GEOTECH TESTING PTY LTD ®
ABN 71 076 676 321

Job No: 9564/4
Our Ref: 9564/4-AA
27 November 2023

WEM Civil Pty Ltd
Suite 3.01, Irvine Place,
BELLA VISTA NSW 2153
Email: Lwhite@wem.com.au

Attention: Mr L White

Dear Sir

re: Stage 12 – Windsor & Boundary Roads, Box Hill
Site Classification Report

Please find herewith our site classification report for the proposed dwellings to be located at the above subdivision. The following one-hundred and thirty-two (132) are classified in this report:

Lot Numbers	Total
4701-4737	37
4741-4808	68
4811-4837	27
Total	**132**

This report contains information on sub-surface conditions encountered at the site, together with site classification of the proposed lots in accordance with Australian Standard AS2870-2011 “Residential slabs & footings”.

If you have any questions, please do not hesitate to contact the undersigned.

Yours faithfully
GEOTECH TESTING PTY LTD

JOE CHEN
Geotechnical Engineer

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1.0 INTRODUCTION

This report provides results of a site classification investigation for the proposed dwellings. The following one-hundred and thirty-two (132) are classified in this report:

Lot Numbers	Total
4701-4737	37
4741-4808	68
4811-4837	27
Total	**132**

Site classification in accordance with AS2870-2011 is only applicable for design of footing systems for a single dwelling, house, townhouse or similar structure that would be detached or separated by a party wall or common wall including buildings classified as Class 1 and Class 10a in the Building Code of Australia (BCA). AS2870 is not suitable for dwellings situated vertically above or below another dwelling. Therefore, a geotechnical investigation would be required for other dwellings to be classified in accordance with the BCA.

It is understood that the proposed dwellings are to be of brick veneer construction and wall loadings are expected to be in the range of 15kN/m to 50kN/m. The maximum working load (safe bearing pressure) would be in the order of 50kPa for ground supported floor slabs and 100kPa for strip and pad footings.

2.0 FIELD WORK

Field work for the investigation was carried out under the full-time supervision of a Geotechnical Engineer on 3 & 7 November 2023 and consisted of excavation of forty-seven (47) test pits (TP1 to TP47) to depths of the order of 1.5m, using an 8 tonne excavator. Test pits at shallow depths were terminated due to refusal on bedrock. The locations of the test pits are shown on the attached Drawing No 9564/4-AA1 in Appendix A. A summary of the field data obtained is presented in Appendix A.

3.0 SITE CONDITIONS

3.1 Surface Conditions

The site is of irregular shape located at the end of Mount Carmel Drive, The Hills of Carmel. Topography of the lots is relatively flat with gentle to mild slopes southbound ranging from <5º up to ≈30º. At the time of investigation, bulk earthworks and construction of internal roads were completed. The site is bound by medium to high residential lots to the south and west followed by open grass land and low-density residential lots to the north and east. Stockpiles across the lots consist of fill and drainage backfill. Site activities include ongoing machinery and laborious activities.

3.2 Sub-Surface Conditions

Sub-surface conditions encountered in the test pits are detailed in the attached Table A and summarised below in Table 1.

