficient flexibility retained to incorporate agreed cultural, landscape and stormwater outcomes as the design develops. Any specific cultural narratives, planting advice or mātauranga Māori to be included in the final design will be confirmed with Ngāti Whātua Ōrākei.

[14] The Te Ara Tukutuku connection is a major 10-hectare waterfront regeneration project proposed at the northern end of Wynyard Point.

[15] ngatiwhatuaorakei.com.

# 4 Other stakeholder engagement and consultation

**Table 4.1: Other stakeholder engagement**

| Stakeholder | What is the reason for engagement | What engagement has been completed | Feedback and response |
|---|---|---|---|
| Auckland Council – Healthy Waters, Growth and Development \| Te Tupuranga me ngā Whanaketanga | Stormwater servicing, discharge requirements, network capacity and asset ownership. | Early project discussions on 17 August 2026. | Detailed flood modelling was not considered necessary in principle, subject to qualitative assessment of floodplain filling, overland flow paths and relevant rainfall and coastal inundation scenarios.<br>The SMP is to demonstrate no worsening of existing stormwater quality and is to provide treatment for impervious areas in accordance with GD01/TP10, or an agreed alternative best practicable option.<br>Continued discharge to the existing network is acceptable in principle, provided the existing catchment arrangement is maintained. |
| Auckland Council – Planning, Landscape and Parks representatives | Coordination of stormwater, landscape, public realm and adjoining open-space interfaces. | Planner-led pre-application meeting on 7 September 2026. | Coordination of the stormwater, landscape and public realm response was encouraged. Private ownership and future maintenance responsibilities are to be clearly documented. |
| Ngāti Whātua Ōrākei Trust | Cultural values and design input relevant to the Site and historical stream narratives. | Refer to Section 3. | Refer to Section 3. |
| Auckland Transport | Any works affecting the road corridor or transport network. | None. Required for proposed works around existing road-side rain gardens and if new connections in road. | |

DRAFT

# 5 Proposed development

The project site located at 100 Halsey Street occupies a prominent central block within the Wynyard Quarter precinct, with key frontages to Amey Daldy Park and the Daldy Street Linear Park. Over the past decade, the surrounding area has undergone a significant transformation, with high-quality developments establishing elevated expectations and performance benchmarks across the precinct.

The proposed development seeks to deliver a high-quality mixed-use commercial precinct of five buildings comprising premium office accommodation, retail and food and beverage uses, integrated amenities and end-of-trip facilities, together with the supporting infrastructure, building services and car parking required to service the development.

Building 2 is proposed as a purpose-built data centre. The building will accommodate the specialist plant, infrastructure and servicing requirements associated with the data centre use, while also incorporating centralised infrastructure to support the wider development.

The existing Travelodge building in the northeast corner of the Site is to be retained and remain operational throughout the duration of construction.

## 5.1 General development information

The masterplan comprises five buildings arranged around a central mid-block plaza, bounded by Gaunt Street, Halsey Street, Pakenham Street and Daldy Street / Amey Daldy Park. Refer to Figure 5.1 for the schematic development plan:

- Building 1 - Commercial Office Building corner Halsey Street and Gaunt Street.
- Building 2 - Data Centre, between B1 and existing Travelodge.
- Buildings 3A / 3B - Commercial Office buildings fronting Amey Daldy Park and Pakenham Street West.
- Building 4 - Commercial Office on Gaunt Street.

Building 5 - Commercial Office on Gaunt Street between Building 4 and Viaduct Harbour Holdings Limited (VHHL) site.

DRAFT




*Figure 5.1: Proposed development (sourced from the Substantive Application dated 02 October 2026).*

The proposed redevelopment will reduce the impervious cover of the existing Site from 100% to 96%, incorporating approximately 600 m² of planted landscaped space.

The redevelopment will generally retain the existing drainage patterns, with runoff from Buildings B3A and B3B and the northern portion of the Site discharged to Pakenham Street West, Buildings B1 and B2 and the eastern portion of the Site to Halsey Street, and Buildings B4 and B5 and the southern portion of the Site to Gaunt Street.

## 5.2 Earthworks

Earthworks required include removal of the surface material to a depth of 500 mm (including existing pavements), basement excavation, piles, foundations, service trenches and amenity landscaping. The total earthworks volume will be approximately 58,770 $m^3$, with most of this excavated from the proposed basements. Most of the material is expected to be cut-to-waste with minimal filling intended with the existing in-situ material.




*Figure 5.2: Proposed ground plane (sourced from the Substantive Application dated 02 October 2026).*

The surrounding street levels will remain unchanged. The internal laneway network will transition between the proposed RL 3.35 m precinct platform and the existing street levels, with detailed grading being coordinated to maintain appropriate pedestrian and vehicle access, accessible routes and site surface drainage.

DRAFT

# 6 Stormwater management

## 6.1 Principles of stormwater management

The stormwater management approach has been developed in the context of the existing developed nature of the Site, the known constraints associated with underlying contamination and groundwater, and the planned landscape outcomes. The approach is based on an integrated stormwater management strategy that seeks to:

- Avoid worsening existing stormwater quality outcomes and, where practicable, improve them.
- Ensure that the public infrastructure has capacity to convey runoff from the development.
- Manage flood risk.
- Provide stormwater assets that are integrated with the landscape design, to be functional and to be maintainable and capable of performing over the life of the development.

## 6.2 Proposed stormwater management

### 6.2.1 General

The proposed development reduces contaminant generation within the Site. The water quality strategy is outlined in Section 6.2.2 and is based on:

1 **Treat runoff from ground-level impervious areas** predominantly through bioretention devices designed and constructed in accordance with GD01, before discharge to the public stormwater network. Proprietary treatment devices to be used where conveyance from trafficked surfaces to a bioretention device is impractical.

2 **Minimise contaminant generation from roofs at source** through appropriate material selection, protective finishes, and ongoing inspection and maintenance.

3 **Maintain the existing drainage patterns** to Pakenham Street West, Halsey Street and Gaunt Street where practicable.

4 **Manage flood exposure and future residual risk** through appropriate finished floor levels, flood-resilient ground-floor design and detailing, the flood-resilient placement of critical services, safe access and refuge within the buildings, and the ability to adapt relevant ground-floor areas in the future if required.

5 **Infiltration will not be relied upon** because of the underlying contaminated soils and the potential for interaction with groundwater.

### 6.2.2 Water quality

The existing Site is fully developed and comprises entirely impervious surfaces. Based on the information available, not all surfaces drain to a stormwater treatment system with runoff from the existing bus and car parking areas connected to the public network without treatment. The existing Site therefore is a source of urban stormwater contaminants, including sediment, gross pollutants, metals, hydrocarbons and other traffic-derived contaminants.

The proposed redevelopment will remove the existing high-contaminant-generating surfaces, including the bus and car-parking areas. These will be replaced with the following impervious surfaces (and the associated contaminant profiles):

DRAFT

- **Pedestrian paths and public-realm pavements:**

  These surfaces generally have a relatively low contaminant-generating potential given no vehicular traffic, but may generate sediment, litter and other contaminants associated with pedestrian and public open space activity.

- **Pavements providing service and site access:**

  Service-access lanes will have fewer vehicle movements than a public road or large car park, and than the existing bus depot. However, they will remain trafficked surfaces and may generate some sediment, metals, hydrocarbons and other typical road-derived contaminants.

- **Building roofs:**

  Roof runoff generally contains lower sediment concentrations than urban ground surface runoff.[16] It may also contain (dissolved) metals[17], depending on the roofing, flashing, guttering and associated drainage materials used.

The proposed redevelopment also includes two basement car-park access ramps, one from Pakenham Street West and the other from Gaunt Street. These ramps will be covered, and any stormwater flowing into the carpark will be collected and conveyed to the wastewater network.

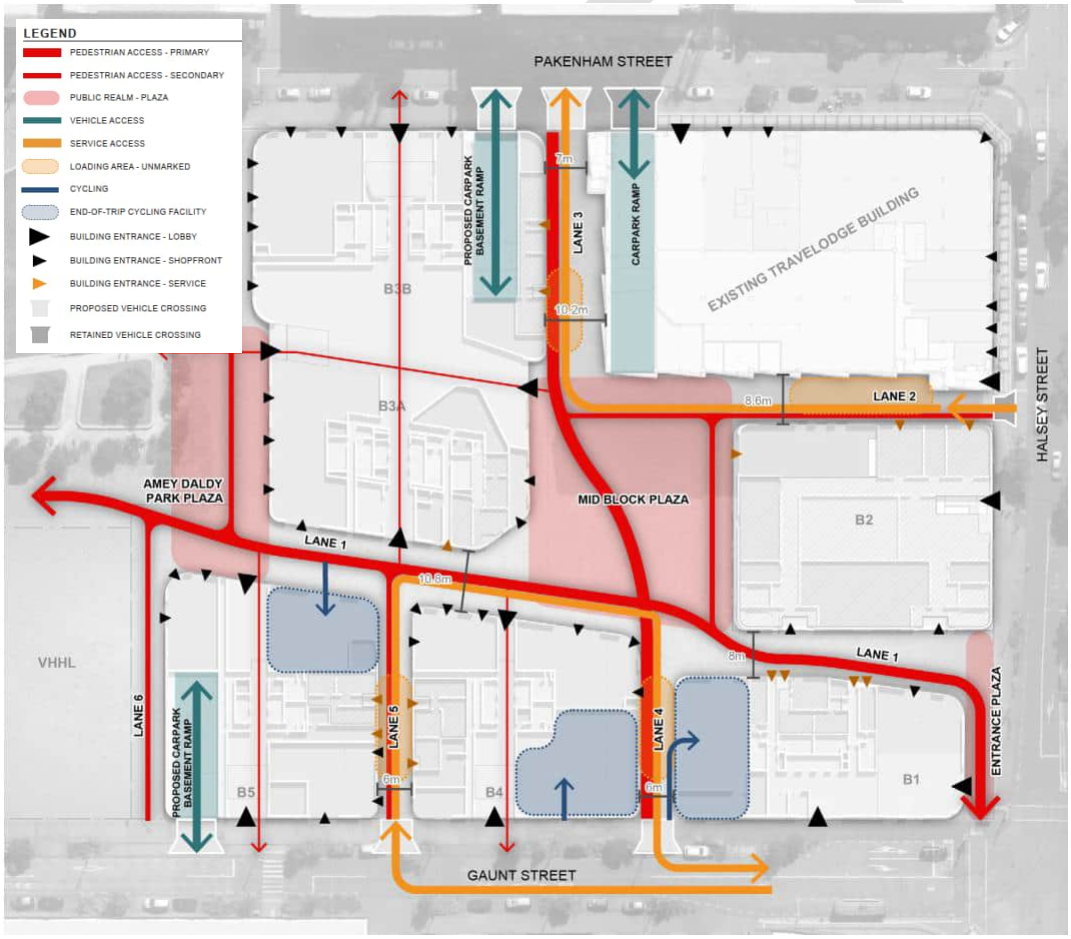



*Figure 6.1: Site level access strategy (prepared by Boffa Miskell 30 September 2026).*

[16] Frances J. Charters, *Roof runoff quality: a review of data, contaminant generation processes and influencing factors, Part A: Sediment, heavy metals and nutrients* (University of Canterbury, Department of Civil and Natural Resources Engineering, Hydrological and Ecological Engineering Research Group, final report, September 2025).

[17] Auckland Council, *Auckland Unitary Plan Stormwater Management Provisions: Technical Basis of Contaminant and Volume Management Requirements* (Auckland: Auckland Council, 2013).

### 6.2.2.1 Treat runoff from ground-level impervious areas

Runoff from impervious ground surfaces will generally be directed to bioretention devices, designed in accordance with GD01[18] such as rain gardens, stormwater tree pits or planter boxes. These devices will be integrated into the landscape and public-realm design, rather than designed as separate engineering infrastructure. Potential treatment locations are identified in Figure 6.2.

Bioretention devices are preferred for most ground-level catchments because they provide treatment of sediment, particulate-bound contaminants and a proportion of dissolved contaminants, while also contributing to landscape amenity. Their integration into the landscape design supports mana whenua expectations for more visible, naturalised and multifunctional stormwater outcomes.

The underlying contamination of the Site is a fundamental design consideration for bioretention devices. These shall be designed as lined systems that do not infiltrate to ground. Lining is required to prevent uncontrolled interaction between stormwater, contaminated soils and groundwater.

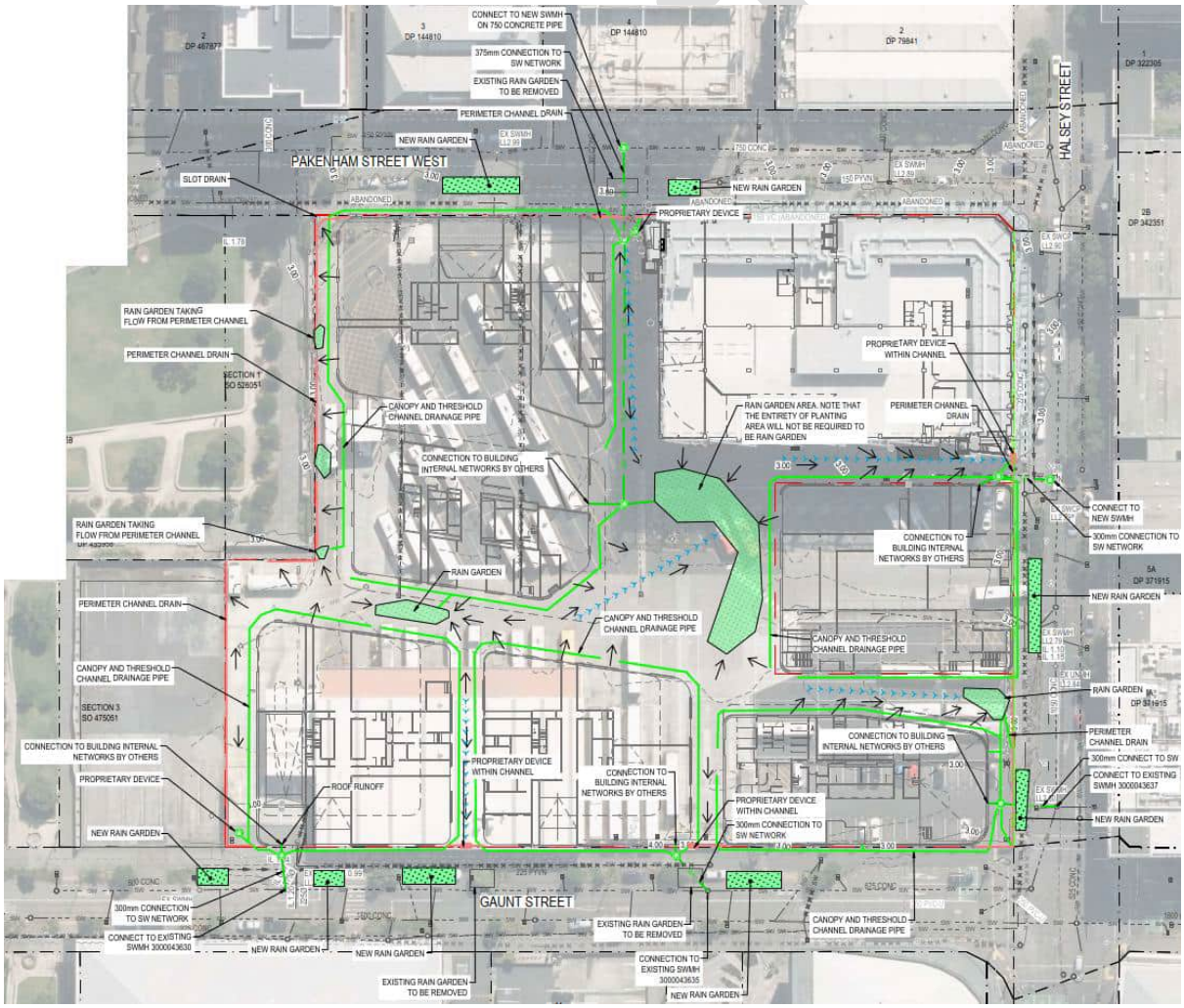



*Figure 6.2: Potential stormwater treatment locations.*

[18] Amelia Cunningham et al., *Stormwater Management Devices in the Auckland Region*, Auckland Council Guideline Document GD2017/001 (Auckland: Auckland Council, 2017).

Proprietary treatment devices may be used where it is not practicable to convey runoff from trafficked surfaces to a bioretention device. Such areas include laneways that fall towards the surrounding roads (including Lanes 4, 5 and 6), and to surface catchments where there is insufficient area or hydraulic grade for a rain garden.

Gross-pollutant controls, catchpit inserts, channel-drain treatment or other localised measures will also be used to protect downstream treatment devices, and to reduce the discharge of litter and sediment to the stormwater network and the receiving marine environment.

#### 6.2.2.2 Source control and contaminant minimisation for roof runoff

As noted above, roof runoff has a different contaminant profile from runoff generated on roads, car parks and other ground-level surfaces. In particular, roof runoff may contain dissolved metals, depending on the materials used for the roofs, flashing, guttering and associated drainage components.

TP10 identifies that infiltration-based devices have potential to reduce dissolved contaminants[19.] However, infiltration is not considered appropriate at the Site due to the underlying contaminated soils and the potential for infiltration to adversely interact with groundwater.

Dissolved metal concentrations may remain elevated in runoff after the initial portion of a rainfall event, meaning that first-flush diversion to re-use may not adequately address the contaminant load. [16]

Source control is therefore considered the most practicable means of minimising contaminant generation from the proposed roofs to the receiving environment. The detailed building design should incorporate:

- Roofing, flashing, guttering and drainage materials with low contaminant-release potential.
- Avoidance or minimisation of exposed zinc and copper components.
- Durable protective roofing surface finishes.

The roofs and associated drainage systems will be regularly inspected and maintained, including the timely repair or replacement of degraded components, coatings and protective finishes.

### 6.2.3 Stream hydrology

Table 2.2 establishes that no specific stream-hydrology mitigation requirement applies to the Site.

Furthermore, the proposed stormwater management approach seeks to avoid unnecessary disturbance of contaminated ground and avoid uncontrolled infiltration or soakage. Infiltration could mobilise contaminants or interact with groundwater.

### 6.2.4 Network capacity

The development is required to ensure that the downstream public stormwater network has sufficient capacity to accommodate runoff from the redevelopment in the 10% AEP event. Where the available capacity of the downstream network is exceeded, the development must demonstrate that the exceedance will not increase flooding of other property.

