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Site Classification Report

CLIENT: TROY RAULSTON HOMES – WAGGA WAGGA, NSW

LOCATION: No. 29 BOLTON STREET, JUNEE, NSW

REGISTRATION No: SC22-285

PROJECT DESCRIPTION: PROPOSED RESIDENTIAL DWELLING

DATE REQUESTED: 25 OCTOBER 2022

DATE OF INVESTIGATION: 16 NOVEMBER 2022

DATE REPORTED: 6 DECEMBER 2022

ARTL - NATA ACCREDITED LABORATORIES

At your request, a subsurface exploration was performed at the above location to assess the nature of the underlying soils in order to classify the site in accordance with AS2870 - 2011 "Residential Slab and Footings". The following classification is derived from information gained in regard to the history of the site, the description of the natural material and the amount of swell and shrinkage the natural soils experience with variations of water content.

Our Geotechnical staff excavated two boreholes (BH1 and BH2 to 3.0m) using a powered drilling rig at the locations shown in the attached sketch. Disturbed samples were taken at various depths to represent various strata. The soil and groundwater conditions in these boreholes were assessed and the boreholes were logged in the field. Visual descriptions of moisture, plasticity and strength were also noted. The soil samples were tested at our NATA accredited laboratory in Wagga Wagga.

A Dynamic Cone Penetrometer (DCP) test was performed at the location of each borehole to assess the strength of the underlying material. The borehole logs with test results and DCP test reports are attached to this report.



SITE CONDITIONS, CONCLUSIONS AND RECOMMENDATIONS

The site of the proposed construction is on the western side of the road. The site has a downward slope from west to east at approximately 1V:20H.

The borehole investigation revealed that the site is underlain by topsoil to 0.1m overlying low plasticity sandy silt to 0.4m in BH1 and 0.3m in BH2 which in turn is underlain by natural alluvial materials comprising various low, low to medium and medium plasticity silty clays and sandy silty clays extending to the borehole termination depth at 3.0m in BH1 and BH2. The moisture condition of the underlying material was generally greater than plastic limit in the upper profile decreasing to less than plastic limit in the lower profile at the time of the investigation. The underlying clays are considered "poorly drained" which may result in significant volume changes during the wet and dry climatic cycles. Seepage was encountered from 0.1m to 0.7m in BH1 and from 0.1m to 0.5m in BH2 during the course of drilling, however it should be noted that variations to the water table level could fluctuate with changes to the season, temperature and rainfall.

The DCP test results in BH1 (DCP1) indicate the underlying natural silt and clay-based material (below topsoil) to be very soft consistency to 0.7m then increasing to stiff and stiff to very consistency with depth throughout the tested profile in BH1 at the time of the investigation.

The DCP test results in BH2 (DCP2) indicate the underlying natural silt and clay-based material (below topsoil) to be very soft and soft consistency to 0.5m, firm consistency to 0.7m, then increasing to stiff and stiff to very consistency with depth throughout the tested profile in BH2 at the time of the investigation.

Based on the DCP test results obtained during the field investigation, the site shall be classified as **“P-Problem site”** in accordance with the Australian Standard AS 2870. We recommend that all the footings shall be designed similar to those as recommend in the Standard for “Class P” particularly where the silt and clay-based material is assessed as soft and very soft consistency (refer to attached borehole logs). However, if the “unsuitable” soft and very soft consistency silt and clay-based material is removed **to a minimum depth of 0.7m below the finished surface level** and replaced with approved material or excavated material (without fill/topsoil) and placed as **“structural fill”** or all the footings (i.e edge beams internal beams and load support thickenings) are founded on the **stiff consistency (or better) natural clay-based** material through “unsuitable” material, then **“Class “M-D” – Moderately reactive deep drying”** classification may be adopted.

The footing shall be founded on the natural **orange yellow brown sandy silty clay at or below 0.75m** from the existing surface (refer borehole logs), for which an allowable bearing capacity of 100kPa may be adopted, provided proper drainage measures are incorporated in the design, during and after the construction.