Table 1: Sub-Surface Conditions

Test Pit	Termination Depth (m)	Fill (m)
TP1	1.5	0.0-1.5
TP2	1.5	0.0-1.5
TP3	1.5	0.0-1.5
TP4	1.5	0.0-1.5
TP5	1.5	0.0-1.5
TP6	1.5	0.0-1.5
TP7	1.5	0.0-1.5
TP8	1.5	0.0-1.5
TP9	1.5	0.0-1.5
TP10	1.5	0.0-1.5
TP11	1.5	0.0-1.5
TP12	1.5	0.0-1.5
TP13	1.5	0.0-1.5
TP14	1.5	0.0-1.5
TP15	1.5	0.0-1.5
TP16	1.5	0.0-1.5
TP17	1.5	0.0-1.5
TP18	1.5	0.0-1.5
TP19	1.5	0.0-1.5
TP20	1.5	0.0-1.5
TP21	1.5	0.0-1.5
TP22	1.5	0.0-1.5
TP23	1.5	0.0-1.5
TP24	1.5	0.0-1.5
TP25	1.5	0.0-1.5
TP26	1.5	0.0-1.5
TP27	1.5	0.0-1.5
TP28	1.5	0.0-1.5
TP29	1.5	0.0-1.5
TP30	1.5	0.0-1.5
TP31	1.5	0.0-1.5
TP32	1.5	0.0-1.5
TP33	1.5	0.0-1.5
TP34	1.5	0.0-1.5
TP35	1.5	0.0-1.5
TP36	1.5	0.0-1.5
TP37	1.5	0.0-1.5
TP38	1.5	0.0-1.5
TP39	1.5	0.0-1.5

Test Pit	Termination Depth (m)	Fill (m)
TP40	1.5	0.0-1.5
TP41	1.5	0.0-1.5
TP42	1.5	0.0-1.5
TP43	1.5	0.0-1.5
TP44	1.5	0.0-1.5
TP45	1.5	0.0-1.5
TP46	1.5	0.0-1.5
TP47	1.5	0.0-1.5

NE: Not encountered to the termination depth

The test pit investigation revealed the following generalised sub-surface profile:

Fill	Gravelly Clay, medium plasticity, brown mottled red-grey, fine to coarse grained gravels Clayey Gravel, fine to coarse grained, fines medium plasticity clays, moist

Groundwater was not observed in the test pits during the short time that they remained open. It must be noted that fluctuations in the level of groundwater might occur due to variations in rainfall, temperature and/or other factors.

4.0 LABORATORY TESTING

A total of seven (7) disturbed samples were recovered from the site. This sample was tested to determine Atterberg Limits values. The tests were conducted as per relevant Australian Standards and the results are summarised below and detailed in the attached test certificates.

Table 2: Summary of Test Results

Test Pit	Depth (m)	Liquid Limit (%)	Plasticity Index (%)	Linear Shrinkage (%)
TP2	1.0-1.1	38	21	10.5
TP7	0.4-0.6	45	27	10.5
TP23	0.7-0.9	44	20	9.5
TP26	0.7-0.9	35	18	9.0
TP31	0.4-0.6	41	24	11.5
TP39	0.5-0.7	35	17	10.0
TP42	0.2-0.5	33	15	8.0

5.0 DISCUSSION & RECOMMENDATIONS

5.1 Assessment of Fill

Fill was encountered in several test pits excavated across the site. It should be noted that several field density tests were conducted by Geotech Testing Pty Ltd during the fill placement and the results are provided in our summary report (Our Ref: 9281/1-R12 dated 22 March 2023, 8810/17-AB dated 21 October 2019 and 9564/1-AA dated 12 December 2023). Based on our inspection of the fill during the investigation and the above field density tests results, it is our assessment that the fill is “Controlled Fill”.

5.2 Site Classification

Based on the field and laboratory results, the site classification to AS2870-2011 "Residential slabs & footings", for the proposed lots are summarised in Appendix B of this report.

It is recommended that footings for the proposed dwellings are founded on the same stratum, below any topsoil or deleterious material, to minimise the potential for differential movement.

The above recommendations are applicable to the lots at the date of conducting the investigation, being 3 & 7 November 2023, and are made based on the following assumptions:

1. The construction requirements of AS2870-2011 must be followed.
2. The recommendations for site maintenance set out in Appendix B of AS2870 are followed.
3. The performance expectations set out in Appendix C of AS2870 are acceptable.

It is recommended that house owners are made aware of the recommendations given by the CSIRO publication, "Guide to Home Owners on Foundation Maintenance and Footing Performance".