[19] Auckland Regional Council, *Stormwater Management Devices: Design Guidelines Manual*, 2nd ed., Technical Publication No. 10 (Auckland: Auckland Regional Council, May 2003).

The proposed development will generally retain the existing drainage pattern:

- Runoff from Buildings B3A and B3B and the northern portion of the Site discharged to the public network in Pakenham Street West.
- Runoff from Buildings B1 and B2 and the eastern portion of the Site discharge to the public network in Halsey Street
- Runoff from Buildings B4 and B5 and the southern portion of the Site discharged to the public network in Gaunt Street.

The changes to the Site drainage sub-catchments are minor and are summarised in Table 6.1**.** The proposed arrangement results in a small increase in the contributing area to the Gaunt Street and Halsey Street networks and a small decrease in the contributing area to the Pakenham Street West network. Overall, the total contributing area is broadly unchanged. This should be confirmed at future design stages.

**Table 6.1: Existing and proposed drainage sub-catchments**

| Drainage network | Sub-catchment (ha) | | |
|---|---|---|---|
| | Existing | Developed | Change |
| **Gaunt Street** | 0.3434 | 0.3620 | +0.0186 |
| **Halsey Street** | | | |
| Southern corner | 0.1530 | 0.1817 | +0.0287 |
| Site Connection | 0.2230 | 0.1955 | -0.0275 |
| **Pakenham Street West** | 0.6928 | 0.6816 | -0.0112 |

The effect of these changes has been assessed by hydraulic modelling of the stormwater network. As mentioned in Section 1.6, the downstream tailwater condition is a controlling factor in the hydraulic performance of the existing network. The assessment considers the post-development runoff, climate-change allowance, and the downstream tailwater condition at the outlet in the Viaduct Basin. The modelling results (included in Appendix C indicate that the proposed redirection of flows from the Site to different discharge points will not significantly increase hydraulic grade levels within the downstream public network.

### 6.2.5 Overland flow path and floodplain management

The natural hazard assessments[20] have not identified any new natural hazards arising from the proposed development, or any increase in natural hazard risk to neighbouring properties, infrastructure or the environment because of the development.

As identified above, the existing mapped 1% AEP floodplain extends into the south-western corner of the Site. The development has been designed to manage the exposure to this flood hazard through the proposed floor levels, the use of flood-resilient materials and detailing at ground-floor level, and the provision of safe refuge within the buildings.

The Project coastal and flood risk assessment[20] states that the development is expected to remain resilient for at least the next 80 to 100 years based on the median projections of the climate scenarios considered. Beyond 100 years, and under more extreme future conditions, coastal inundation may become a greater hazard for ground-floor areas below approximately RL3.4 m.

[20] Tonkin + Taylor Ltd (2026), *100 Halsey Street, Auckland Central: Coastal and Flood Risk Assessment*, prepared for NZ CRE 100 Halsey Limited, Job No. 1101937.1000 v2, October 2026.

Thus, the lowest floor levels at Buildings 3A and 3B and the ground-floor areas facing Gaunt Street and Halsey Street, have limited freeboard. The risk to these areas is therefore addressed through the proposed adaptation strategy, including the ability to raise floor levels in the future if required.

Overland flow from the large upstream catchment will continue to be conveyed along the surrounding road corridors and is not expected to enter the Site. Surface runoff from the developed Site will be conveyed towards and discharged along the laneways into the streets.

Safe egress is available through the existing road network depending on the depth, velocity and extent of floodwaters during the event. However, as sea levels rise, safe egress routes may not be available. The development therefore does not rely solely on future safe egress and incorporates a safe-refuge strategy with upper floors above the expected flood levels and the buildings designed to remain structurally stable during flood and coastal inundation events.

### 6.2.6 Development and stormwater network staging

Site development will be constructed in stages, with Buildings 1 and 2 prioritised, followed by Buildings 3A and 3B and then Buildings 4 and 5. NZ Bus will progressively vacate the Site in line with the construction staging, consolidating its operations into a smaller portion of the Site as each stage proceeds.

Stormwater infrastructure will be implemented progressively with each stage of the development. This will include establishing the necessary internal stormwater network, connecting each completed stage to the public stormwater network, and establishing and commissioning the bioretention or proprietary treatment devices before that stage becomes operational.

The Indicative staging and timing are set out in Figure 6.3 to Figure 6.6 below:

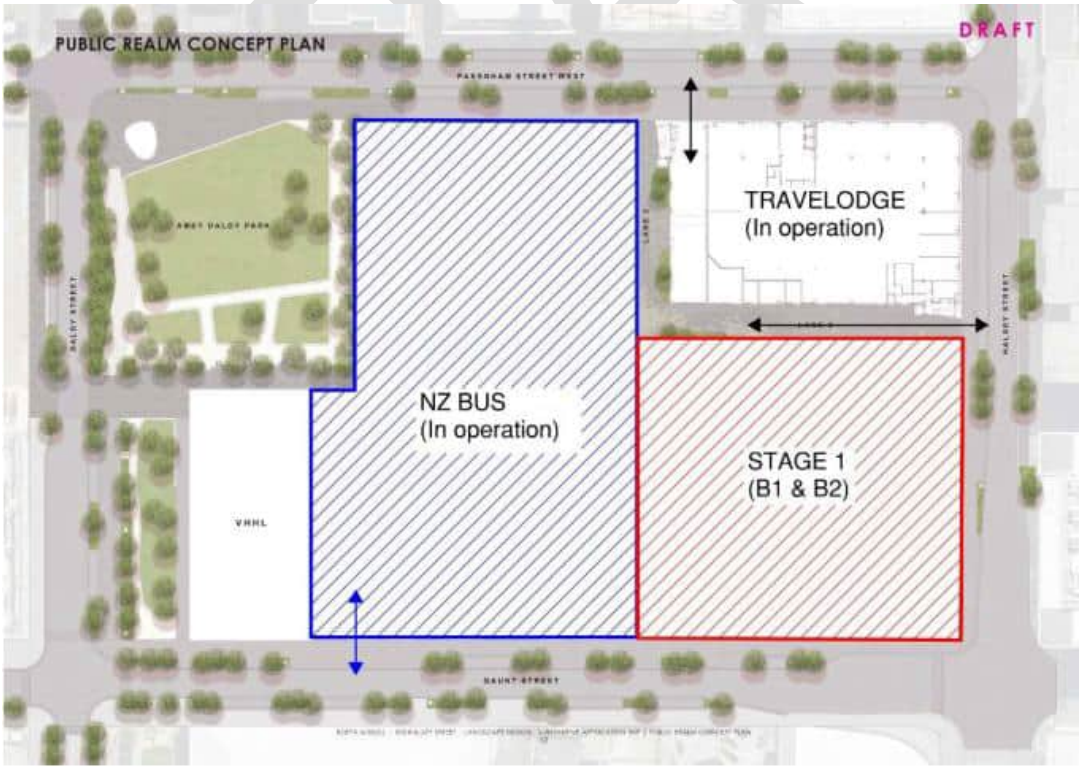



*Figure 6.3: STAGE 1 - Buildings 1 and 2. Construction to commence in early 2028, with an approximate two-year construction timeframe.*

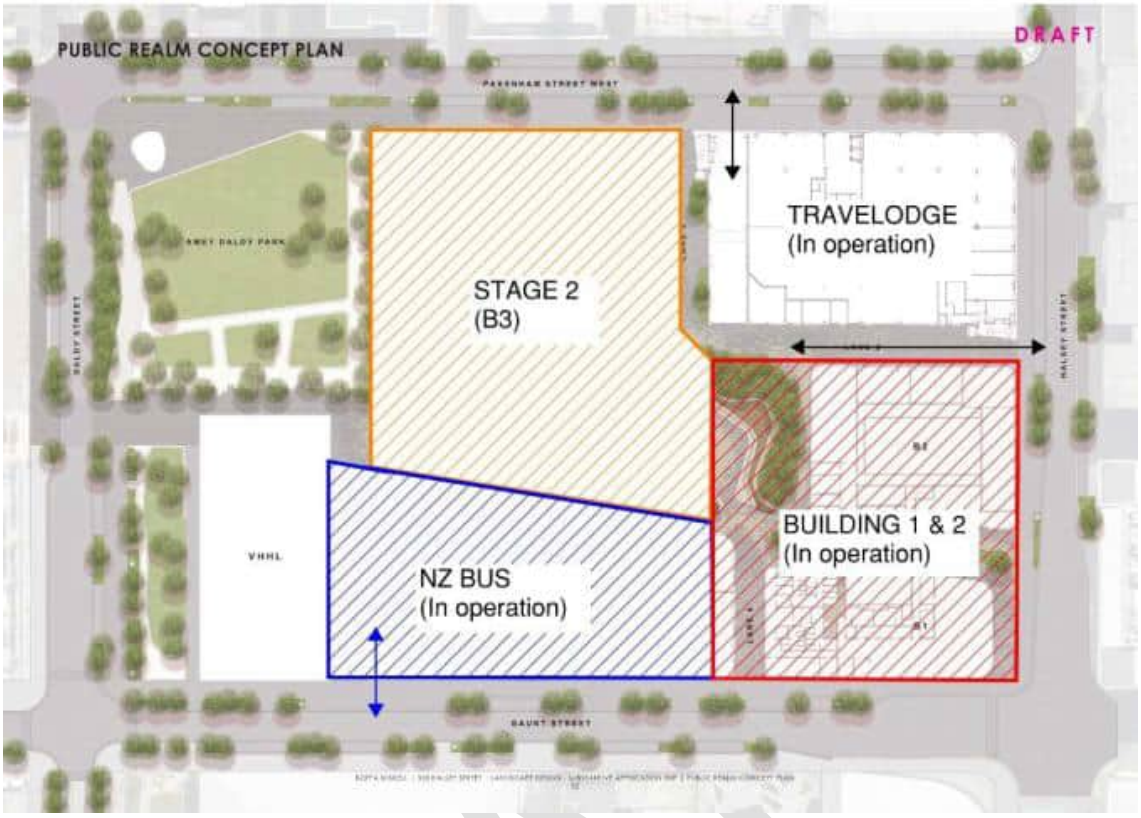



*Figure 6.4: STAGE 2 - Buildings 1 and 2 complete and operational. Buildings 3A and 3B under construction.*




*Figure 6.5: STAGE 3 - Buildings 1, 2, 3A and 3B complete and operational. Buildings 4 and 5 under construction.*




*Figure 6.6: STAGE 4 - Full precinct operational indicatively by 2037.*

The development is not dependent on any planned or committed Auckland Council stormwater infrastructure projects, or on any non-standard operation and maintenance activities beyond the Site boundary, to achieve the intended outcomes of the stormwater management approach described in this SMP.

## 6.3 Asset ownership and ongoing maintenance requirements

All stormwater infrastructure within the Site will remain under private ownership and management. The property owner, body corporate, owners' association or other nominated private management entity will be responsible for the inspection, operation, maintenance, repair, renewal and replacement of roof drainage systems, stormwater collection, conveyance, treatment and discharge assets within the development.

## 6.4 Risks

Based on the current information, the residual risks for stormwater management (summarised in Table 6.2) are associated with confirmation of the existing private drainage network and with the design of the proposed private drainage infrastructure.

These risks can be managed and appropriately mitigated through future design and approval stages of development.

**Table 6.2: Stormwater management risk register**

| What is the risk to the proposed stormwater management? | How can this be mitigated / managed? | What other management / mitigation could be used? | When does this risk need to be addressed? | What is the residual level of risk? |
|---|---|---|---|---|
| Existing private stormwater drainage, connection points or sub-catchment boundaries are different from those shown on available records. | Complete a survey and, where necessary, CCTV investigation of the existing private drainage network, including confirmation of pipe locations, levels, condition, catchment areas and discharge points. Confirm the proposed connection arrangements during detailed design. | Retain existing connections only where their condition and capacity are confirmed. Provide new or upgraded connections where required. | Before resource consent application. The final network capacity assessment should be based on the updated drainage arrangement. | Medium |
| The proposed discharge pattern or flow contributions to Pakenham Street West, Halsey Street and Gaunt Street stormwater networks differ from the assumptions used in the network capacity assessment. | Confirm the final stormwater catchments, connection points and peak flows for each network connection. Update the network capacity assessment using the final architectural, civil and landscape design. | Re-balance catchments, provide local flow controls, or upgrade connections where required. | Before resource consent application. | Medium |

DRAFT

# 7 Departures from regulatory or design codes

At the current stage of design, there are no departures anticipated from regulatory or design standards.

DRAFT

# 8 Conclusions and recommendations for future work

## 8.1 Conclusions

The proposed development involves the redevelopment of a predominantly impervious brownfield site currently occupied by a bus depot, workshop and parking. These activities will be replaced with a high-density commercial development comprising five buildings, with commercial uses at ground level and offices on upper floors. The existing Travelodge building is expected to remain unaltered.

The proposed stormwater management approach represents the Best Practicable Option as it responds to the existing developed nature of the Site, the limited opportunity for infiltration, the known contaminated-land constraints, the existing public stormwater network and the intended landscape and urban-design outcomes.

The principles of the SMP are to:

- Avoid worsening existing stormwater quality outcomes and, where practicable, improve them.
- Ensure that the public infrastructure has capacity to convey runoff from the development.
- Manage flood risk.
- Provide stormwater assets that are integrated with the landscape design.

To achieve these outcomes, the proposed stormwater management approach is to:

- Treat runoff from ground-level impervious areas, as far as practicable, through lined GD01 bioretention devices integrated with the landscape and public-realm design. Proprietary treatment devices will be used where site levels, space constraints or drainage geometry make bioretention treatment of trafficked surfaces impracticable.
- Manage roof contaminant generation through use of low-contaminant-release materials, protective finishes, appropriate detailing and ongoing maintenance.
- Not rely on infiltration and uncontrolled soakage because of the underlying contaminated soils and the potential for interaction with groundwater.
- Maintain the existing drainage patterns to Pakenham Street West, Halsey Street and Gaunt Street where practicable.
- Manage flood exposure and future residual risk by setting appropriate finished floor levels in design, flood-resilient ground-floor design and detailing, flood-resilient placement of critical services, safe access and refuge within the buildings, and the ability to adapt relevant ground-floor areas in the future if required.
- Retain all on-site stormwater assets in private ownership, with an appropriate operation and maintenance regime for the life of the development.

## 8.2 Recommendations

Recommendations for further investigation to support of the next phases of development are listed below:

- Survey investigations to confirm the locations and levels of the existing connection points into the public stormwater network and the existing sub-catchment extents within the site.
- Confirm design of the proposed discharge to the public stormwater network is distributed around the site as in the existing scenario.

DRAFT

# 9 Applicability

This report has been prepared for the exclusive use of our client NZ CRE 100 Halsey Limited, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

We understand and agree that our client will submit this report as part of an application to discharge stormwater under the Auckland region-wide network discharge consent and that Auckland Council as the consenting authority will use this report for the purpose of assessing that application. We also understand that our client will submit this report as part of a substantive application for 100 Halsey Street project under the Fast-track Approvals Act 2024.

Tonkin & Taylor Ltd
Environmental and Engineering Consultants

| Report prepared by: | Authorised for Tonkin & Taylor Ltd by: |
|---|---|
| ..... | ..... |
| Charlotte Arcus | Andrew Hope |
| Senior Stormwater Engineer | Project Director |

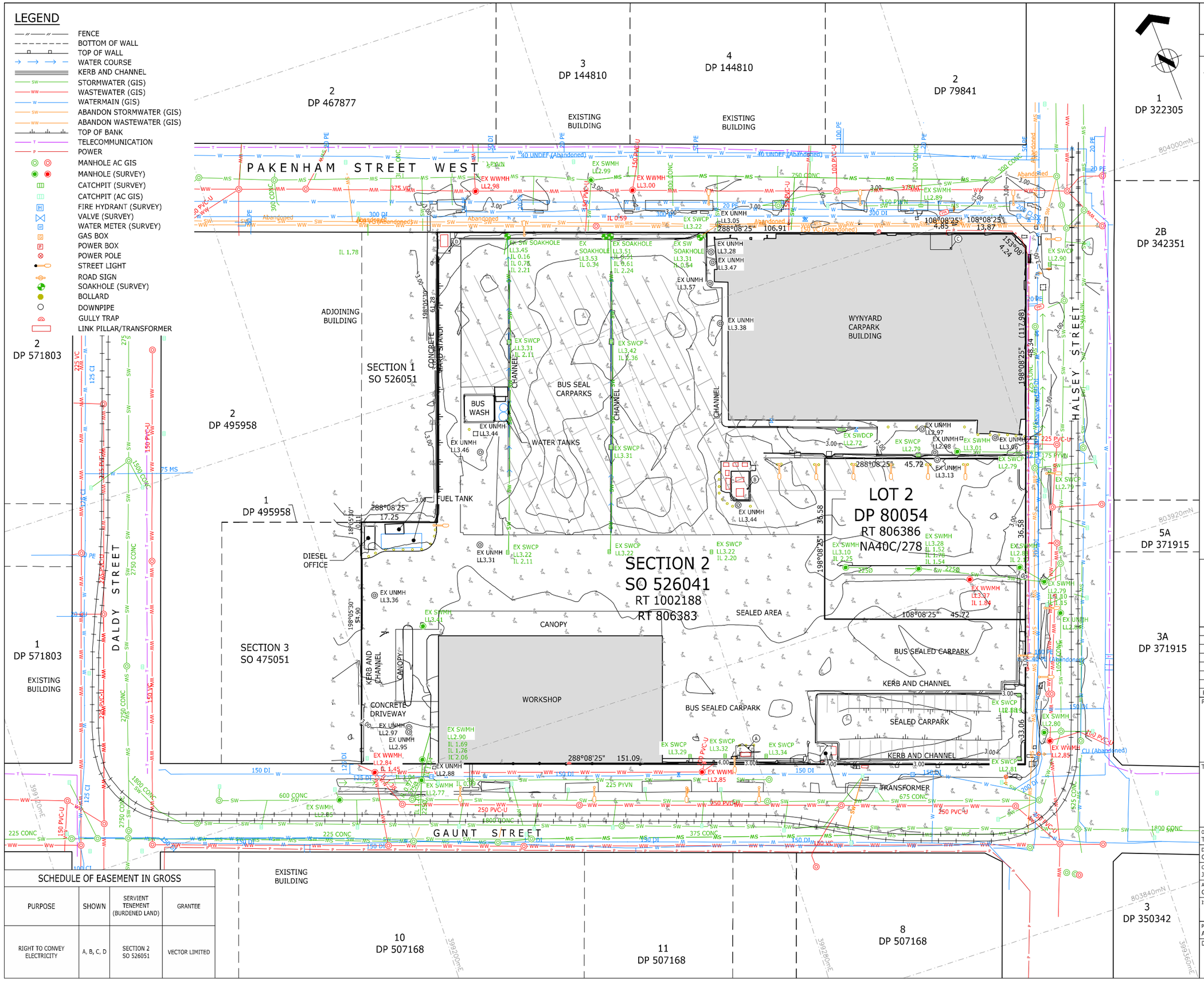
CHAR

t:\auckland\projects\1101937\1101937.1000\issueddocuments\1101937.1000-rpt-sw-101.docx

DRAFT

# Appendix A Plans of existing site features

DRAFT




## SCHEDULE OF EASEMENT IN GROSS

| PURPOSE | SHOWN | SERVIENT TENEMENT (BURDENED LAND) | GRANTEE |
|---|---|---|---|
| RIGHT TO CONVEY ELECTRICITY | A, B, C, D | SECTION 2 SO 526051 | VECTOR LIMITED |

ASSOCIATION OF CONSULTING ENGINEERS NEW ZEALAND

ISO 9001 QUALITY ASSURED

THIS DRAWING AND DESIGN REMAINS THE PROPERTY OF, AND MAY NOT BE REPRODUCED OR ALTERED, WITHOUT THE WRITTEN PERMISSION OF HARRISON GRIERSON CONSULTANTS LIMITED. NO LIABILITY SHALL BE ACCEPTED FOR UNAUTHORISED USE OF THIS DRAWING.