Alternatively, **“Class “M-D” – Moderately reactive deep drying”** classification may be adopted if the slab is fully suspended on a pier footing system. **The pier footing system** shall be founded on the **natural clay-based material at or below 1.5m** from the existing surface (refer borehole logs) for which an allowable bearing capacity of 150kPa and allowable side adhesion of 15kPa may be adopted **provided the slab is fully suspended on the pier footing system**. The side adhesion within uncontrolled fill and the top 1.0m of the natural material should be ignored.

If any additional fill placement is required on site during the site preparation, it is highly recommended to remove the existing topsoil, fill and unsuitable material, if any, and place granular fill comprising mainly sand and well graded gravel, but caution shall be exercised not to select a ‘raw’ or non-plastic material that may induce erosion. Clay soils are subject to saturation and shrink/swell problems. The fill shall be placed in accordance with Clause 6.4.1 & 6.4.2 of AS2870, or otherwise the site classification shall be reviewed.

The structural fill is to be prepared in such a way that it achieves 95% of Standard Maximum Dry Density in every 150mm thick compacted layer. The placed fill shall be certified by a relevant NATA accredited testing laboratory for which a safe allowable bearing pressure of 100kPa may be adopted, provided proper drainage measures are incorporated in the design, during and after the construction.

Yours Faithfully,



Peter Forbes-Taber
Geotechnical Engineer

GENERAL COMMENT

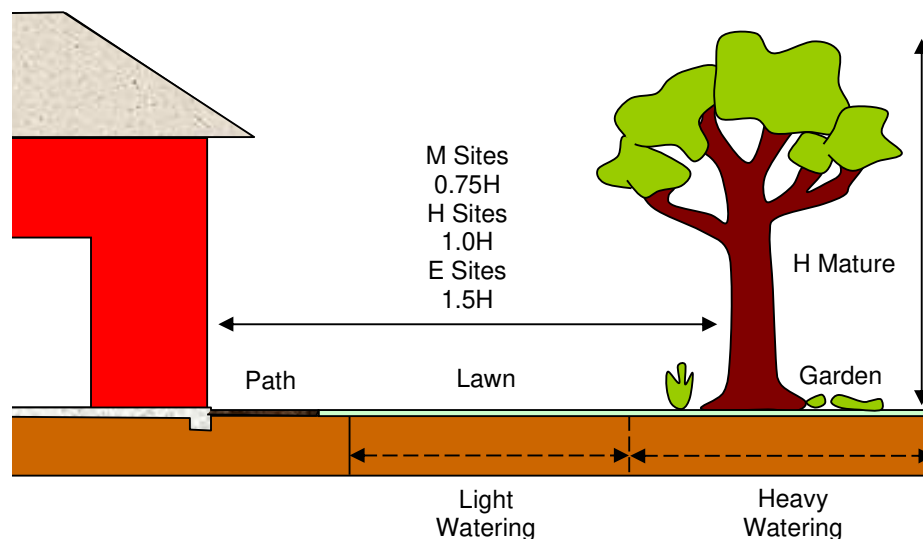
GARDENS AND TREES

Just as the building of a house changes the moisture conditions of the soil, so does the planting and establishment of a garden. The watering of the gardens increases moisture in the soil which can cause it to swell. Plants also draw moisture out of the soil, especially in long dry spells, causing the soil to shrink.

To avoid excessive moisture fluctuations around the home it is necessary to plan the garden so that only lightly watered areas such as lawns and small garden beds be located in close proximity to the house. Garden beds containing larger shrubs and trees should be kept well away from the building. Heavily watering of gardens near the house should be avoided, although uniform consistent watering of the gardens can be beneficial to prevent damage during long dry periods. Australian native plants generally require less water than exotic varieties. In any case, it is recommended to obtain information about the species to be planted in the garden prior to establishing the area.

If trees exist on site, it is highly recommended to site the proposed residential dwelling away from these trees at a distance equivalent to at least 75% (for Class M sites), 100% (for Class H sites) and 150% (for Class E sites) of the mature height of the tree. If the tree is to be removed, it is highly recommended to remove the entire tree including root system and allow the ground to achieve equilibrium moisture condition prior to construction. To assist with achieving equilibrium moisture content, the material used to backfill the removed tree site should be similar to the surrounding soil. If any trees are to be retained and the dwelling is to be built within the distance equivalent to 75% (for Class M sites), 100% (for Class H sites) and 150% (for Class E sites) of the mature height of the tree, then the footing system shall be designed for “**Class P – Problem site**” classification.

