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Tauranga City Council
21 Devonport Road
Tauranga 3143
New Zealand

16 November 2023

Attention: s 7(2)(f)(ii)

Dear s 7(2)(f)(ii

Mauao Awaiti Viewing Platform - Building Consent No. BC330131 - Ground Confirmation Statement

Beca Ltd (Beca) has been commissioned by Tauranga City Council (TCC) to provide construction monitoring for the Mauao Awaiti Viewing Platform project. The project is located at 1 Adams Avenue, Mt Maunganui, Tauranga along the Mauao base track and involves the construction of a timber viewing platform founded on pad footings.

This letter presents a ground confirmation statement for new foundations in accordance with the conditions set out under Building Consent No. BC330131, and the design assumptions set out in the Structural Design Drawing set issued for Building Consent (4280807-SE-2000 Rev 0A to 4280807-SE-2005 Rev 0A, dated 17/04/2023), which requires a minimum ultimate bearing capacity of 300 kPa.

Ground Confirmation Statement

Beca has carried out a site visit during construction to inspect the ground conditions. A record of our site visit is included in Attachment 1. Dimensions and position of the foundations comply with the minimum requirements set out on drawing 4280807-SE-2005 Rev 0A except for one location on Grid D where excavation terminated 100mm above the target founding level. However, the ground conditions at this location where rock was encountered are more favourable than those assumed in design.

Scala penetrometer tests at each pad location were carried out by the contractor. Test results are included in Attachment 2. Testing at all pad locations hit refusal at shallow depth.

Based on our site visit and review of testing results, we are satisfied that a geotechnical ultimate bearing capacity of 300 kPa is available from the supporting ground directly beneath the pad foundations.

Yours sincerely

s 7(2)(a) - Privacy

Tauranga City Council Category 1 Accredited Geo-Professional

on behalf of

Beca Limited

Phone
Email: s 7(2)(a) - Privacy

Copy

s 7(2)(a) - Privacy Beca

Attachments

1) Beca Site Visit Report
2) Scala penetrometer test results – provided by contractor

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Attachment 1 – Beca Site Visit Report

Job N°: 4280807
Page N°: 1 of 3
Date: 2 November 2023
Beca Ref: 4280807-318756720-470

Site Visit Report N° 001

Project: Mauao Placemaking Project
Principal: Tauranga City Council
Contractor: Bridge It NZ

Area of site visited:	Grids A - G	**Purpose of visit:**	Concrete Footing Cavity Inspection
Date/Time of visit:	02/11/2023 at 3:20pm	**Weather:**	Cloudy
Beca personnel:	s 7(2)(a) - Privacy	**Contractors representative accompanying Beca personnel:**	s 7(2)(a) - Privacy

Health and Safety Observations:

- Access to works area is narrow and steep

Construction work in progress:

- Holes have been excavated

Observations:

- Hole at grid D closer to the water is only 600mm deep, which is less than the minimum requirement of 700mm
- Holes for the footings along the edge of the slope generally appear to meet the criteria specified on SE-2005 except item mentioned above
- Soil material under the top soil appeared to be very hard
- Steel reinforcing size, spacing and grade appeared to be generally in accordance with the structural drawings

Comments made to/by contractor's representative:

- Contractor noted that the hole that was only 600mm deep (along grid D) could not be dug any deeper due to there being rock below. Contractor proposed to chemset reinforcing into the rock to mitigate lateral forces and therefore slips.
- Contractor noted that the soil material below the top soil was very hard and difficult to excavate
- Beca noted that subgrade testing was required as per note 3.0 on SE-2001 on the structural drawings.
- Beca noted that a construction methodology was required to be send to the engineer as per 1. on SE-2001

Follow-up actions required:

- Contractor to provide subgrade testing
- Contractor to provide construction methodology

Attachments:

Figure 1: Overview of Site

Figure 2: General Slope

Beca

Job N°: 4280807
Page N°: 3 of 3
Date: 2 November 2023
Beca Ref: 4280807-318756720-470