## NOTES:

1. LEVELS ARE IN TERMS OF **NEW ZEALAND VERTICAL DATUM 2016**
   ORIGIN OF LEVELS
   AUCKLAND TIDE GAUGE (AUKT)
   RL 5.55 (1V)
2. COORDINATES ARE IN TERMS NZ GEODETIC DATUM 2000
   MOUNT EDEN CIRCUIT
   ORIGIN OF COORDINATES
   AUCKLAND TIDE GAUGE (AUKT)
   400557.69 mE
   803990.68 mN
3. CONTOURS ARE AT 0.2m INTERVALS. CONTOURS SHOWN ON THIS PLAN HAVE BEEN ELECTRONICALLY COMPUTED FROM SPOT HEIGHT DETERMINATIONS AND MAY NOT REPRESENT THE TRUE GROUND LEVELS. ANY CRITICAL HEIGHTS SHOULD BE CHECKED ON SITE PRIOR TO DESIGN AND CONSTRUCTION COMMENCING.
4. THIS PLAN HAS BEEN CARRIED OUT TO TOPOGRAPHICAL STANDARDS. ALL LEVELS SHOWN ARE CORRECT AT TIME OF SURVEY. CRITICAL DIMENSIONS AND LEVELS SHOULD BE VERIFIED.
5. BOUNDARIES SHOWN ON THIS PLAN ARE FROM LAND INFORMATION NZ DCDB AND HAVE NOT BEEN SURVEYED. A BOUNDARY DEFINITION SURVEY SHOULD BE CARRIED OUT TO ESTABLISH EXACT BOUNDARY POSITIONS ON SITE.
6. ALL EASEMENTS, COVENANTS AND OTHER LEGAL INSTRUMENTS ASSOCIATED WITH THIS SITE MAY NOT BE SHOWN ON THIS PLAN. AN INVESTIGATION OF THE MOST CURRENT LEGAL RECORDS SHOULD BE UNDERTAKEN PRIOR TO DESIGN AND CONSTRUCTION COMMENCING.
7. SERVICES POSITIONS AND ALIGNMENT MAY HAVE BEEN OBTAINED FROM THIRD PARTY RECORDS AND SHOULD BE VERIFIED ON SITE PRIOR TO CONSTRUCTION COMMENCING. HARRISON GRIERSON DOES NOT IN ANY WAY GUARANTEE THE ACCURACY OF ANY UNDERGROUND SERVICE SHOWN ON THIS PLAN.
8. THIS PLAN MAY NOT PROVIDE ENOUGH INFORMATION FOR HEIGHT TO BOUNDARY CALCULATIONS. WHERE ANY PROPOSED BUILDING OR PART THEREOF IS REQUIRED TO MEET COUNCIL'S HEIGHT IN RELATION TO BOUNDARY CONTROLS, HARRISON GRIERSON SHOULD BE CONSULTED.
9. THESE NOTES ARE AN INTEGRAL PART OF THIS PLAN.
10. THIS PLAN IS ISSUED FOR A SPECIFIC PROJECT AND MAY NOT BE ALTERED OR USED FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF HARRISON GRIERSON.
11. LEGAL DESCRIPTION
    LOTS 1 AND 2 DP 80054
    COMPRISED IN RT NA36D/335 AND NA40C/278
    TOTAL AREA 1.828ha

HARRISON GRIERSON
AUCKLAND OFFICE
Level 4, 96 St. Georges Bay Road
Parnell, Auckland 1052
T +64 9 917 5000
W www.harrisongrierson.com

| REF | REVISIONS | BY | DATE |
|---|---|---|---|
| A | FOR INFORMATION | GWP | 26.11.25 |

PROJECT:

NZCRE 100 HALSEY LIMITED
100 HALSEY STREET
AUCKLAND CITY

TITLE:

# SITE SURVEY

| ORIGINATOR: | DATE: | SIGNED: | PLOT BY: |
|---|---|---|---|
| TNS | 11.2025 | | CEA |
| DRAWN: | DATE: | SIGNED: | PLOT DATE: |
| CEA | 11.2025 | | 27.11.25 |
| CHECKED: | DATE: | SIGNED: | SURVEY BY: |
| JHL | 26.11.25 | | TNS |
| APPROVED: | DATE: | SIGNED: | SURVEY DATE: |
| GWP | 26.11.25 | | 11.2025 |

ISSUE STATUS: FOR INFORMATION

PROJECT No: A2516239.00
SCALES: 1:400-A1, 1:800-A3
A1

DRAWING No: A2516239-HG-XX-DR-XX-G-SS01
REV A

# Appendix B Proposed development plans

DRAFT

# 100 halsey st.

## Substantive Application

22.10.2026

peddlethorp

RP Financial

neoscape

B&A

Urban & Environmental

McIndoe Urban

BOFFA MISKELL

**Prepared for**
RP Financial (NZ CRE 100 Halsey Limited)

**Document Revision**
Substantive Application
Rev.A
22.10.2026

**Document Control**
Prepared By
Georgia Ganley, Emanuele Lisci, Cameron Pattullo, Manuel Diaz

**Reviewed By**
Manuel Diaz

**Approved By**
Manuel Diaz

**Primary Contact**
Manuel Diaz
Peddle Thorp
Level 2
Northern Steamship Building
122 Quay Street
Auckland, 1010
New Zealand
+64 9 379 9405
manueld@peddlethorp.co.nz

peddlethorp



# Contents


**1.0 Research**

| | | |
|---|---|---|
| 1.1 | Wynyard Quarter | 6 |
| 1.2 | Planning Context | 7 |
| 1.3 | Neighbourhood | 9 |
| 1.4 | A Key Site | 11 |
| 1.5 | Urban Framework | 12 |
| 1.5 | Waterbound Origins | 13 |
| 1.6 | Freshwater | 14 |
| 1.7 | Seawater | 15 |

**2.0 Design Exploration**

| | | |
|---|---|---|
| 2.1 | Existing Site | 17 |
| 2.2 | Proposed Site Plan | 18 |
| 2.3 | Proposed Basement B2 | 20 |
| 2.4 | Proposed Basement B1 | 21 |
| 2.5 | Proposed Ground Plane | 22 |
| 2.6 | Proposed Massing | 24 |
| 2.7 | Sustainability | 25 |

**3.0 Facade Development**

| | | |
|---|---|---|
| 3.1 | Water Inspired Design | 27 |
| 3.2 | Street Elevations | 32 |

**4.0 Design Concept**

| | | |
|---|---|---|
| 4.1 | Building 1 Concept | 35 |
| 4.2 | Building 2 Concept | 47 |
| 4.3 | Building 3 Concept | 58 |
| 4.4 | Building 4 Concept | 82 |
| 4.5 | Building 5 Concept | 94 |
| 4.6 | Interiors | 106 |

**5.0 Appendices**

| | | |
|---|---|---|
| 5.1 | Building 1 to Building 5 Drawings | |

# Project Overview

The project site occupies a central block within the Wynyard Quarter precinct, fronting Amey Daldy Park and the Daldy Street Linear Park delivered by Eke Panuku in 2021. Resource Consent was granted in 2017 under the original masterplan, with the Travelodge building (completed 2020) currently the only realised component on site.

Over the past decade, the surrounding context has evolved significantly, with substantial new development elevating expectations and performance benchmarks across the precinct.

This proposal builds on the original masterplan vision, responding to the Auckland City Centre Master Plan (2020), the Te Ara Tukutuku Plan (2021), and the completed and emerging development within Wynyard Quarter.

The brief centres on delivering high-quality commercial office space, supported by end-of-trip facilities, integrated amenities, and essential infrastructure and servicing.

PROGRAMME

Fast Track Referral lodged.

The project team is currently developing the Substantive Application for lodgement on the 22nd October.

peddlethorp



1

research

# nga rangahau

peddlethorp

# Wynyard Quarter

Wynyard Quarter is one of Auckland's significant ongoing urban regeneration projects. The area was historically a working industrial and maritime precinct, established on land progressively reclaimed from the Waitematā Harbour, with the final component of the Western Reclamation completed in 1930.

The Waterfront Plan (2012) established a strategic framework for the continued transformation of Wynyard Quarter, supporting a mix of public spaces, mixed-use development and improved connections between the city, waterfront and surrounding neighbourhoods.

Today, Wynyard Quarter is a vibrant waterfront neighbourhood shaped by its industrial and maritime heritage and an evolving vision for a connected, people-focused urban environment.

peddlethorp



# Planning Context

The Wynyard Precinct Urban Design Framework has undergone several iterations, initially developed by Sea+City Projects and subsequently updated by Waterfront Auckland. The Wynyard Precinct: Urban Design Framework (UDF) 2014 builds on the original framework, reflecting the status of development within the precinct and establishing guidance for its ongoing development.

The UDF 2014 provides a robust and flexible framework to guide the precinct's development over time. As described below:

• Establishes a vision for the future of Wynyard Precinct.

• Defines urban design principles against which development proposals will be assessed.

• Provides an indicative urban design framework for development in Wynyard Precinct.

peddlethorp

Fig.1 Precinct urban design concept diagrams (Auckland UDF 2014)




Fig.2 Precinct connections (Auckland UDF 2014)

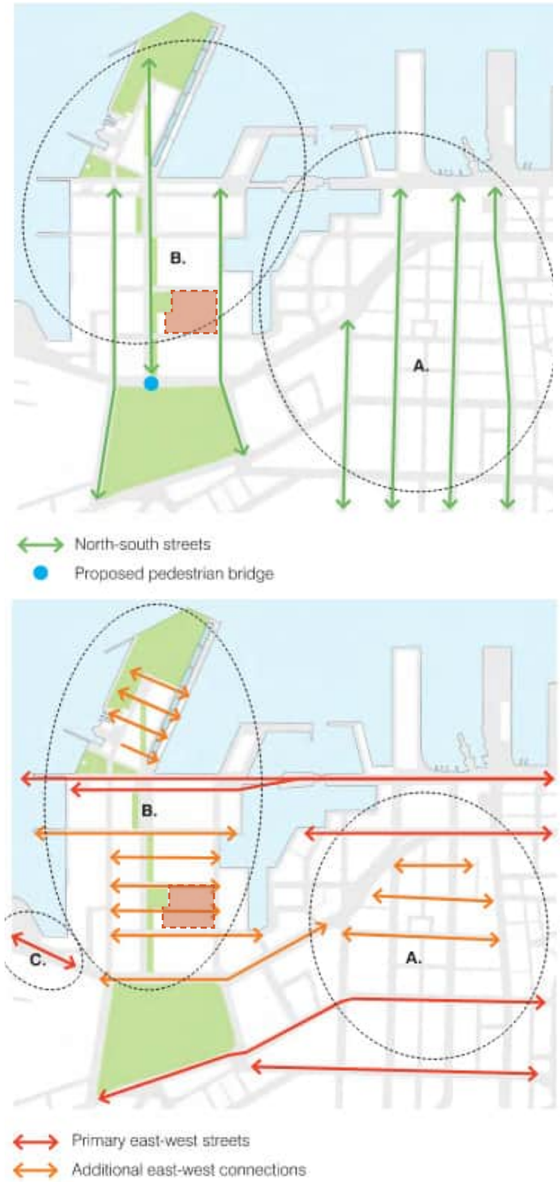



Fig.3 CBD public space connections (Auckland UDF 2014)



# Planning Context

The Auckland City Centre Masterplan (2020) established a broader strategic direction for the city centre and waterfront through eight Transformational Moves. At Wynyard Quarter, Māori Outcomes, The Green Link (Fig. 1) and Harbour Edge Stitch (Fig. 2) are particularly relevant, providing a framework for strengthening connections between the city, waterfront and surrounding open spaces, while recognising the role of mana whenua and Māori identity within the urban environment.

1. Viaduct Basin
2. Victoria Park
3. Westhaven
4. St Marys Bay
5. Britomart
6. Skytower
7. Auckland Domain
8. Mechanics Bay
9. Spark Arena
10. Ports of Auckland
11. Aotea Square
12. Albert Park
13. Parnell
14. Freemans Bay
15. Ponsonby
16. Te Ara Tukutuku
17. North Wharf
18. Wynyard Crossing
19. Amey Daldy Park
20. Silo Park

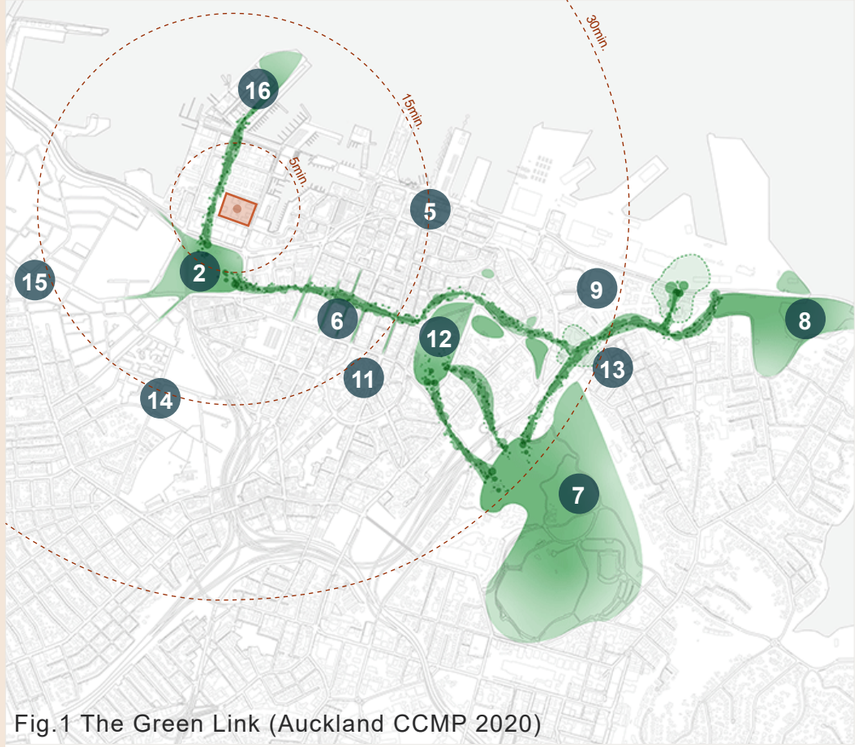



Fig.1 The Green Link (Auckland CCMP 2020)

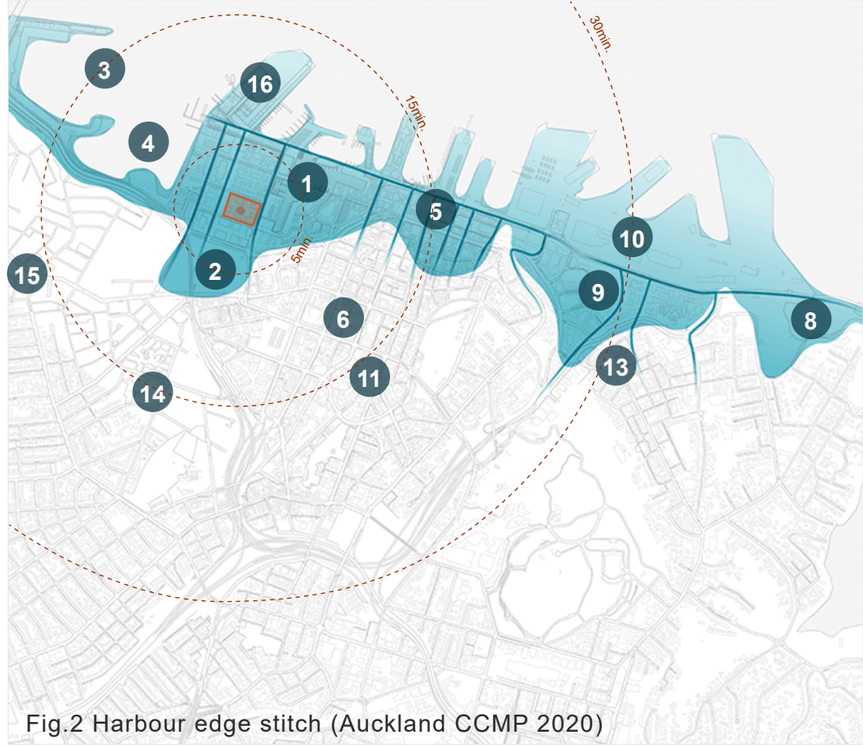
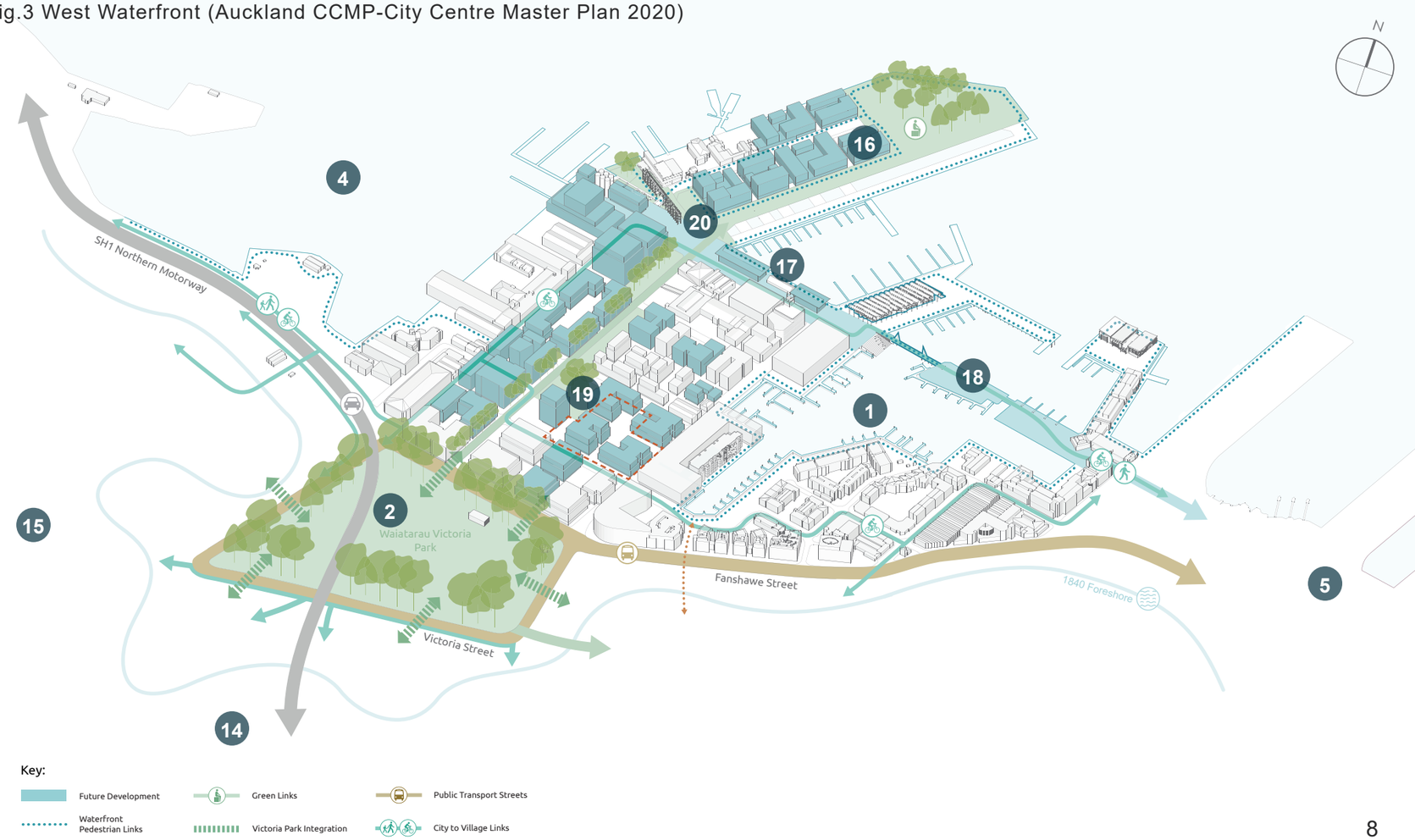



