



18 October 2023  
Our Ref: 1000016.0911.0.0/Rep2

Permeable Concrete NZ Limited  
24 Hoteo Avenue  
Auckland 2025

Attention: Stuart Girvan

Dear Stuart

**27 Dawnhaven Dr, Te Atatu**  
**Site Report – Benkelman Beam Testing**

**Customer's Instructions**

We were instructed to complete:

Complete Benkelman beam tests at the above mentioned site as directed by Stuart Girvan on behalf of Permeable Concrete NZ Ltd.

**Specifications**

None issued.

**Date of Procedure**

17/10/2023

**Location**

Benkelman beam pavement deflection tests were taken at existing locations as indicated on the site map.

The attached plan provides indicative locations only and is not to scale. All other information we provide regarding location should be referenced to the asset owner.

**Method**

TNZ T/1 Method 1977 Benkelman Beam Deflection Measurements.

**Material Description**

Material descriptions are provided in the attached results.

## Results

The following is attached:

- Test Results.

## Test Remarks

The customer requested we test on top of permeable concrete made up of Gap 10 held together with cement.

The Benkelman Beam test results could be affected by the permeable concrete, as the concrete could act like a slab.

## Benkelman Beam

- Estimate of uncertainty for rebound deflections is +3.0 %.
- The axle load is recorded at 8.2 tonnes.

## General Remarks

This report has been prepared for the benefit of Permeable Concrete NZ Limited, with respect to the particular brief given to us and it cannot be relied upon in other contexts or for any other purpose without our prior review and agreement.

The inherent uncertainties of site investigation work, mean the nature and continuity of subsoil away from the test location could vary from the data logged.

Please reproduce this report in full when transmitting to others or including in internal reports.

If we can be of any further assistance, feel free to get in touch. Contact details are provided at the bottom of the letterhead page.

GEOTECHNICS LTD

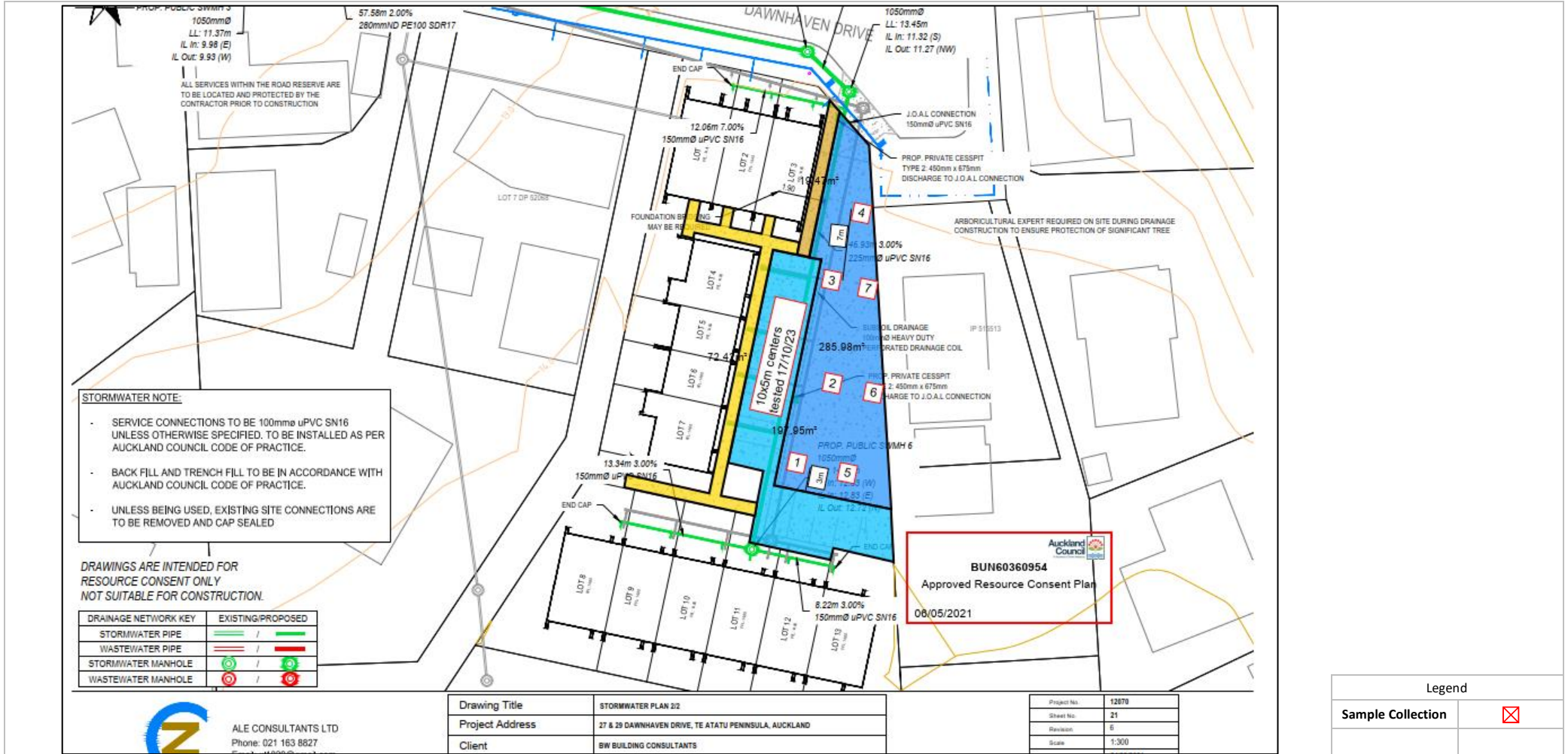
Report approved by:

Authorised for Geotechnics by:

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Steven Anderson  
Project Director

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Steven Anderson  
Project Director

20-Oct-23  
document1



### LOCATION PLAN



1 Hill Street  
Onehunga  
Auckland, 1061

Site	1 Hill Street Onehunga Auckland, 1061
Location	As per site plan
Project	27 Dawnhaven Dr, TeAtatu

Our Ref	1000016.0911.0.0/Rep2
Customer Ref	
Lab Ref	

Drawn By	kms	Date	17/10/23
Checked By	chca	Date	18/10/23
Scale	Not to Scale		



Test Results – 19<sup>th</sup> April 2023

		Chainage/ Locations	Wheel Track	Rebound Deflection (mm)	Remarks
<b>Start Time</b>	10.30am	1	L	0.32	Driveway
		2	R	0.24	
<b>Conditions</b>	Fine	3	L	0.24	
		4	R	0.26	
<b>Test Surface</b>	Permeable concrete	5	L	0.40	
		6	R	0.28	
<b>Material Condition</b>	Compacted Dry	7	L	0.20	
<b>Grid Centres</b>	Y 10 (m) X 5 (m)				
<b>Temperature</b>	NR (°C)				