There are no recommendations within the standard for Class A and Class S sites for trees. To ensure that trees do not have a detrimental effect on the underlying materials of the dwelling it is recommended to take care when designing gardens for all soil classifications.





FOUNDATION EXCAVATION

The foundation excavation at times may expose soft or heaving areas at the base of the footing construction particularly if they are excavated after prolonged periods of rainfall. If such areas are encountered within the footing excavation, then such areas shall be excavated and treated before pouring the concrete. It is highly recommended to incorporate proper drainage measures around the perimeter of the building to ensure surface run-off does not ingress into the founding material.



RECOMMENDED FOUNDATION MATERIAL

Soil layer variations are common; we have therefore provided a description of the “Recommended foundation material” as a guide to the builder as to the correct foundation depths outside our test sites. In all cases the foundation soil chosen should have a similar consistency and strength to that recommended but need not be of the same type. The depth of the recommended foundation material may vary outside the test locations if the site is excavated or filled in any way after the date of our investigation. It is often difficult to distinguish fill from natural ground during investigation. If any significant variation from the borehole logs is noted during footing excavation i.e. 200mm or more, Aitken Rowe Testing Laboratories Pty Ltd should be consulted. Some allowances should be made for the removal of topsoil, organic matter, roots etc, which may be found in small, localised areas in the footing trenches. Also the effect of past and future trees should be considered in the selection of a design value for differential movement.



SITE ESTABLISHMENT

It is important to establish the site as soon as possible around the home as this will assist in stabilising the moisture content in the surrounding soil. The majority of soils expand (increase in volume) when wet, and shrink (decrease in volume) again when they dry out. The change in moisture and volume of soil can cause movement sufficient to damage the home. The more swelling and shrinkage the particular soil types on a site are likely to experience from changing moisture content, the more reactive that site will be.

By quickly completing the stormwater drainage and paving around the home the moisture content in the vicinity of the home can be partially stabilised. With careful planting of trees, shrubs and garden beds and well planned watering, the expected soil movement and risk of damage to the home can be minimised.



SITE DRAINAGE

When initially drawing a plan it is recommended to include the general layout of the site and garden areas. This enables the required levels to be established and ensures that adequate drainage is provided to all areas. This site drainage includes roof stormwater and ground water that may accumulate around the site and result in a change of soil conditions that could cause damage to the

building. Retaining walls generally require drainage provisions to be made around and behind the wall. These drains need to be co-ordinated with the total drainage system on the site. Paved areas also require adequate provision for stormwater runoff and should be graded to collection points that are both accessible for cleaning and connected to the stormwater system. All drains should be designed to prevent surface and subsurface water draining towards the house.