GEOTECH TESTING PTY LTD

APPENDIX A

TABLE A
SUMMARY OF TEST PITS

DRAWING NO 9564/4-AA1
(*Test Pit Location Plan*)

TABLE A

Job No: 9564/4
Our Ref: 9564/4-AA

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP1	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red grey, fine to coarse grained gravels, M<PL, well compacted
TP2	0.0-1.5	0.4-0.5 (DS) 0.8-1.0 (Atterberg) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red grey, fine to coarse grained gravels, M<PL, well compacted
TP3	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red grey, fine to coarse grained gravels, M<PL, well compacted
TP4	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red grey, fine to coarse grained gravels, M<PL, well compacted
TP5	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red grey, fine to coarse grained gravels, M<PL, well compacted
TP6	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red grey, fine to coarse grained gravels, M<PL, well compacted
TP7	0.0-1.5	0.4-0.5 (DS) 0.6-0.8 (Atterberg) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red grey, fine to coarse grained gravels, M<PL, well compacted
TP8	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Clayey Gravel, fine to coarse grained, fines medium plasticity clays, moist, well compacted
TP9	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Clayey Gravel, fine to coarse grained, fines medium plasticity clays, moist, well compacted
TP10	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Clayey Gravel, fine to coarse grained, fines medium plasticity clays, moist, well compacted
TP11	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Clayey Gravel, fine to coarse grained, fines medium plasticity clays, moist, well compacted
TP12	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Clayey Gravel, fine to coarse grained, fines medium plasticity clays, moist, well compacted

TABLE A

Job No: 9564/4
Our Ref: 9564/4-AA

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP13	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Clayey Gravel, fine to coarse grained, fines medium plasticity clays, moist, well compacted
TP14	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse gravel, subangular gravel, M<PL, well compacted
TP15	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse gravel, subangular gravel, M<PL, well compacted
TP16	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse gravel, subangular gravel, M<PL, well compacted
TP17	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse gravel, subangular gravel, M<PL, well compacted
TP18	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse gravel, subangular gravel, M<PL, well compacted
TP19	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse gravel, subangular gravel, M<PL, well compacted
TP20	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse gravel, subangular gravel, M<PL, well compacted
TP21	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse gravel, subangular gravel, M<PL, well compacted
TP22	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse gravel, subangular gravel, M<PL, well compacted
TP23	0.0-1.5	0.4-0.5 (DS) 0.7-0.9 (Atterberg) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse gravel, subangular gravel, M<PL, well compacted

TABLE A

Job No: 9564/4
Our Ref: 9564/4-AA

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP24	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse gravel, subangular gravel, M<PL, well compacted
TP25	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse gravel, subangular gravel, M<PL, well compacted, trace sand
TP26	0.0-1.5	0.4-0.5 (DS) 0.7-0.9 (Atterberg) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP27	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP28	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP29	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP30	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP31	0.0-1.5	0.4-0.5 (DS) 0.7-0.9 (Atterberg) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP32	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP33	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse subangular gravel, trace sand, M<PL, well compacted