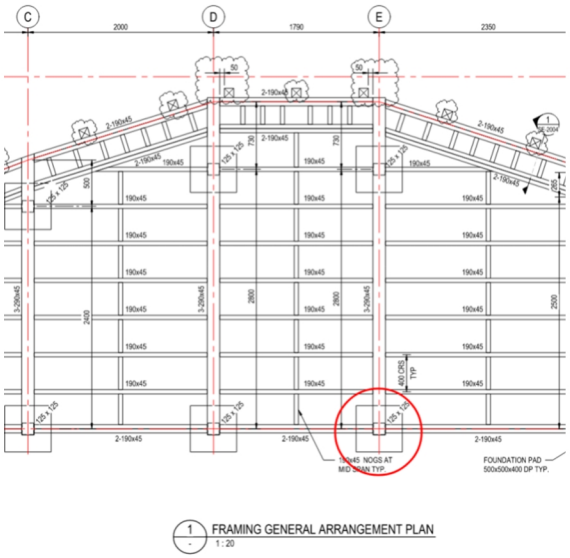


Figure 3: Hole with Boulders underneath

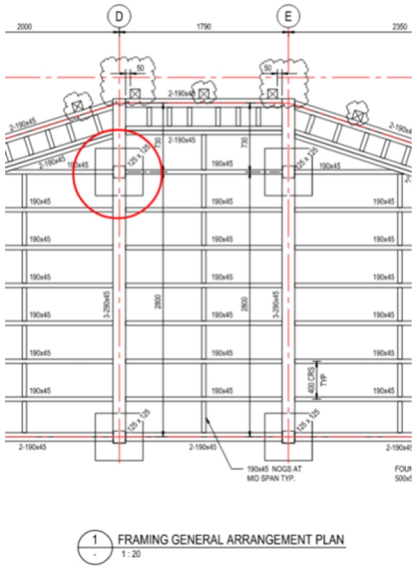


Figure 4: Hole only 600mm deep

Report prepared by:	s 7(2)(a) - Privacy	**Report reviewed by:**	s 7(2)(a) - Privacy