Fig.2 Harbour edge stitch (Auckland CCMP 2020)

Fig.3 West Waterfront (Auckland CCMP-City Centre Master Plan 2020)




peddlethorp

# Neighbourhood

**A centre for innovation**

Wynyard has become one of Auckland's most sought-after precincts, attracting banking, technology and consulting firms through its reputation for sustainability, innovation and vibrant public spacesqualities the traditional CBD struggles to match. Major occupiers including Air New Zealand, ASB, Beca, Fonterra, Google, Microsoft and Trade Me have reinforced Wynyard's position as a destination for progressive workplace culture, talent attraction and retention.

1 100 Halsey St
2 Amey Daldy Park
3 Viaduct Basin
4 Victoria Park
5 Silo Park
6 North Wharf
7 Wynyard Crossing
8 Karanga Plaza

9 Travelodge
10 Park Hyatt
11 Sofitel
12 Lighter Quay
13 2 Daldy St
14 30 Madden St

15 Woolworths Metro
16 Auckland Fish Market
17 Harbour Grounds

Bus Stops

18 Mason Bros
19 Lysaght Building
20 Beca
21 ASB
22 Microsoft
23 AA Head Office
24 Auckland Transport
25 Bayleys
26 Fonterra
27 Datacom
28 Genesis
29 Kiwibank
30 Air New Zealand
31 One NZ
32 55 Gaunt St
33 190 Pakenham St W
34 117 Pakenham St W
35 188 Beaumont St
36 28 Madden St

37 ASB Waterfront Theatre
38 Viaduct Events Centre

peddlethorp





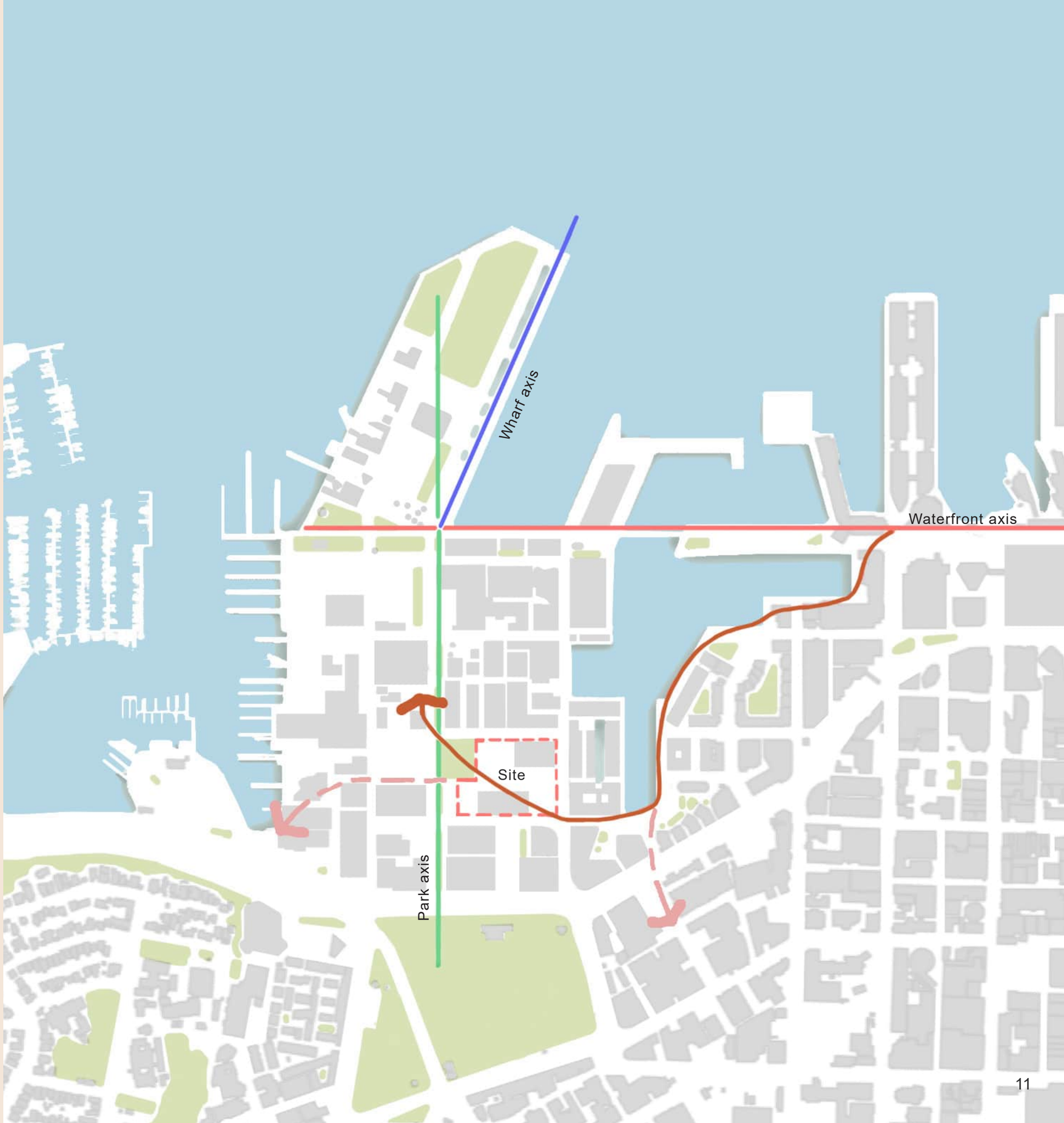
# A Key Site

Site Area : 17,142 m² inclusive of Travelodge.

Staged delivery:
bus operations and workshop will reduce over time as the buildings are developed.

The site is identified as a prime pedestrian entry point into Wynyard Quarter.

A north-western aspect towards Amey Daldy Park, with a strong connection to the Daldy Street Linear Park.



# Urban Framework



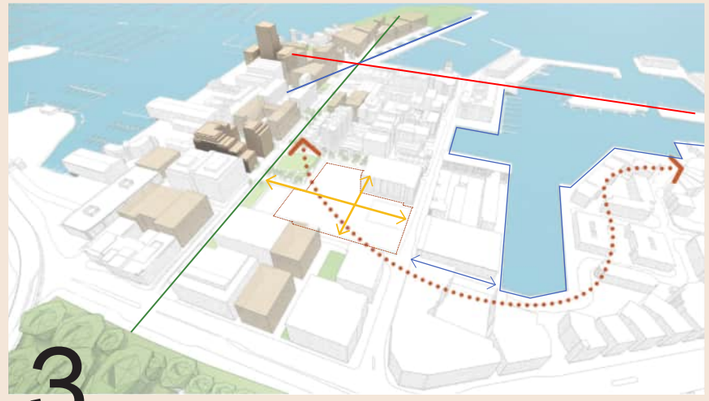
## 1 100 Halsey Street.

100 Halsey Street will emerge as a high-quality, commercially successful office destination in Auckland's Wynyard Quarter, responding to the precinct's vibrant, people-focused and lively mixed-use waterfront environment.



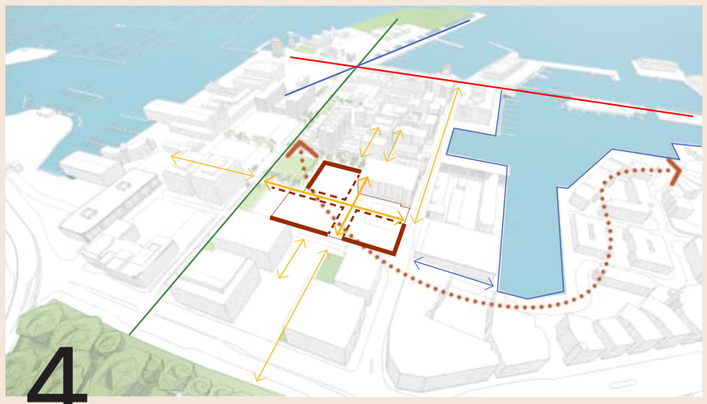
## 2 Axes.

Key moves identified in the Wynyard Quarter Urban Design Framework (2014) establish a clear axial concept, which is acknowledged.



## 3 Future Precinct.

Wynyard Quarter will continue to evolve as a vibrant, mixed-use neighbourhood that prioritises people, connectivity, and a strong relationship with the western waterfront and the Waitematā Harbour.



## 4 Activation and Thresholds.

Establish activation zones along primary routes to create desirable, active frontages that encourage site occupation and contribute to the liveability of Wynyard Quarter.



## 5 Connectivity.

Establish a network of laneways traversing the site, strengthening pedestrian connectivity between the Viaduct Harbour, Amey Daldy Park, Victoria Park, and the Daldy Street linear park.



## 6 Primary Connections.

The site offers the potential for a key diagonal east - west pedestrian link, enhancing site occupation and integration with the surrounding neighbourhoods.

# Waterbound Origins

The site is located on land reclaimed from the Waitematā seabed approximately 100 years ago. Before then, the area of Wynyard Quarter used to be a mahinga kai (food-gathering place), and many pa (fortified villages) were built on the headlands with easy access down to the water.

The new Green Link along Daldy Street follows the paleochannel carved by the rivers once flowing into Waiatarau (Freemans Bay): the Waikuta and Tunamau.

Despite the recently established land ecosystem, the Wynyard precinct remains deeply influenced by the sea and immersed in a marine environment.

Fig.1

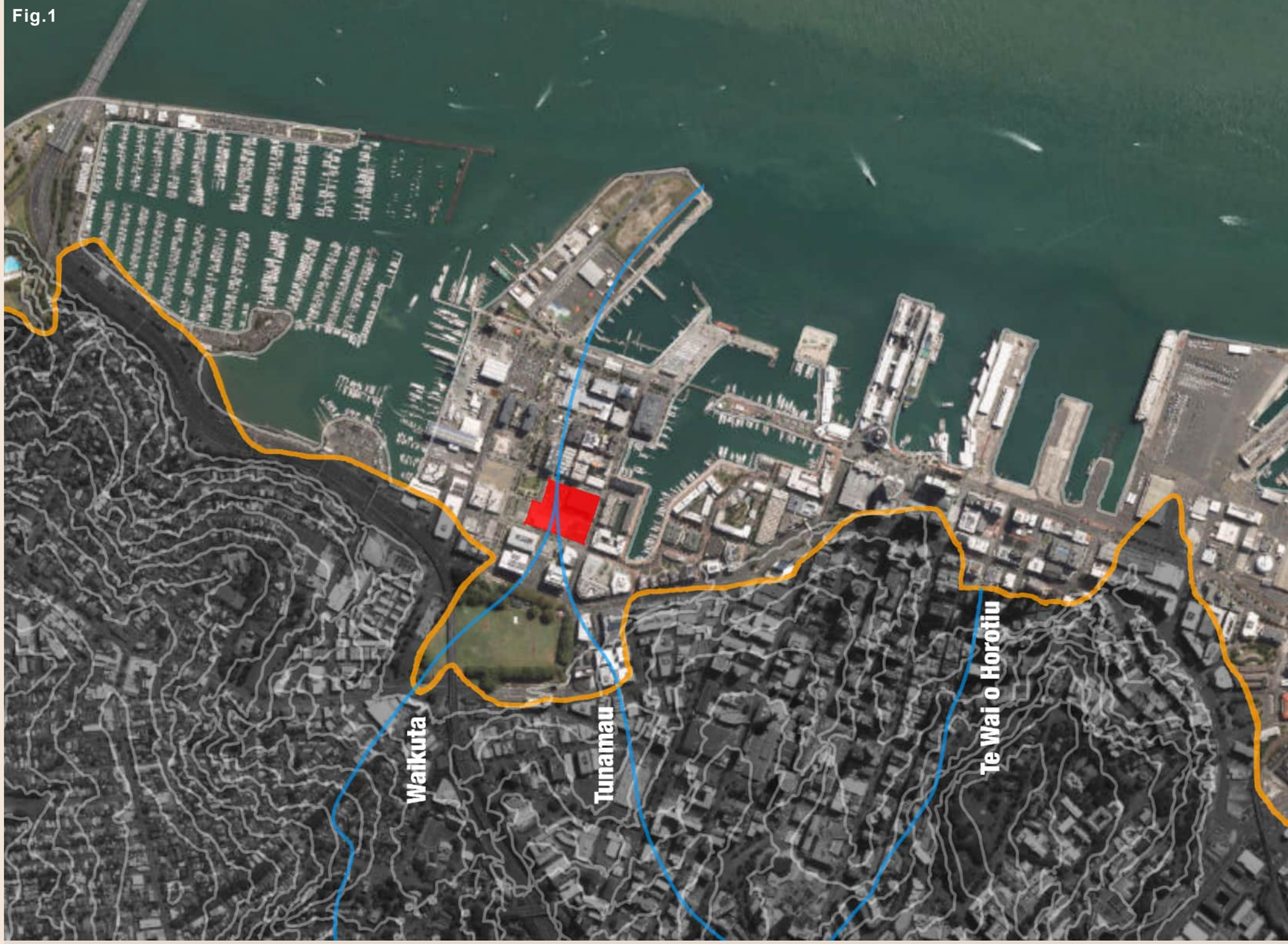



Fig.1 Tamaki Makaurau foreshore (orange line) before the beginning of the development of the wharves in 1840.

Fig.2 Auckland's reclamation zones are north of the original 1840's shoreline (red). Map shows historic bays (light blue), headlands (yellow), paleo-river/stream channels (white arrows showing direction of flow). The surface represents the depth to unweathered East Coast Bays Formations (ECBF) based on subsurface site investigation data and geomorphic cues. The table shows the composition of the geological layers of the reclaimed waterfront and its age.
Source: Lee, Wotherspoon, 2016

| Geologic Unit | Stratigraphic Layers | Broad Engineering Geologic Description | Age |
|---|---|---|---|
| **FILL** | Construction | Mixture of clay to gravel sized sediments with varying levels of compaction. | <174yrs |
| | Hydraulic | Loosely packed, fine grained, soft to firm cohesive soils such as very soft silty sand and clays. | |
| | Historic Industrial Waste | Recompacted clays to gravel sized particles and construction and building waste including old sea walls and building foundations. | |
| | Excavated Rock | Loose to very loose sands and silts excavated from adjacent ECBF cliffs. | |
| **TGA** | Upper | Soft to very soft fine sand, silt and clays. | <10ka |
| | Lower | Soft to very stiff silts, sand, clay-silt, peat and colluvium comprising weakly cemented sub-angular siltstone and sandstone derived gravels. | 2mya – 10ka |
| **ECBF** | Residual Soil | Stiff to very stiff silts and clays. | 23.5 – 16mya |
| | ECBF Rock | Weak to very weak alternating sandstone and siltstone sequences. | |

Fig.2




peddlethorp

# Freshwater

The site is surrounded by flood-prone areas on all sides. The overland flow path that historically ran through Waiataurau (now Freemans Bay) still exists today, meandering through Victoria Park, between Daldy Street and Halsey Street, before flowing into the Viaduct Basin. The site's corner at the intersection of Gaunt Street and Halsey Street is immediately adjacent to this flow path.