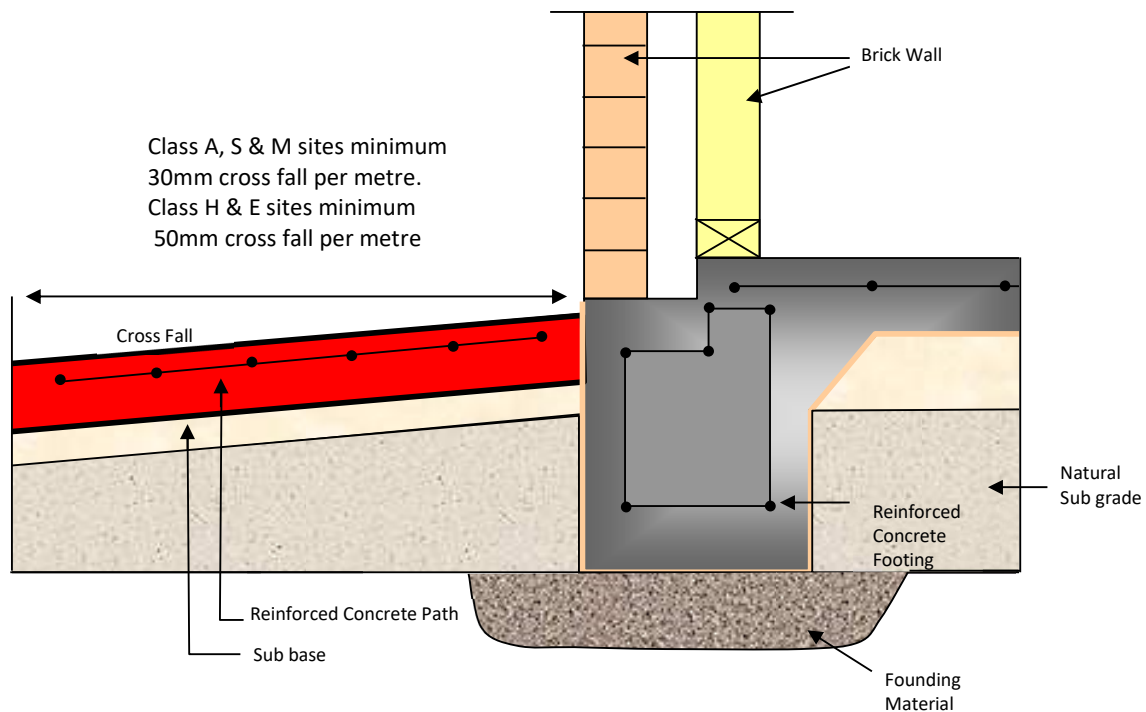
PAVING

The finished ground level (soil) around the home should be graded away from the house footing with a minimum fall of 50mm over the first metre. Any fill that has been placed during construction should also have the same fall and be well compacted.

Paving provides an excellent “buffer zone” around the house that assists in reducing fluctuations in the moisture conditions adjacent to the footings. If possible this paving should extend outwards from the building line a minimum of 900mm or more for highly reactive soils. It is essential that paving has the right crossfall for the expected reactivity (ground movement) of the site and all surface water is adequately drained. Care needs to be taken if laying pavements in the summer to ensure the crossfalls will not be reduced due to soils swelling in the winter.

If it is not possible to construct paving immediately, plastic sheeting with gravel spread on top provides a practical temporary alternative to protect the home until concrete paths can be placed.

For Class A, S, M sites, a minimum 30mm cross fall per metre is advised. For Class H and E sites, a minimum 50mm cross fall per metre is advised.





DEFINITIONS OF SITE CLASSES

- A** Most sand or rock sites with little or no ground movement from moisture changes.
- S** Slightly reactive clay sites with only slight ground movement from moisture changes.
- M** Moderately reactive clay or silt sites which can experience moderate ground movement from moisture changes.
- M-D** Moderately reactive clay or silt sites with deep moisture changes.
- H1** Highly reactive clay sites, which can experience high ground movement from moisture changes.
- H2** Highly reactive clay sites, which can experience high ground movement from moisture changes.
- H1-D** Highly reactive clay sites with deep moisture changes.
- H2-D** Highly reactive clay sites with deep moisture changes.
- E** Extremely reactive sites, which can experience extreme ground movement from moisture changes.
- E-D** Extremely reactive sites with deep moisture changes.
- P** Sites which include “uncontrolled” fill; soft soils, such as soft clay or silt or loose sands; landslip; mine subsidence; collapsing soils; soils subject to erosion; reactive sites subject to abnormal moisture conditions or sites with large trees adjacent to the footings or sites which cannot be classified otherwise.



MAINTENANCE

As it is important for the homeowner to maintain the building, it is also important to maintain the site around the home. The primary objective of the site and house footing maintenance is to prevent the soil from becoming too wet or too dry. By keeping the moisture content of the soil under and adjacent to the footing reasonably constant, the potential for the soil to experience significant movement that may damage the building will be limited.

Good site establishment and management is a vital part of the maintenance and protection of the home. Careful planning and detailing of the site around the concrete footing will protect your investment in the home and provide a low maintenance concrete footing for many years.