TABLE A

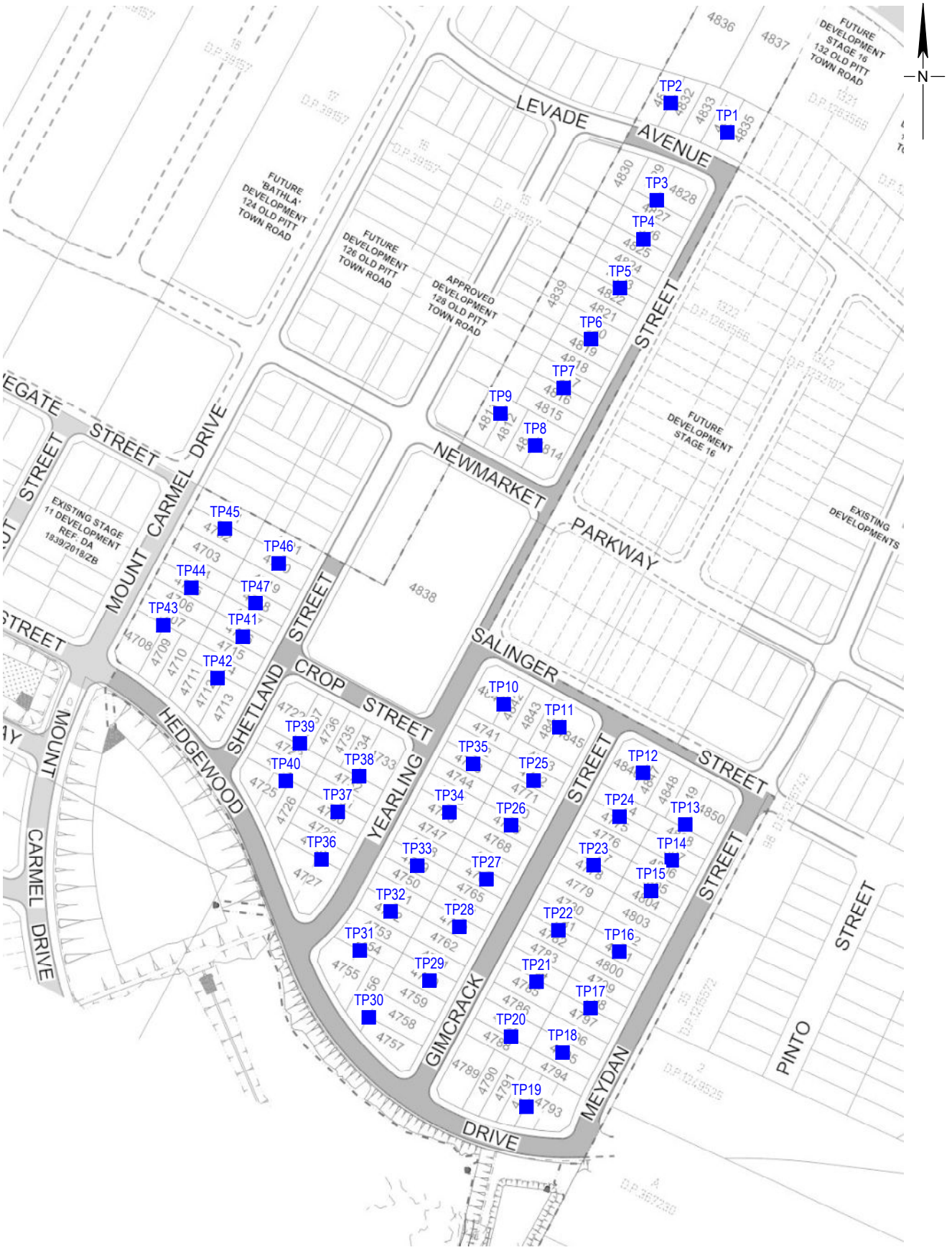
Job No: 9564/4
Our Ref: 9564/4-AA

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP34	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP35	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP36	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red and grey, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP37	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red and grey, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP38	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red and grey, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP39	0.0-1.5	0.4-0.5 (DS) 0.7-0.9 (Atterberg) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red and grey, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP40	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red and grey, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP41	0.0-1.5	0.2-0.4 (U_{50}) 0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red and grey, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP42	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red and grey, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP43	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red and grey, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP44	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red and grey, fine to coarse subangular gravel, trace sand, M<PL, well compacted

TABLE A

Job No: 9564/4
Our Ref: 9564/4-AA

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP45	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red and grey, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP46	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red and grey, fine to coarse subangular gravel, trace sand, M<PL, well compacted
TP47	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Gravelly Clay, medium plasticity, brown mottled red and grey, fine to coarse subangular gravel, trace sand, M<PL, well compacted



LEGEND

Test Pit

0 30 60 90 120 150m

Scale 1:3000

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Western Earthmoving Pty Ltd
The Hills of Carmel, Stage 12
Windsor Road and Boundary Road
Box Hil

Test Pit Locations

Drawing No: 9564/4-AA1
Job No: 9564/4
Drawn By: MH
Date: 8 November 2023
Checked By: JC