**Site information from BRANZ**

Climate Zone: 1
Earthquake Zone: Zone 1
Exposure Zone: Zone D
Lee Zone: No
Rainfall Range: 80 - 90
Wind Region: A
Wind Zone: High

Fig.1-2 Catchment, Hydrology and topography layers from Auckland GIS

**Legend**

1. Site
2. Victoria Park
3. Amey Daldy Park
4. Viaduct Basin
5. Britomart

Floor Prone Areas
Flood Plains
Overland flowpath

peddlethorp

Fig.1

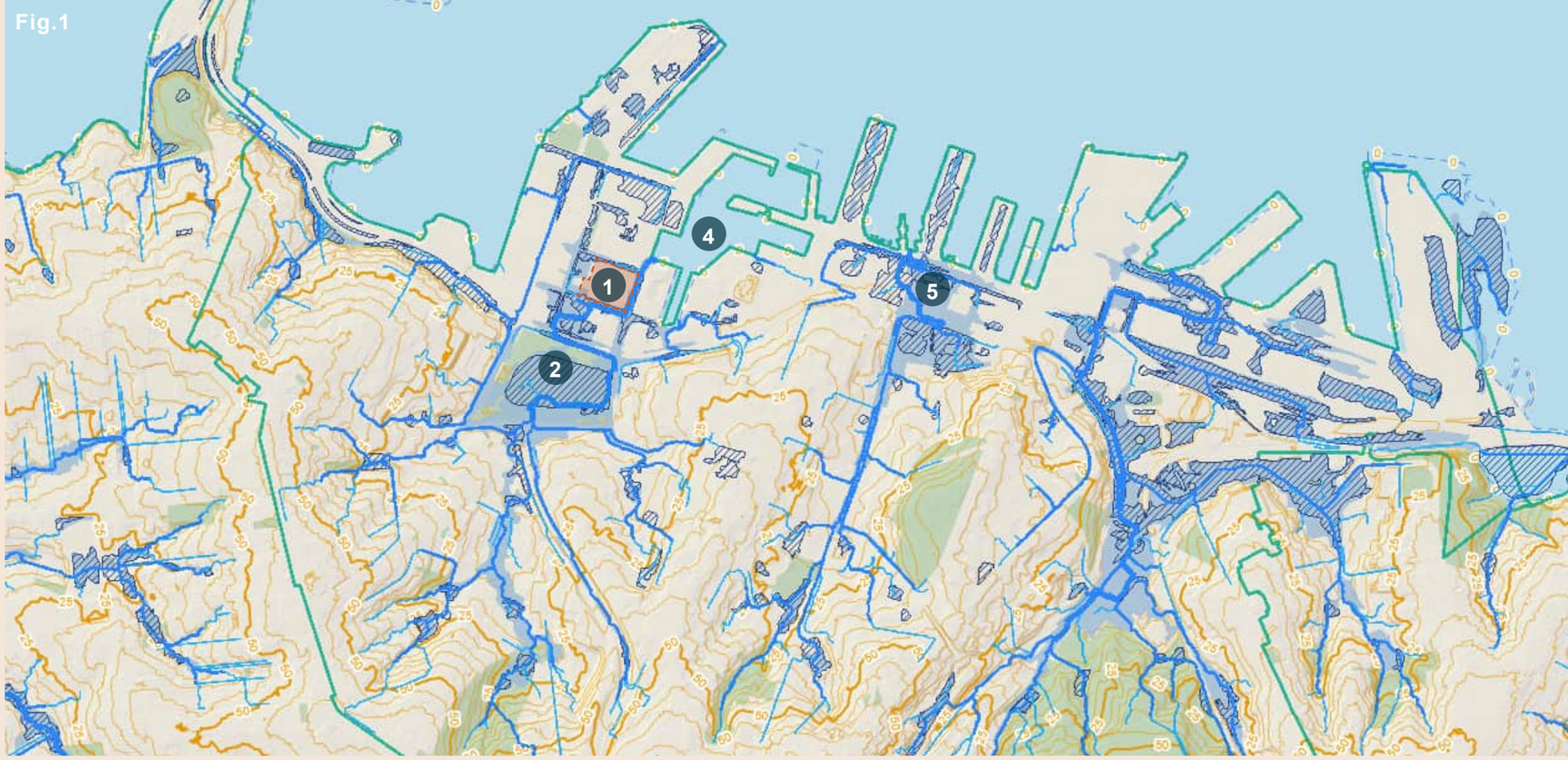
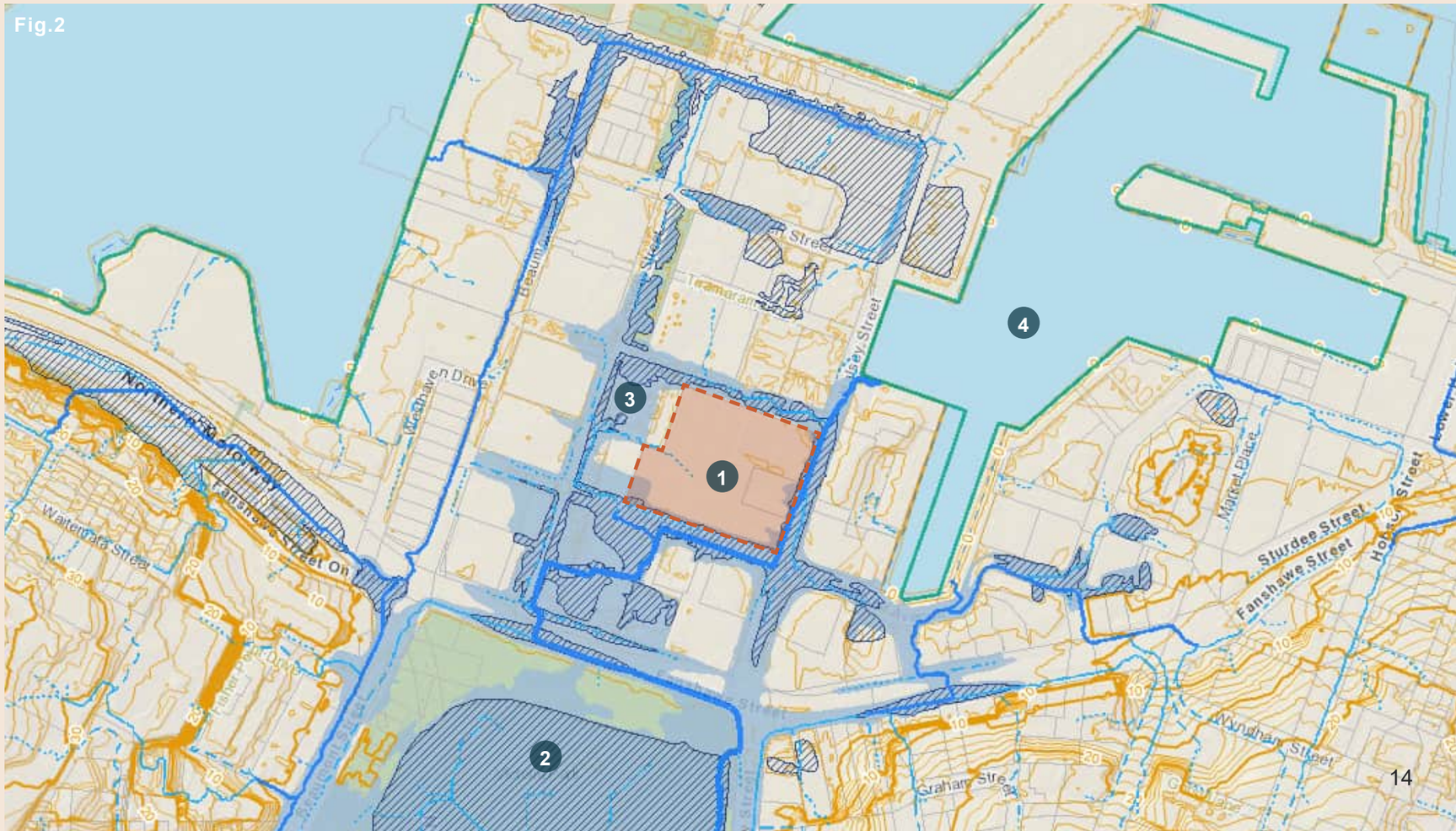



Fig.2



# Seawater

The proximity to the sea and related natural hazards such as tsunami events and climate-change-driven sea level rise requires careful consideration, as these events will affect the resilience of the masterplan and useful life of the proposed buildings.

Auckland Council datasets show the site is currently just outside the tsunami evacuation zone (Fig. 1); however, the sea level rise projections show increasing vulnerability, with potential seawater flooding in the 1 m and 2 m sea level rise scenarios (Figs. 2–4).

In the 1 m sea level rise scenario, tides alone generally do not constitute a risk (Fig. 2); however, when tides combine with other events such as storms, the risk of seawater flooding on the roads surrounding the site increases (Fig. 3).

In the 2 m scenario, the roads surrounding the site will be recurrently flooded during high tides (Fig. 4), and the entire site falls within the flooded zone during exceptional events (Fig. 5).

"*Sea-level rise values applied in the maps align with the projections by the Intergovernmental Panel on Climate Change sixth assessment report (2021), and the Ministry for the Environment (2022) Interim guidance on the use of new sea-level rise projections, which updates the Ministry for the Environment Coastal Hazards and Climate Change Guidance for Local Government (2017).*
*In MfE's (2022) interim guidance, (excluding vertical land movement) one metre sea-level rise is projected to occur between 2095 - >2200, depending on the emission scenario used. Two metre sea-level rise is projected to occur in the longer term (beyond 2150).*"
(Auckland Council Geomaps, accessed the 07.07.2026)

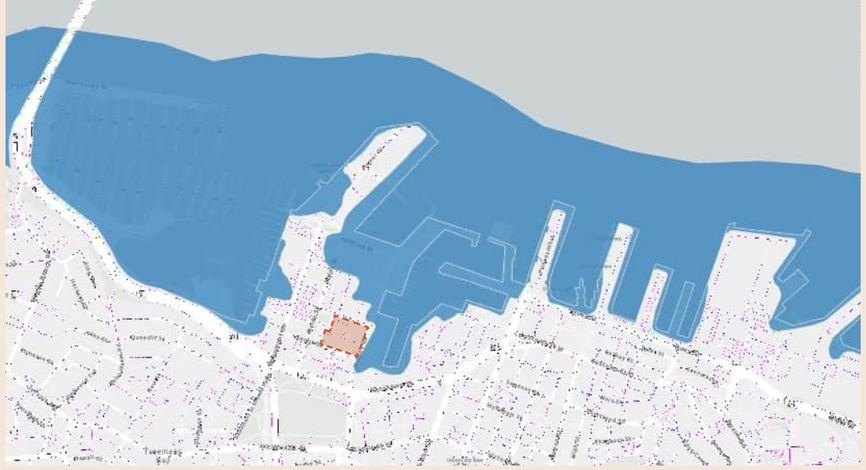


Fig.1 Tsunami evacuation zone (Auckland Council Open Data, feb.2024)

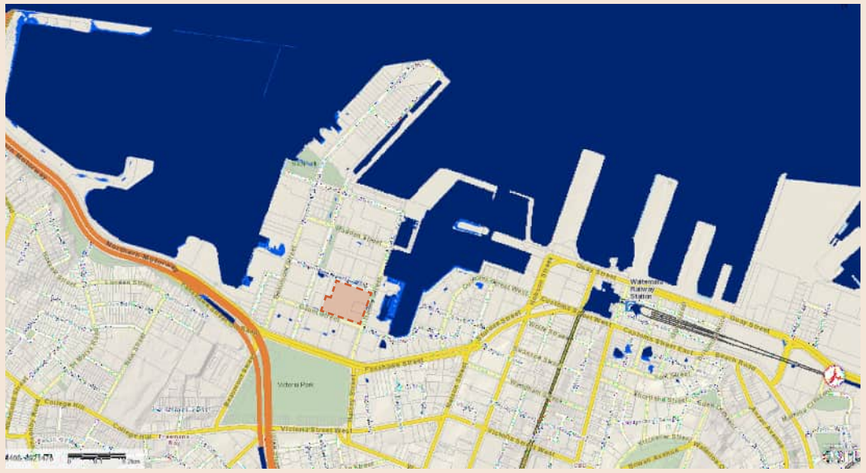


Fig.2 Coastal Inundation - 1m sea level rise scenario, Mean High Water Spring Tides (Auckland Council GIS)

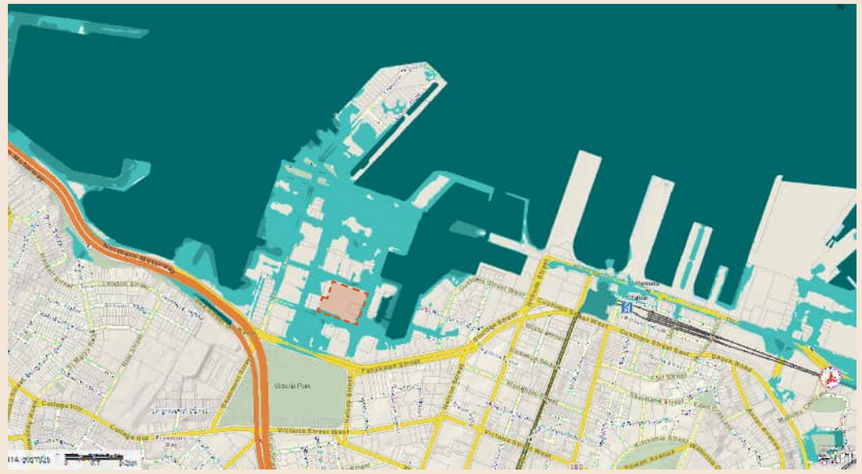


Fig.3 Coastal Inundation - 1m sea level rise scenario, 1% Annual Exceedance Probability (Auckland Council GIS)



Fig.4 Coastal Inundation - 2m sea level rise scenario, Mean High Water Spring Tides (Auckland Council GIS)

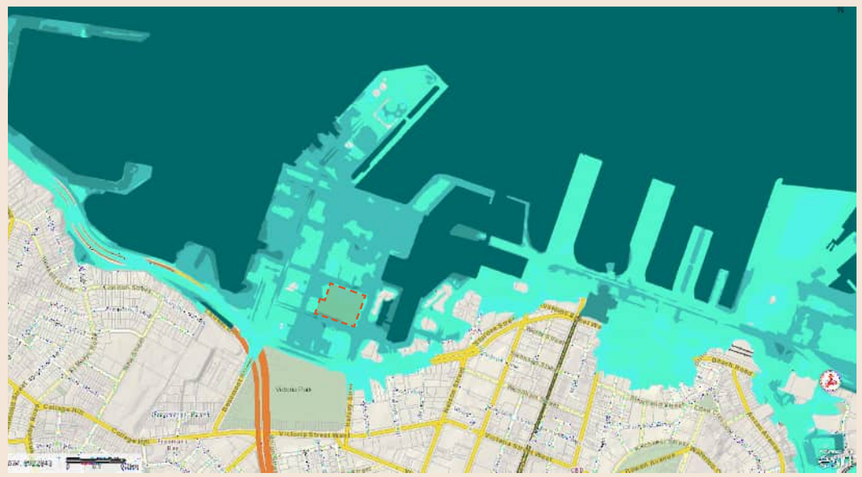


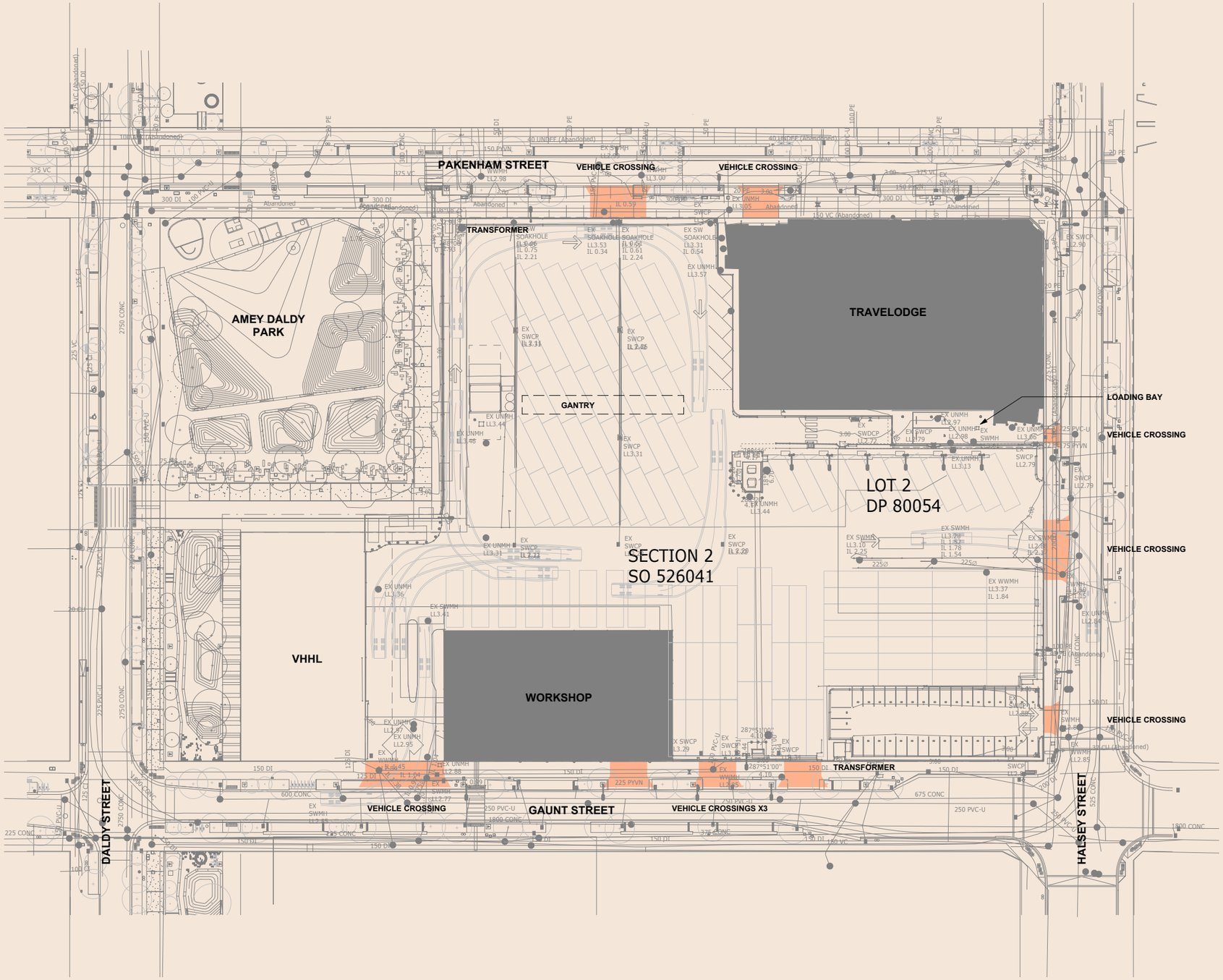
Fig.5 Coastal Inundation - 2m sea level rise scenario, 1% Annual Exceedance Probability (Auckland Council GIS)