ADDENDUM



LIMITS OF INVESTIGATION

The recommendations made in this report are based on the assumption that the test results are representative of the overall subsurface conditions. However, it should be noted that even under optimum circumstances, actual conditions in some parts of the building site may differ from those said to exist, because no geotechnical engineer, no matter how qualified, and no subsurface exploration program, no matter how comprehensive, can reveal all that is hidden by earth, rock and time. Because the investigation procedure generally includes sampling from either one, two or three boreholes, it may not be possible to conclusively establish the presence or extent the condition of the underlying soil and rock over the whole block until site work commences for the construction.

The client should also be aware that our recommendations refer only to our test site locations and the ground level at the time of testing.

The recommendations in this report are based on the following: -

- a) The information gained from our investigation.
- b) The present "state of the art" in testing and design.
- c) The building type and site treatment conveyed to us by the client.
- d) Historical Information

Should the client or their agent have omitted to supply us with the correct relevant information, or make significant changes to the building type and/or building envelope, our report may not take responsibility for any consequences and we reserve the right to make an additional charge if more testing is necessary.

Notwithstanding the recommendations made in this report, we also recommend that whenever footings are close to any excavations or easements, that consideration should be given to deepening the footings.

Unless otherwise stated in our commission, any dimensions or slope direction and magnitude should not be used for any building costing calculations and/or positioning. Any sketch supplied should be considered as only an approximate pictorial evidence of our work.



ADDITIONAL INFORMATION

Refer also to the CSIRO Information Sheet: - BTF18 "Foundation Maintenance and Footing Performance: A Home Owner's Guide, which can be accessed through <http://www.publish.csiro.au/pid/7076.htm>.

SITE PLAN



NOT DRAWN TO SCALE

AITKEN ROWE TESTING LABORATORIES PTY LTD						Borehole No.: 1 Sheet No.: 1 of 1			
Ground Level: Existing Method: Auger Drilling with TC Bit						Date: 16/11/2022 GPS N: 6141590 E: 553548			
USCS Symbol	Description	Depth (m)	Moisture Condition	Consistency/Rel. Density	Sample		Lab. Test L.S % -2.36mm	Remarks & Field Records	
					Type	No.			
ML	TOPSOIL: Sandy SILT; low plasticity, fine to coarse sand, trace gravel, brown		MC>PL	VS				NATURAL Seepage @ 0.1m to 0.7m End of seepage @ 0.7m	
ML	Sandy SILT; low plasticity, fine to coarse sand, trace gravel, yellow brown				D	1A	3.0		
CL	Sandy Silty CLAY; low plasticity, fine to coarse sand, with fine to medium gravel, yellow brown	0.5			D	1B	5.0		
CL-CI	Sandy Silty CLAY; low to medium plasticity, fine to coarse sand, with fine to medium gravel, orange yellow brown	1.0			St. St.-VSt.	D	1C		8.0
CL-CI	Sandy Silty CLAY; low to medium plasticity, fine to coarse sand, with fine to medium gravel, mottled orange yellow brown	1.5				D	1D		8.5
CI	Silty CLAY; medium plasticity, trace sand, trace gravel, grey yellow brown	2.0	MC<PL	VSt.					
		2.5			D	1E	11.0		
		3.0							
	End of Borehole (BH1) @ 3.0m	3.5							
		4.0							
Registration No.: SC22-285 Location: 29 Bolton Street, Junee, NSW Client: Troy Raulston Homes - Wagga Wagga, NSW							Logged By: DRR Scale: As shown Seepage @ 0.1m to 0.7m		