File No: 9564-4
Layers: 0, AA1

APPENDIX B

SUMMARY OF SITE CLASSIFICATIONS

Job No: 9564/4
Our Ref: 9564/4-AA

TABLE B
SUMMARY OF SITE CLASSIFICATIONS
Stage 12 - Windsor Road and Boundary Road, Box Hill

Lot	Site Classification	Lot	Site Classification	Lot	Site Classification
4701	M	4748	M	4792	M
4702	M	4749	M	4793	M
4703	M	4750	M	4794	M
4704	M	4751	M	4795	M
4705	M	4752	M	4796	M
4706	M	4753	M	4797	M
4707	M	4754	M	4798	M
4708	M	4755	M	4799	M
4709	M	4756	M	4800	M
4710	M	4757	M	4801	M
4711	M	4758	M	4802	M
4712	M	4759	M	4803	M
4713	M	4760	M	4804	M
4714	M	4761	M	4805	M
4715	M	4762	M	4806	M
4716	M	4763	M	4807	M
4717	M	4764	M	4808	M
4718	M	4765	M	4811	M
4719	M	4766	M	4812	M
4720	M	4767	M	4813	M
4721	M	4768	M	4814	M
4722	M	4769	M	4815	H1
4723	M	4770	M	4816	H1
4724	M	4771	M	4817	H1
4725	M	4772	M	4818	H1
4726	M	4773	M	4819	M
4727	M	4774	M	4820	M
4728	M	4775	M	4821	M
4729	M	4776	M	4822	M
4730	M	4777	H1	4823	M
4731	M	4778	H1	4824	M
4732	M	4779	M	4825	M
4733	M	4780	M	4826	M
4734	M	4781	M	4827	M

WEM Civil Pty Ltd
JC.sf/27.11.2023

Job No: 9564/4
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Lot	Site Classification	Lot	Site Classification	Lot	Site Classification
4735	M	4782	M	4828	M
4736	M	4783	M	4829	M
4737	M	4784	M	4830	M
4741	M	4785	M	4831	M
4742	M	4786	M	4832	M
4743	M	4787	M	4833	M
4744	M	4788	M	4834	M
4745	M	4789	M	4835	M
4746	M	4790	M	4836	M
4747	M	4791	M	4837	M

S: Slightly Reactive, Free Surface Movement: 0-20mm
M: Moderately Reactive, Free Surface Movement: 20-40mm
H1: Highly Reactive, Free Surface Movement: 40-60mm

WEM Civil Pty Ltd
JC.sf/27.11.2023

APPENDIX C

LABORATORY TEST RESULTS

GEOTECH TESTING PTY LTD ®
ABN 71 076 676 321

TEST RESULTS - ATTERBERG LIMITS
Test Procedure AS1289 3.1.1, 3.2.1, 3.3.1, 3.4.1

WEM CIVIL
SUITE 3.01 7-9 IRVINE PLACE
BELLA VISTA NSW 2153

Laboratory: Penrith
Job No: 9564/4

PROJECT: SITE CLASSIFICATION
THE HILLS OF CARMEL, STAGE 12 - WINDSOR & BOUNDARY ROADS, BOX HILL

Date Tested: 13/11/2023 Tested By: BG
Checked By: AK

Sample Identification	Test Pit 2	Test Pit 7	Test Pit 23
Laboratory Number	9564/4-1	9564/4-2	9564/4-3
Depth (m)	1.0 - 1.1	0.4 - 0.6	0.7 - 0.9
Test Description			
Liquid Limit (W_L)	38%	45%	44%
Plastic Limit (W_P)	17%	18%	24%
Plastic Index (I_P)	21%	27%	20%
Linear Shrinkage (LS)	10.5%	10.5%	9.5%
Mould Length (mm)	127	125	127
Sample History	Oven Dried Dry Sieved	Oven Dried Dry Sieved	Oven Dried Dry Sieved
Material Description	FILL: Silty Clay, medium plasticity, red-brown & grey, trace of fine to medium gravel	FILL: Gravelly Clay, medium plasticity, red-brown & grey	FILL: Gravelly Clay, medium plasticity, red-brown & grey

Form No R004 Version 13 - 07/21 - Issued by ER

A Kench

Report Date
15/11/2023

NATA

Accredited for compliance with ISO/IEC 17025 - Testing.