# 2

design exploration

# he rapunga hoahoa

peddlethorp




north

# Existing Site Plan

EXISTING VEHICLE CROSSINGS

0 25 50 m

peddlethorp




north

0 25 50 m

# Proposed Site Plan - Development Layout

Urban public realm design not advanced at this Referral Application stage.
This will be developed for the Substantive Application.

peddlethorp




north

0 25 50 m

# Proposed Site Plan - Development Layout

Urban public realm design not advanced at this Referral Application stage.
This will be developed for the Substantive Application.

peddlethorp

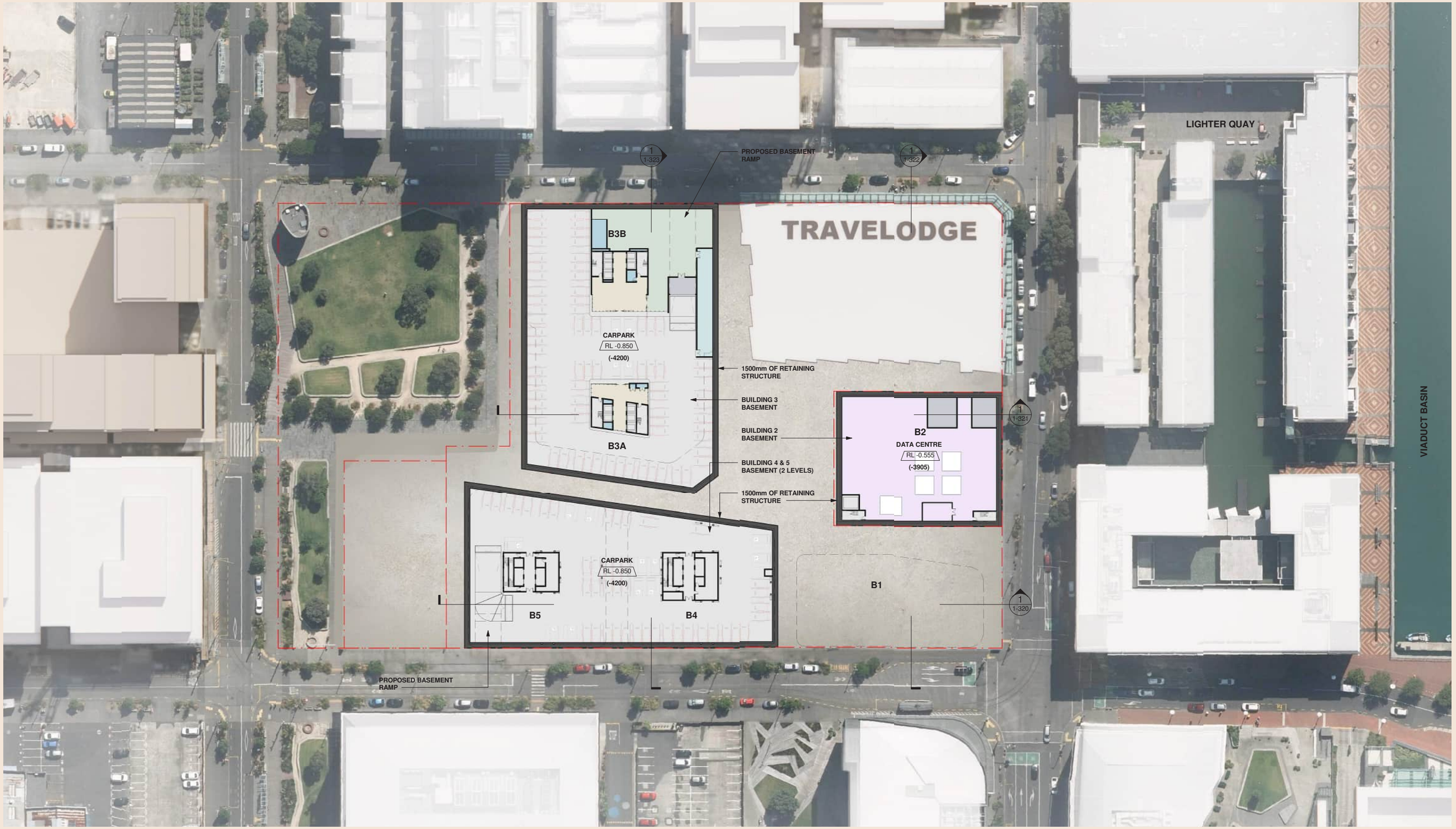



north

0 25 50 m

# Proposed Basement B2

peddlethorp




0 25 50 m

north

# Proposed Basement B1

peddlethorp




north

# Proposed Ground Plane

Floor plans denote indicative ground floor uses.

peddlethorp

EXISTING VEHICLE CROSSINGS RETAINED

PROPOSED VEHICLE CROSSINGS

0 25 50 m

## Legend

- RAISED FLOORS
- RETAIL
- LOBBY
- OFFICE
- TOILETS
- END OF TRIP / BICYCLE
- RISERS
- CIRCULATION
- SERVICES / REFUSE
- LOADING DOCK




north

# Proposed Ground Plane

Floor plans denote indicative ground floor uses.

peddlethorp

EXISTING VEHICLE CROSSINGS RETAINED

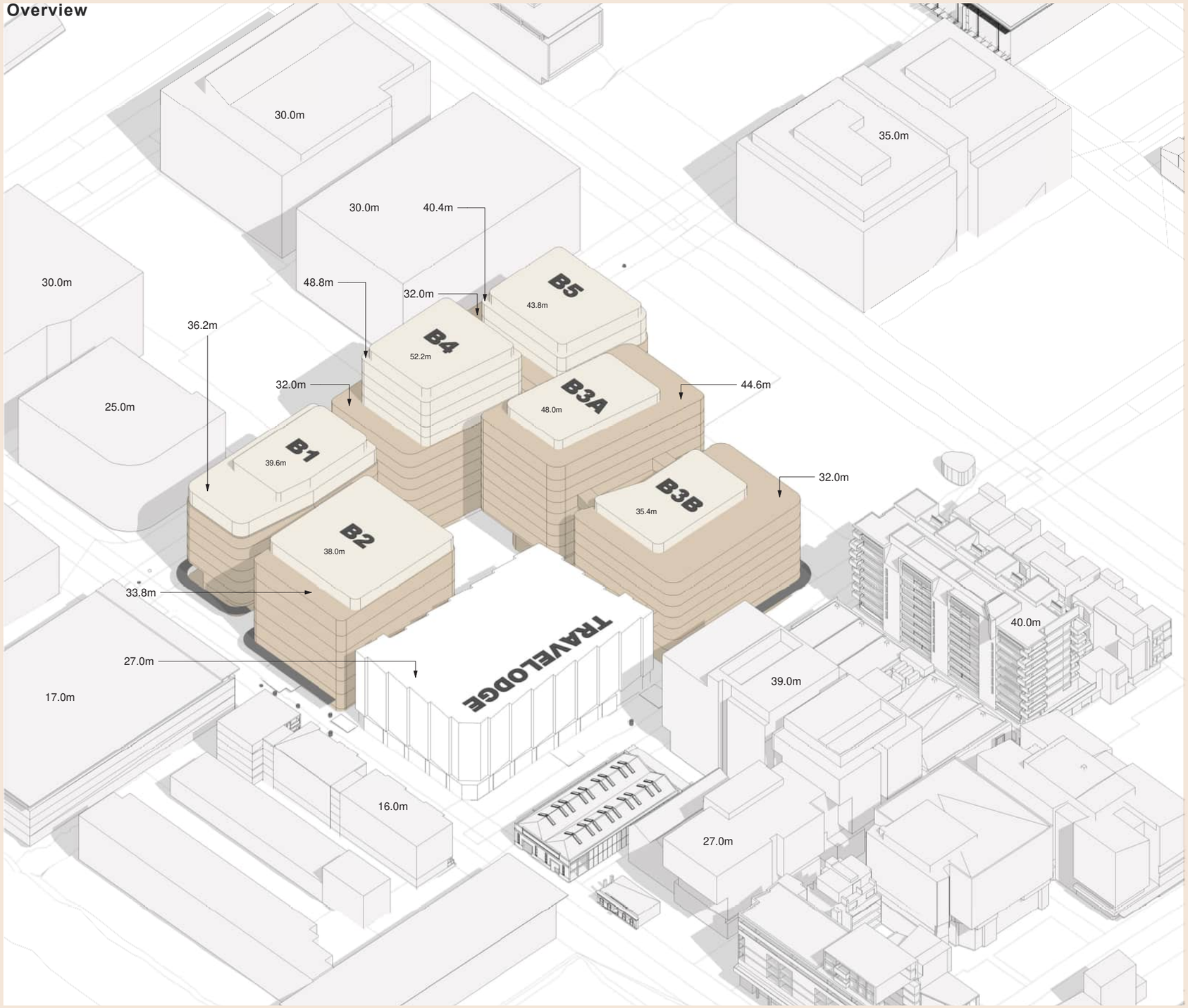
PROPOSED VEHICLE CROSSINGS

0 25 50 m

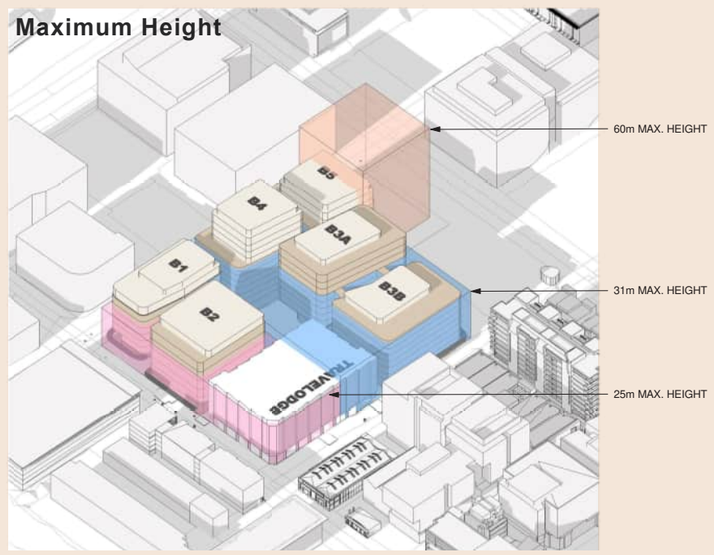
## Legend

- RAISED FLOORS
- RETAIL
- LOBBY
- OFFICE
- TOILETS
- END OF TRIP / BICYCLE
- RISERS
- CIRCULATION
- SERVICES / REFUSE
- LOADING DOCK

## Overview




## Maximum Height




# Proposed Massing

peddlethorp

# Sustainability

A 5-Star Green Star and 5-Star NABERS Energy rating is targeted across the masterplan buildings, with sustainability principles applied consistently while responding to the specific functional and environmental requirements of each building typology.

Whole-of-life carbon performance is addressed through durable construction, adaptable floor plates and design for disassembly, consistent with Green Star life cycle assessment requirements, with embodied carbon benchmarked across all five buildings including the structurally intensive data centre.

Waste heat recovered from the data centre's air-cooling system is being investigated as a potential low-grade energy source for adjacent buildings, supporting precinct-scale energy efficiency and reducing overall reliance on primary heating plant.

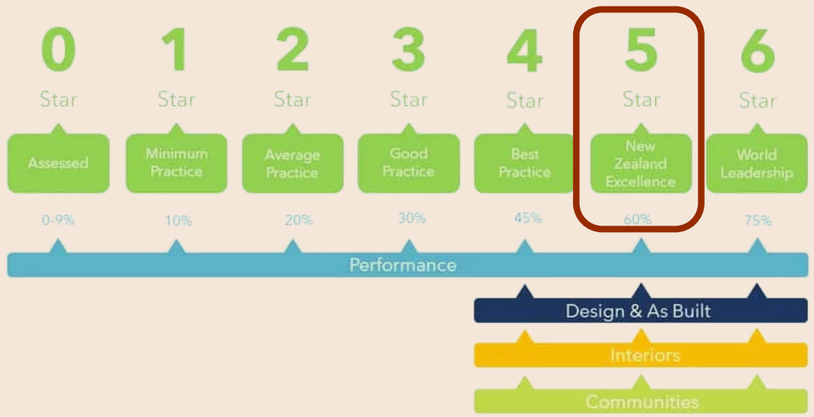
Given the site's coastal location, the masterplan considers resilience to coastal hazards, including tsunami inundation, sea level rise and increased storm intensity, informing finished floor levels, ground floor use and site-wide stormwater management. Water sensitive design principles, including stormwater treatment and reduced potable water demand, respond to the site's harbour-edge context.

Public realm design supports pedestrian activation, biodiversity and mitigation of urban heat island effects across the site, alongside end-of-trip facilities and active transport infrastructure to support modal shift. Engagement with Mana Whenua has informed external spaces and site-wide artwork. Sustainability outcomes are embedded at masterplan stage to allow consistent performance across all five buildings.

peddlethorp

greenstar

Design & As Built, Interiors and Communities Rating based on Design and Commissioning data.
Performance Rating based on post-occupancy data.




NABERS

NABERS Rating based on min. 12 months post-occupancy data.




Proposed target sustainability ratings across the Masterplan




NABERS 5 rating

Greenstar 5 Design & As Built rating

Greenstar 5 Interiors rating

Greenstar 5 Communities rating

3

facade development

# he rapunga hoahoa

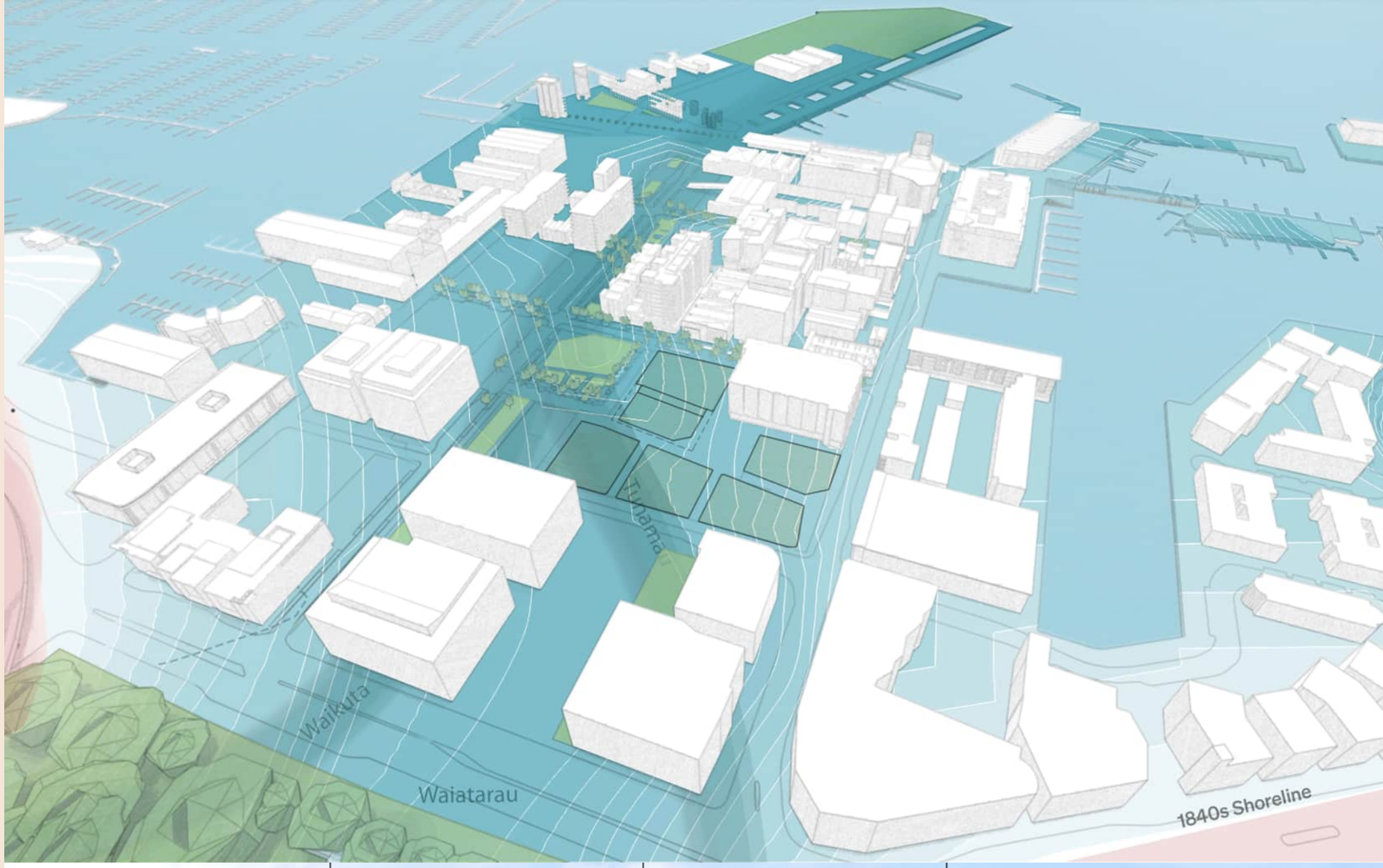
peddlethorp

# Water-Inspired Design

The buildings and streetscape aesthetics draw inspiration from the prehistoric landscapes of Auckland's waterfront, shaped over time by the interaction of freshwater streams, tidal systems, sedimentary landforms, and coastal vegetation. The architecture reinterprets these natural conditions through a contemporary language that connects the site's ecological history with its future urban identity.

A continuous sandstone-clad podium references the layered geology of the East Coast Bays formation, grounding the precinct in the site's ancient seabed origins and creating a unifying architectural datum across all buildings.

Above the podium, each tower expresses a distinct character inspired by the coastal environments once present along Auckland's shoreline, from shimmering harbour waters and sculpted dunes to estuarine ecologies, freshwater habitats, and windswept headlands. Together, the buildings form a family of architectures shaped by a shared narrative of land, water, and time.






peddlethorp

Geological layers of the East Coast Bays Formation characterizing Auckland’s shoreline landscape



Estuary



Foreshore



Breakwater



Grove



B3

B5

B4

B2

B1

Headland



## B1
### Headlands

Inspired by the shifting, shimmering light reflecting off the waters of Auckland's ancient, cliff-lined shores.



## B2
### Breakwater

Inspired by the forces and energy of the shoreline, where the rock's unmoving opacity meets the dynamic, foaming patterns of water breaking against it.



## B3
### Foreshore

Inspired by the natural contrasts of the New Zealand East Coast foreshore, where light, pattern-rich sands meet the enduring, anchoring presence of ocean-worn stone.



## B4
### Grove

Inspired by the native New Zealand trees and mangroves at the water's edge, blending dark, textured bark with the bright reflections of the coastal streams.