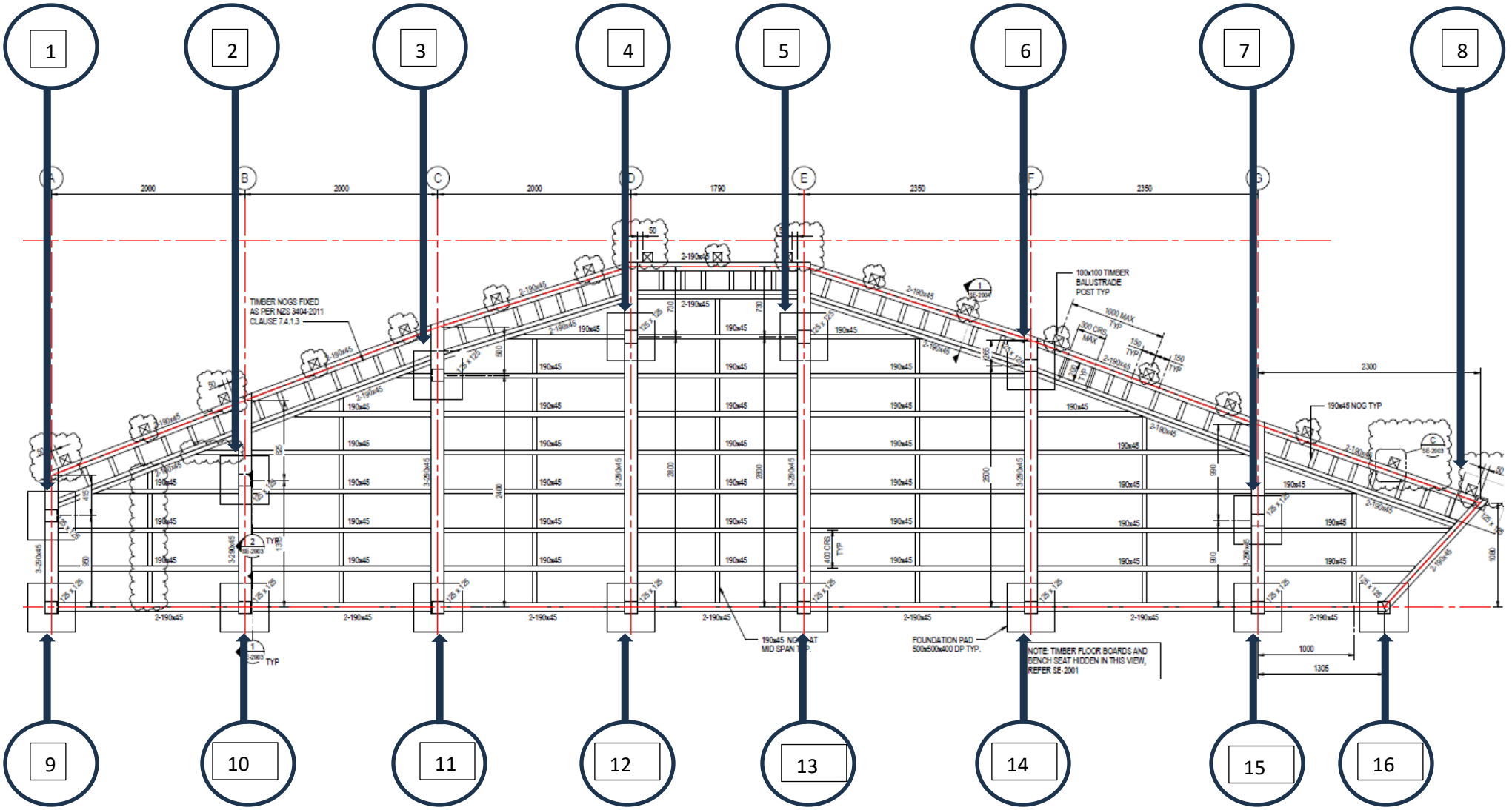
2

Attachment 2 – Scala penetrometer tests provided by contractor

	Bored Pile Installation Check Sheet							
Job No. & Name:	2398 Awaiti Viewing Platform							
Pile Diameter:	125 x 125 HS Piles							
Minimum Embedment:	Varies - 400mm & 700mm							
	Pile Record Details							
Check Item	**Pile Number** (write pile numbers in circles on next page)							
	P1	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**
Date pile excavated	2/11/23	2/11/23	2/11/23	2/11/23	2/11/23	2/11/23	2/11/23	2/11/23
Estimated depth to competent ground reached	300mm	250mm	250mm	250mm	250mm	250mm	300mm	300mm
Finish pile depth (below ground level)	700mm	700mm	700mm	700mm	700mm	700mm	700mm	700mm
Scala Penetrometer (blows per 100mm)	Refusal	Refusal	Refusal	Refusal	Refusal	Refusal	Refusal	Refusal
Scala Penetrometer (depth til refusal)	20mm	0-10mm	0-10mm	0-10mm	0-10mm	0-10mm	10-20mm	40mm
Minimum embedment reached?	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No
Reinforcing cage tied as per drawings?	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No
Reinforcing cage installed?	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No
Date pile poured								
	Other Notes/Observations: After competent grand, cango hammer used to excavate material (too hard for hand digging)							
Supervisor's Name:		Supervisor's Signature:						
Reviewer's Name:		Reviewer's Signature:						

	Bored Pile Installation Check Sheet							
	Pile Record Details							
Check Item	Pile Number (write pile numbers in circles on next page)							
	P9	P10	P11	P12	P13	P14	P15	P16
Date pile excavated	2/11/23	2/11/23	2/11/23	2/11/23	2/11/23	2/11/23	2/11/23	2/11/23
Estimated depth to competent ground reached	300mm	200mm	200mm	100mm	Surface rock	Surface rock	200mm	300mm
Finish pile depth (below ground level)	450mm	400mm	400mm	400mm	400mm	400mm	400mm	400mm
Scala Penetrometer (blows per 100mm)	Refusal	Refusal	Refusal	Refusal	Refusal	Refusal	Refusal	Refusal
Scala Penetrometer (depth til refusal)	20mm	30mm	20mm	0mm	0mm	0mm	20mm	30mm
Minimum embedment reached?	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No
Reinforcing cage tied as per drawings?	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No
Reinforcing cage installed?	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No	(Yes) / No
Date pile poured								
	Other Notes/Observations: Rocks throughout holes (P13 & P14). Broken out with cango hammer until embedment achieved							

Supervisor's Name:		Supervisor's Signature:		
Reviewer's Name:		Reviewer's Signature:		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2
3
4
5
6
7
8
A
B
C
D
E
F
G
2000
2000
2000
1790
2350
2350
TIMBER NOGS FIXED AS PER NZS 3404-2011 CLAUSE 7.4.1.3
100x100 TIMBER BALUSTRADE POST TYP
1000 MAX TYP
300 CRS MAX
150 TYP
150 TYP
2300
190x45 NOG TYP
190x45 NOG AT MID SPAN TYP
FOUNDATION PAD 500x500x400 DP TYP.
NOTE: TIMBER FLOOR BOARDS AND BENCH SEAT HIDDEN IN THIS VIEW, REFER SE-2001
1000
1305
9
10
11
12
13
14
15
16