Nata Accreditation Number 2734
Corporate Site Number 2727

Approved Signatory

34 Borec Road, Penrith NSW 2750
Telephone: (02) 4722 2744

Unit 4, 18-20 Whyalla Place, Prestons NSW 2170
Telephone: (02) 9607 6111

email: info@geotech.com.au www.geotech.com.au

GEOTECH TESTING PTY LTD ®
ABN 71 076 676 321

TEST RESULTS - ATTERBERG LIMITS
Test Procedure AS1289 3.1.1, 3.2.1, 3.3.1, 3.4.1

WEM CIVIL
SUITE 3.01 7-9 IRVINE PLACE
BELLA VISTA NSW 2153

Laboratory: Penrith
Job No: 9564/4

PROJECT: SITE CLASSIFICATION
THE HILLS OF CARMEL, STAGE 12 - WINDSOR & BOUNDARY ROADS, BOX HILL

Date Tested: 13/11/2023 Tested By: BG
Checked By: AK

Sample Identification	Test Pit 26	Test Pit 31	Test Pit 39
Laboratory Number	9546/4-4	9564/4-5	9564/4-6
Depth (m)	0.7 - 0.9	0.4 - 0.6	0.5 - 0.7
Test Description			
Liquid Limit (W_L)	35%	41%	35%
Plastic Limit (W_P)	17%	17%	18%
Plastic Index (I_P)	18%	24%	17%
Linear Shrinkage (LS)	9.0%	11.5%	10.0%
Mould Length (mm)	127	125	127
Sample History	Oven Dried Dry Sieved	Oven Dried Dry Sieved	Oven Dried Dry Sieved
Material Description	FILL: Gravelly Clay, medium plasticity, red-brown	FILL: Gravelly Clay, medium plasticity, red-brown	FILL: Gravelly Clay, medium plasticity, red-brown & grey

Form No R004 Version 13 - 07/21 - Issued by ER

A Kench

Report Date
15/11/2023

NATA

Accredited for compliance with ISO/IEC 17025 - Testing.

Nata Accreditation Number 2734
Corporate Site Number 2727

Approved Signatory

34 Borec Road, Penrith NSW 2750
Telephone: (02) 4722 2744

Unit 4, 18-20 Whyalla Place, Prestons NSW 2170
Telephone: (02) 9607 6111

email: info@geotech.com.au www.geotech.com.au

GEOTECH TESTING PTY LTD ®
ABN 71 076 676 321

TEST RESULTS - ATTERBERG LIMITS
Test Procedure AS1289 3.1.1, 3.2.1, 3.3.1, 3.4.1

WEM CIVIL
SUITE 3.01 7-9 IRVINE PLACE
BELLA VISTA NSW 2153

Laboratory: Penrith
Job No: 9564/4

PROJECT: SITE CLASSIFICATION
THE HILLS OF CARMEL, STAGE 12 - WINDSOR & BOUNDARY ROADS, BOX HILL

Date Tested: 13/11/2023

Tested By: BG
Checked By: AK

Sample Identification	Test Pit 42
Laboratory Number	9564/4-7
Depth (m)	0.2 - 0.5
Test Description	
Liquid Limit (W_L)	33%
Plastic Limit (W_P)	18%
Plastic Index (I_P)	15%
Linear Shrinkage (LS)	8.0%
Mould Length (mm)	127
Sample History	Oven Dried Dry Sieved
Material Description	FILL: Gravelly Clay, low ro medium plasticity, red-brown & grey

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A Kench

Report Date
15/11/2023

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