## B5
### Estuary

Inspired by the journey of the ancient streams once flowing across the site, capturing the delicate transparencies and woven patterns of their shallow currents



### Sandstone podium - all buildings

Inspired by the ancient strata of the East Coast Bays, a unifying canvas of sandstone that ties the precinct back to the silent history of the early coast.



Building Facade palette

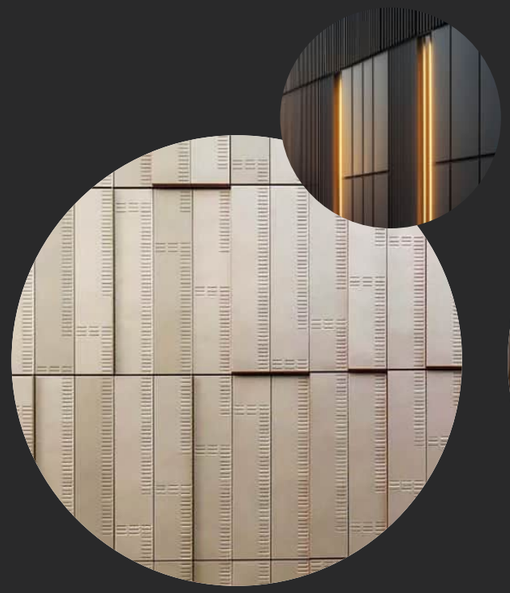
## B1
### Headlands

Glass,
Reflective Metal panels,
Rooftop vegetation



## B2
### Breakwater

Engraved and perforated
Metal panels,
Subtle LED lights



## B3
### Foreshore

Glass,
Bronze Metal panels,
Bronze Metal fins,
Rooftop vegetation



## B4
### Grove

Glass,
Terracotta inserts
with dark glaze,
Green facade accents



## B5
### Estuary

Glass,
Ceramic Fritted Glass,
Facade-integrated
water features



Sandstone podium - all buildings

Sandstone cladding + Black Metal



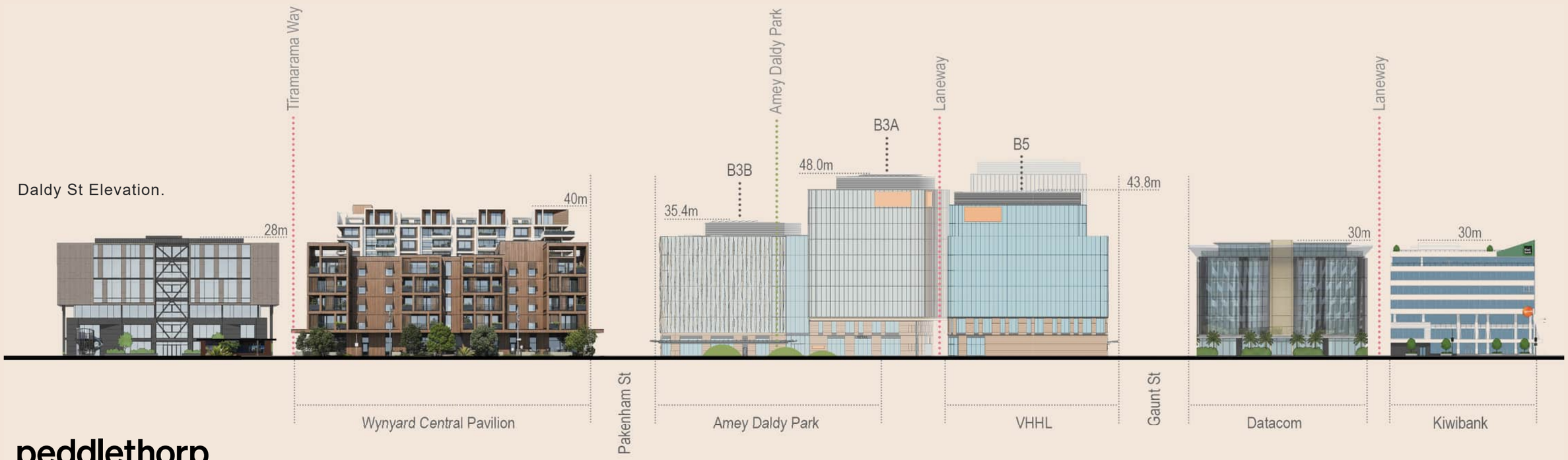
peddlethorp

# Street Elevations

Halsey St Elevation.



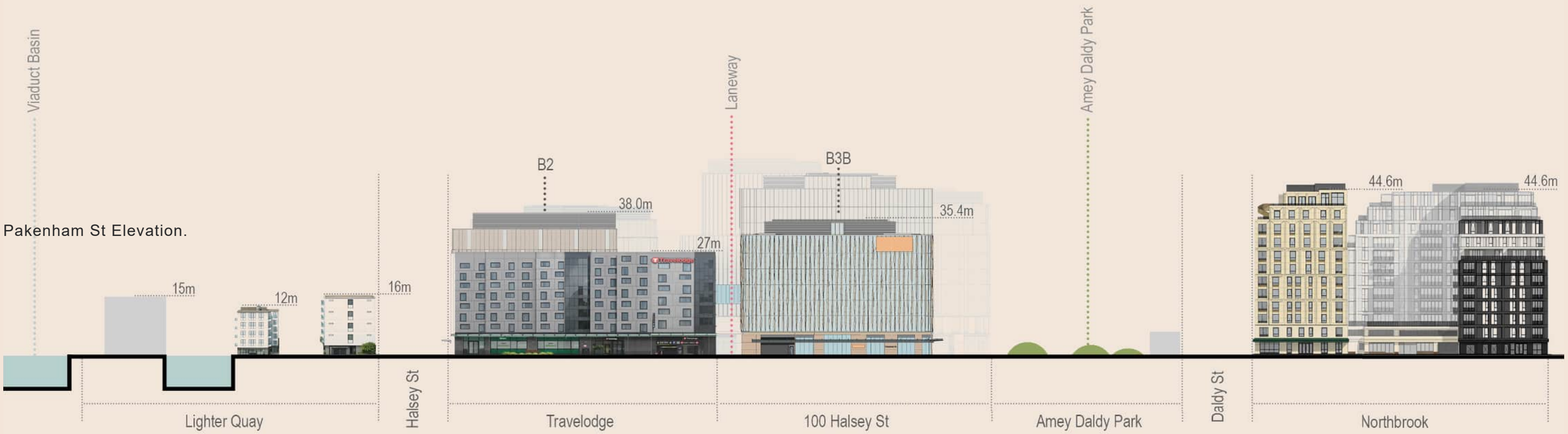

Daldy St Elevation.



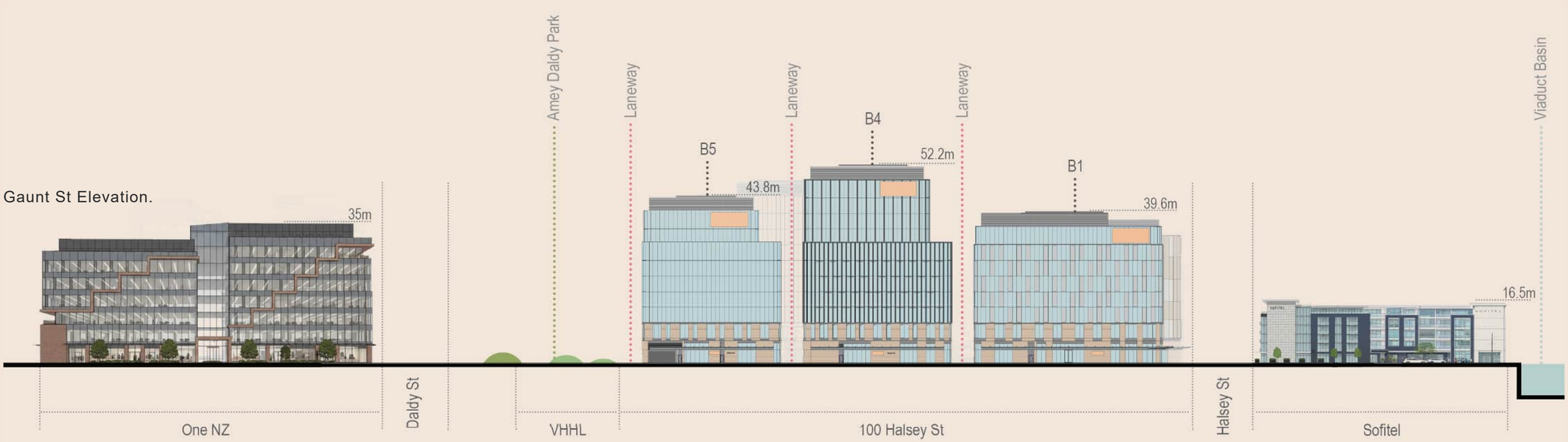

peddlethorp

# Street Elevations

Pakenham St Elevation.




Gaunt St Elevation.




peddlethorp

peddlethorp

# PUBLIC REALM CONCEPT PLAN

PAKENHAM STREET WEST

AMEY DALDY PARK

DALDY STREET

VHHL

B3B

B3A

LANE 3

TRAVELODGE

LANE 2

HALSEY STREET

B2

LANE 1

B5

LANE 5

B4

LANE 4

B1

GAUNT STREET

0 25m

1:600 @ A3

# STREETSCAPE ADJUSTMENT PLAN

## PAKENHAM STREET WEST

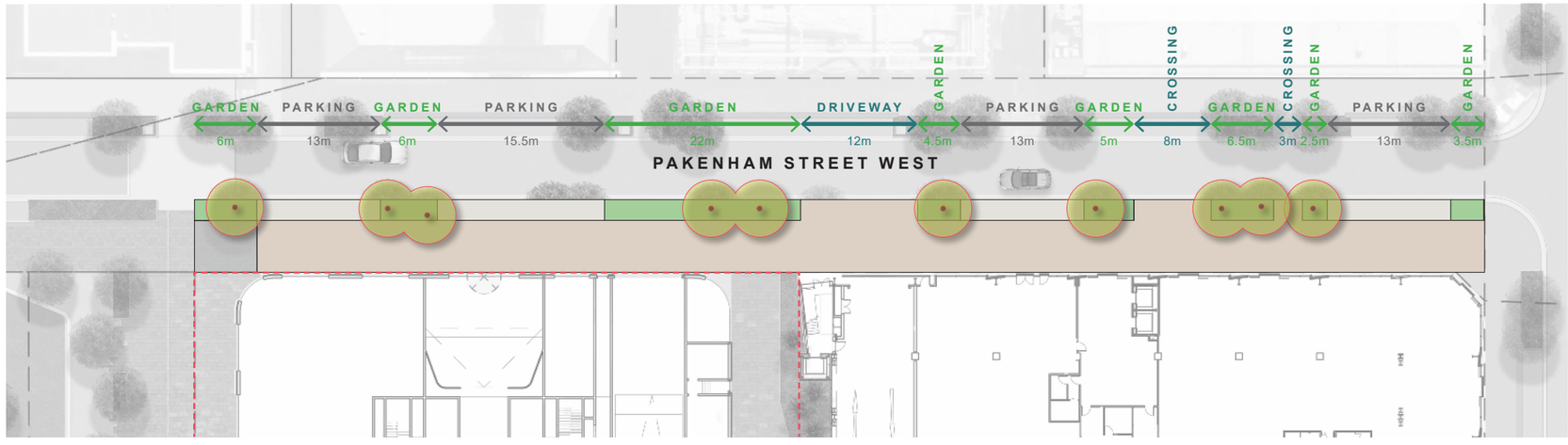
### LEGEND

- INSITU CONCRETE PAVING
- INSITU CONCRETE CARPARKS
- STONE PAVING
- RAINGARDENS
- EXISTING TREES
- PROPOSED TREES
- PROPOSED REMOVAL OF EXISTING TREES
- 100 HALSEY STREET SITE BOUNDARY

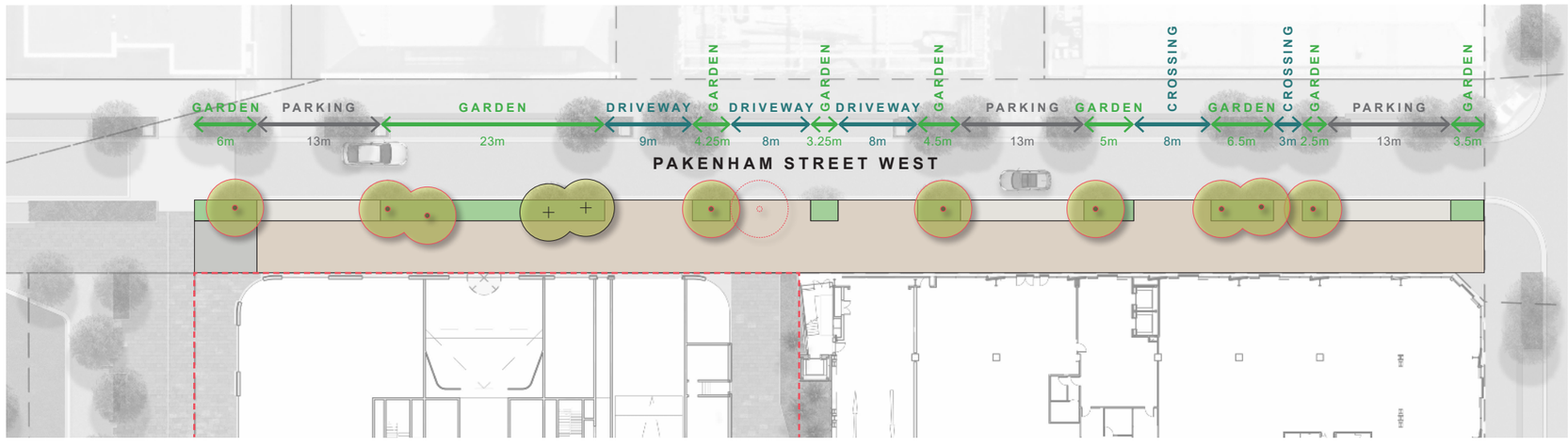
### TOTAL LENGTH COMPARISON WITHIN IDENTIFIED AREAS

| | EXISTING | PROPOSED |
|---|---|---|
| CAR PARKING BAYS | 54.5M | 39M |
| GARDENS & RAINGARDENS | 56M | 58.5M |
| DRIVEWAYS & CROSSINGS | 23M | 36M |

### EXISTING




### PROPOSED




0 25m

1:600 @ A3

# STREETSCAPE ADJUSTMENT PLAN

## GAUNT STREET

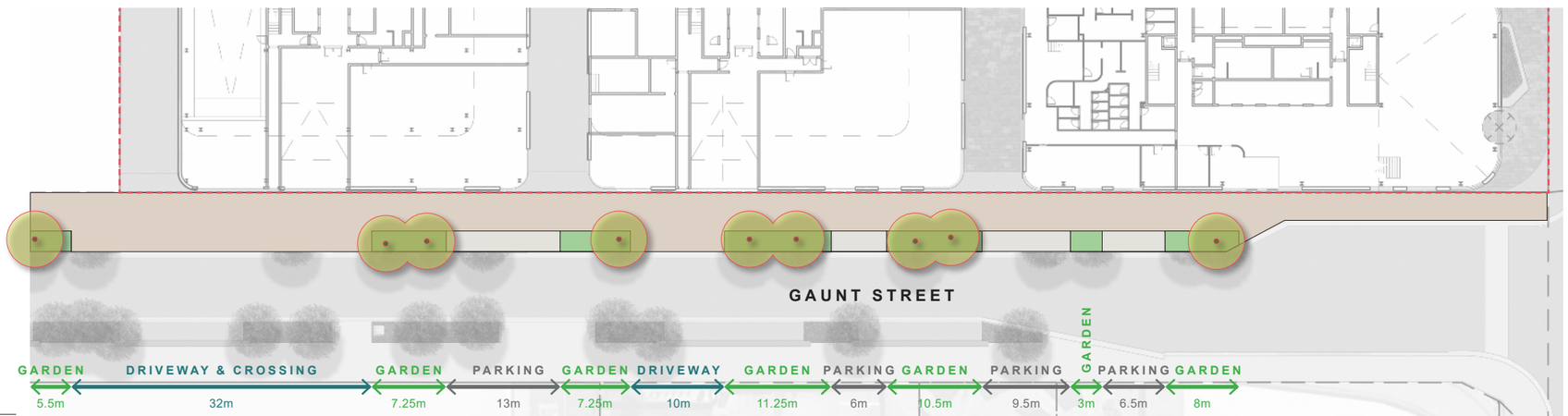
### LEGEND

- INSITU CONCRETE PAVING
- INSITU CONCRETE CARPARKS
- STONE PAVING
- RAINGARDENS
- EXISTING TREES
- PROPOSED TREES
- PROPOSED REMOVAL OF EXISTING TREES
- 100 HALSEY STREET SITE BOUNDARY

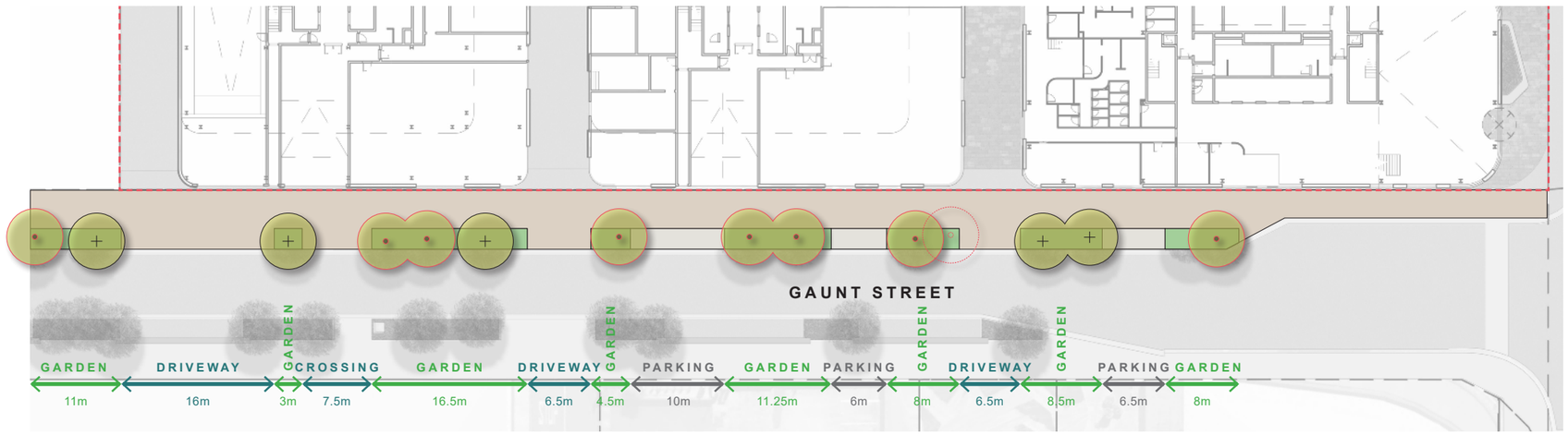
### TOTAL LENGTH COMPARISON WITHIN IDENTIFIED AREAS

| | EXISTING | PROPOSED |
|---|---|---|
| CAR PARKING BAYS | 35M | 22.5M |
| GARDENS & RAINGARDENS | 52.75M | 70.75M |
| DRIVEWAYS & CROSSINGS | 42M | 36.5M |

### EXISTING




### PROPOSED




0 25m

1:600 @ A3

# STREETSCAPE ADJUSTMENT PLAN

## HALSEY STREET

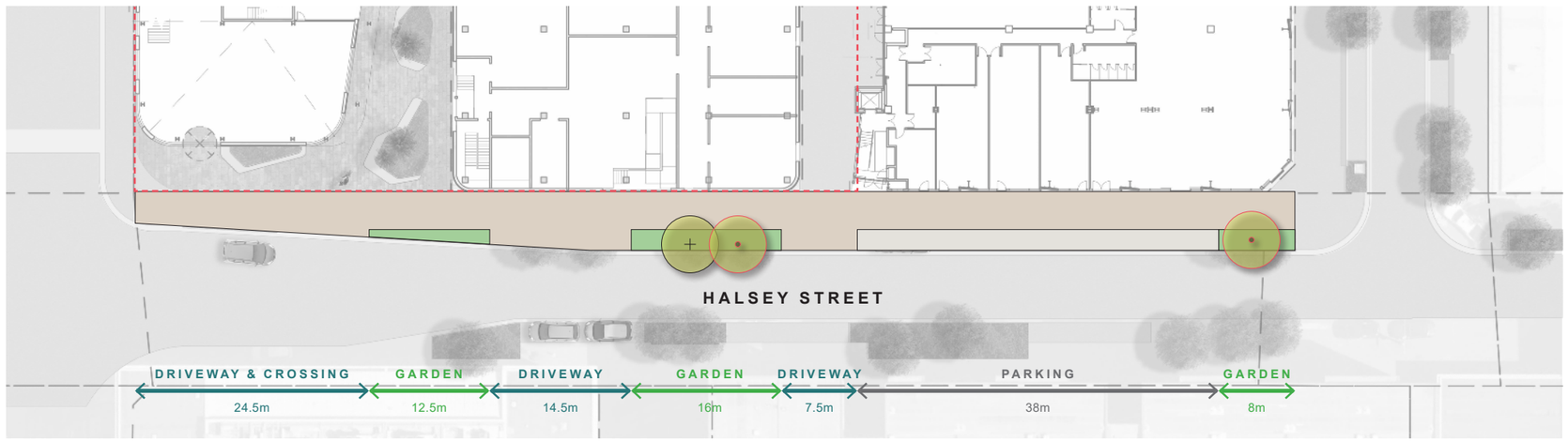
### LEGEND

- INSITU CONCRETE PAVING
- INSITU CONCRETE CARPARKS
- STONE PAVING
- RAINGARDENS
- EXISTING TREES
- PROPOSED TREES
- PROPOSED REMOVAL OF EXISTING TREES
- 100 HALSEY STREET SITE BOUNDARY

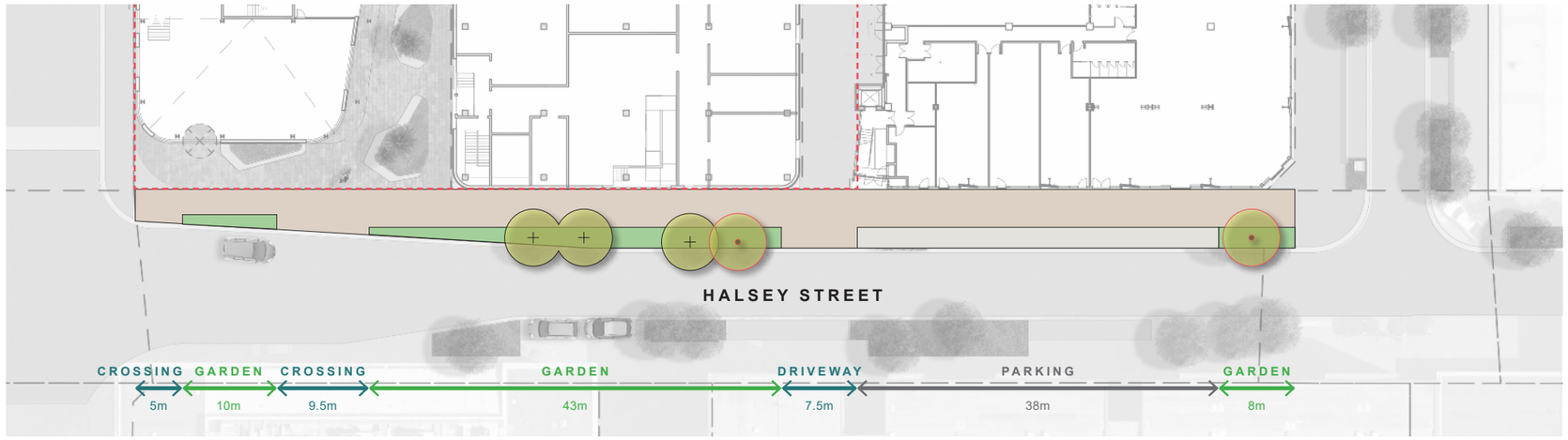
### TOTAL LENGTH COMPARISON WITHIN IDENTIFIED AREAS

| | EXISTING | PROPOSED |
|---|---|---|
| CAR PARKING BAYS | 38M | 38M |
| GARDENS & RAINGARDENS | 36.5M | 61M |
| DRIVEWAYS & CROSSINGS | 46.5M | 22M |

### EXISTING




### PROPOSED




0 25m

1:600 @ A3

# Appendix C Preliminary stormwater capacity assessment

DRAFT

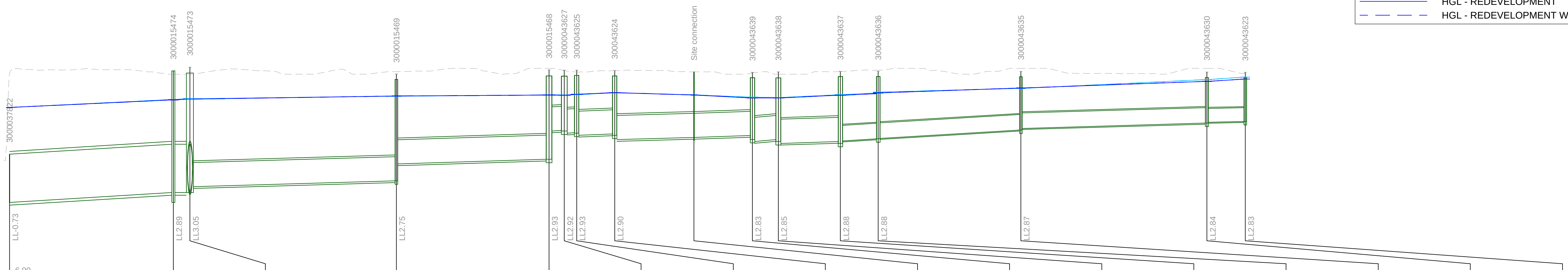
COPYRIGHT ON THIS DRAWING IS RESERVED    DO NOT SCALE FROM THIS DRAWING - IF IN DOUBT, ASK.    DRAWING MAY CONTAIN COLOUR CONTENT, T+T LOGO WILL SHOW IN COLOUR IF PRINTED CORRECTLY.



12d MODEL:    FOLDER PATH:    PPF FILE: c:\12d\15.00\user_lib\PPF TT_WLS_DES_SW(1).drainppf

LEGEND

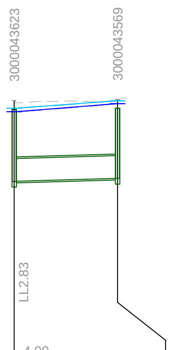
- HGL - EXISTING
- HGL - EXISTING WITH CLIMATE CHANGE
- HGL - REDEVELOPMENT
- HGL - REDEVELOPMENT WITH CLIMATE CHANGE




DATUM (mRL) -6.00

| CHAINAGE (m) | EXISTING LEVEL | PIPE INVERT LEVEL (in) | PIPE INVERT LEVEL (out) | DEPTH TO PIPE INVERT (in) | DEPTH TO PIPE INVERT (out) | PIPE INFO (to next) |
|---|---|---|---|---|---|---|
| 0.00 | 2.78 | -2.83 | -2.83 | 5.61 | 5.61 | DN2100 GRADE: 0.61% LENGTH: 71.08m |
| 71.08 | 2.75 | -2.40 | -2.40 | 5.15 | 5.15 | DN2100 GRADE: 0.00% LENGTH: 7.23m |
| 78.31 | 2.75 | -2.40 | -2.15 | 5.15 | 4.89 | DN1050 GRADE: 0.28% LENGTH: 89.64m |
| 167.95 | 2.86 | -1.90 | -1.15 | 4.76 | 4.02 | DN1050 GRADE: 0.30% LENGTH: 66.26m |
| 234.22 | 3.00 | -0.95 | 0.28 | 3.95 | 2.73 | DN1050 GRADE: 0.41% LENGTH: 6.64m |
| 240.85 | 2.90 | 0.30 | 0.18 | 2.60 | 2.72 | DN1050 GRADE: 0.35% LENGTH: 5.37m |
| 246.23 | 2.84 | 0.20 | 0.09 | 2.63 | 2.75 | DN1050 GRADE: 0.35% LENGTH: 16.50m |
| 262.72 | 2.90 | 0.15 | -0.09 | 2.75 | 2.99 | DN1050 GRADE: 0.27% LENGTH: 34.44m |
| 297.16 | 2.85 | 0.00 | 0.00 | 2.85 | 2.85 | DN1050 GRADE: 0.31% LENGTH: 25.38m |
| 322.54 | 2.80 | 0.08 | -0.18 | 2.72 | 2.98 | DN1050 GRADE: 0.79% LENGTH: 11.24m |
| 333.78 | 2.75 | -0.09 | -0.26 | 2.84 | 3.01 | DN1050 GRADE: 0.30% LENGTH: 26.94m |
| 360.73 | 2.86 | -0.18 | -0.15 | 3.04 | 3.01 | DN675 GRADE: 0.55% LENGTH: 16.42m |
| 377.15 | 2.91 | -0.06 | -0.04 | 2.98 | 2.96 | DN675 GRADE: 0.58% LENGTH: 61.92m |
| 439.07 | 3.00 | 0.32 | 0.39 | 2.68 | 2.61 | DN675 GRADE: 0.29% LENGTH: 80.81m |
| 519.88 | 3.00 | 0.62 | 0.66 | 2.38 | 2.34 | DN600 GRADE: 0.19% LENGTH: 16.63m |
| 536.51 | 2.78 | 0.69 | | 2.08 | | |

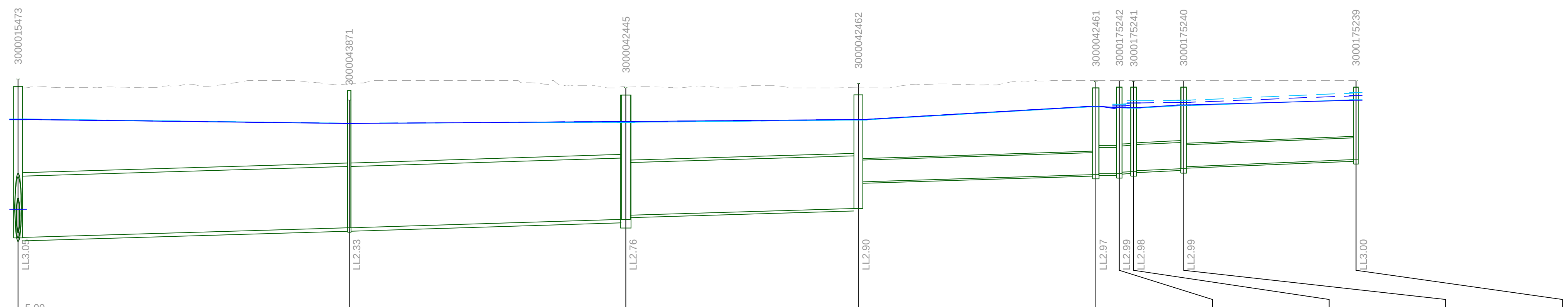
GAUNT STREET




DATUM (mRL) -4.00

| CHAINAGE (m) | EXISTING LEVEL | PIPE INVERT LEVEL (in) | PIPE INVERT LEVEL (out) | DEPTH TO PIPE INVERT (in) | DEPTH TO PIPE INVERT (out) | PIPE INFO (to next) |
|---|---|---|---|---|---|---|
| 536.51 | 2.78 | 0.69 | 0.70 | 2.08 | 2.08 | DN600 GRADE: 0.29% LENGTH: 27.32m |
| 563.83 | 2.86 | 0.78 | | 2.09 | | |

GAUNT STREET




DATUM (mRL) -5.00

| CHAINAGE (m) | EXISTING LEVEL | PIPE INVERT LEVEL (in) | PIPE INVERT LEVEL (out) | DEPTH TO PIPE INVERT (in) | DEPTH TO PIPE INVERT (out) | PIPE INFO (to next) |
|---|---|---|---|---|---|---|
| 0.00 | 2.75 | -2.40 | -2.38 | 5.15 | 5.13 | DN2100 GRADE: 0.29% LENGTH: 113.55m |
| 113.55 | 2.89 | -2.04 | -2.04 | 4.93 | 4.93 | DN2100 GRADE: 0.31% LENGTH: 94.83m |
| 208.37 | 2.81 | -1.75 | -1.61 | 4.57 | 4.43 | DN1800 GRADE: 0.29% LENGTH: 79.80m |
| 288.17 | 2.77 | -1.38 | -0.47 | 4.15 | 3.24 | DN750 GRADE: 0.31% LENGTH: 81.39m |
| 369.56 | 3.00 | -0.22 | -0.19 | 3.22 | 3.19 | DN900 GRADE: 0.00% LENGTH: 8.06m |
| 377.62 | 3.00 | -0.19 | -0.14 | 3.19 | 3.14 | DN900 GRADE: 0.41% LENGTH: 4.90m |
| 382.52 | 3.00 | -0.12 | -0.09 | 3.12 | 3.09 | DN900 GRADE: 0.41% LENGTH: 17.17m |
| 399.68 | 3.00 | -0.02 | 0.05 | 3.02 | 2.95 | DN750 GRADE: 0.40% LENGTH: 59.09m |
| 458.77 | 3.00 | 0.29 | | 2.71 | | |

PAKENHAM STREET WEST

FOR INFORMATION

| REV | DESCRIPTION | CAD | CHK | DATE |
|---|---|---|---|---|
| A | FOR INFORMATION | CHAR | MAMC | 08.10.26 |

| | | |
|---|---|---|
| DESIGNED | CHAR | 08.10.26 |
| DRAWN | CHAR | 08.10.26 |
| DESIGN CHECKED | | |
| DRAWING CHECKED | | |

DRAWING STATUS: FOR INFORMATION
PROJECT PHASE: PRELIMINARY

NOT FOR CONSTRUCTION

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS SIGNED AS APPROVED

APPROVED    DATE

CLIENT: RP FINANCIAL
PROJECT: 100 HALSEY STREET - WYNYARD PRECINCT
TITLE: PUBLIC STORMWATER CAPACITY ASSESSMENT LONGSECTION SHEET 1
SCALE (A1): 1:1000 (H) 1:100 (V)    DWG No. SK 001    REV A

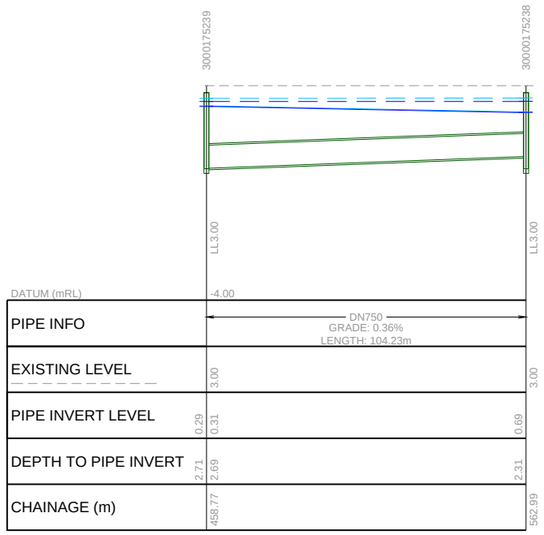
COPYRIGHT ON THIS DRAWING IS RESERVED DO NOT SCALE FROM THIS DRAWING - IF IN DOUBT, ASK. DRAWING MAY CONTAIN COLOUR CONTENT, T+T LOGO WILL SHOW IN COLOUR IF PRINTED CORRECTLY.



12d MODEL: FOLDER PATH: PPF FILE: c:\12d\15.00\user_dat\PPF\TT_WLS_DES_SW(1).dramppf

LEGEND

- HGL - EXISTING
- HGL - EXISTING WITH CLIMATE CHANGE
- HGL - REDEVELOPMENT
- HGL - REDEVELOPMENT WITH CLIMATE CHANGE




PAKENHAM STREET WEST

# FOR INFORMATION

| REV | DESCRIPTION | CAD | CHK | DATE |
|---|---|---|---|---|
| A | FOR INFORMATION | CHAR | MAMC | 08.10.26 |

| | | | | |
|---|---|---|---|---|
| DESIGNED | CHAR | 08.10.26 | DRAWING STATUS | |
| DRAWN | CHAR | 08.10.26 | FOR INFORMATION | |
| DESIGN CHECKED | | | PROJECT PHASE | |
| DRAWING CHECKED | | | PRELIMINARY | |

NOT FOR CONSTRUCTION

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS SIGNED AS APPROVED

APPROVED DATE

CLIENT RP FINANCIAL

PROJECT 100 HALSEY STREET - WYNYARD PRECINCT

TITLE PUBLIC STORMWATER CAPACITY ASSESSMENT
LONGSECTION SHEET 2

SCALE (A1) 1:1000 (H) 1:100 (V) DWG No. SK 002 REV A




Together we create + sustain a better world