AITKEN ROWE TESTING LABORATORIES PTY LTD

Borehole No.: 2

Sheet No.: 1 of 1

Ground Level: Existing

Date: 16/11/2022

Method: Auger Drilling with TC Bit

GPS N: 6141595

E: 553538

USCS Symbol	Description	Depth (m)	Moisture Condition	Consistency/ Rel. Density	Sample		Lab. Test	Remarks & Field Records
					Type	No.		
ML	TOPSOIL: Sandy SILT; low plasticity, fine to coarse sand, trace gravel, brown		MC>PL	VS			L.S % -2.36mm	<p>NATURAL</p> <p>Seepage @ 0.1m to 0.5m</p> <p>←</p> <p>End of seepage @ 0.5m</p>
ML	Sandy SILT; low plasticity, fine to coarse sand, trace gravel, yellow brown							
CL	Sandy Silty CLAY; low plasticity, fine to coarse sand, with fine to medium gravel, yellow brown	0.5						
CL-CI	Sandy Silty CLAY; low to medium plasticity, fine to coarse sand, with fine to medium gravel, orange yellow brown		MC>PL	F				
		1.0		St.				
		1.5		St.-VSt.				
		2.0						
		2.5						
		3.0						
CI	Silty CLAY; medium plasticity, trace sand, trace gravel, grey yellow brown		MC<PL	VSt.				
		2.5						
		3.0						
		3.5						
		4.0						
Registration No.: SC22-285 Location: 29 Bolton Street, Junee, NSW Client: Troy Raulston Homes - Wagga Wagga, NSW								Logged By: DRR Scale: As shown Seepage @ 0.1m to 0.5m



AITKEN ROWE TESTING LABORATORIES PTY LTD

LOG SYMBOLS

LOG COLUMN	SYMBOL	DEFINITION		
Groundwater Record		Standing water level. Time delay following completion of drilling may be shown.		
		Groundwater seepage into borehole or excavation noted during drilling or excavation.		
Samples	D	Disturbed bag sample taken between the depths indicated by lines.		
	U	Undisturbed 50mm diameter tube sample taken between the depths indicated by lines		
Field Tests	4, 7, 10 N=17	Standard Penetration Test (S.P.T.) performed between depths indicated by lines. Individual figures show blows per 150mm penetration driven by SPT hammer.		
	5	Dynamic Cone Penetration Test performed between depths indicated by lines. Individual figures show blows per 100mm penetration for 60 degree solid cone driven by 9 kg hammer.		
	7			
	3			
Moisture Condition (Silt or Clay based)	MC<PL	Moisture content estimated to be less than plastic limit.		
	MC=PL	Moisture content estimated to be approx. equal to plastic limit.		
	MC>PL	Moisture content estimated to be greater than plastic limit.		
Moisture Condition (Gravel or Sand based)	D	DRY – runs freely through fingers.		
	M	MOIST – does not run freely but no free water visible on soil surface.		
	W	WET – free water visible on soil surface.		
Consistency (Silt or Clay based)	VS	VERY SOFT – unconfined compressive strength less than 25kPa.		
	S	SOFT – unconfined compressive strength 25-50 kPa.		
	F	FIRM – unconfined compressive strength 50-100kPa.		
	St.	STIFF – unconfined compressive strength 100-200kPa.		
	VSt.	VERY STIFF – unconfined compressive strength 200-400kPa.		
	H	HARD – unconfined compressive strength greater than 400kPa.		
Relative Density (Gravel or Sand based)		Description	Density Index Range %	'N' Value Range Blows/300mm
	VL	VERY LOOSE	<15	0-5
	L	LOOSE	15-35	6-10
	MD	MEDIUM DENSE	35-65	11-30
	D	DENSE	65-85	31-60
	VD	VERY DENSE	>85	>60
Hand Penetrometer Readings	300 250 280	Numbers indicate individual test results in kPa on representative undisturbed material.		
Laboratory Test	L.S. %	Linear Shrinkage (As per TfNSW Method T113)		
	M.C. %	Field Moisture Content (As per Australian Standard AS1289.2.1.1 or TfNSW Method T120)		
	Iss	Shrink-Swell Index (As per Australian Standard AS1289.7.1.1)		
Piezometer Construction	Fill		Piezometer	
		Bentonite		Solid Pipe
		Washed Fine Graded Gravel		Slotted Screen
Remarks	'V' bit	Hardened steel 'V' shaped bit.		
	'TC' bit	Tungsten Carbide wing bit.		

Aitken Rowe Testing Laboratories Pty Ltd

ARTL Wagga: 4/2 Riedell Street, Wagga Wagga NSW 2650

DYNAMIC CONE PENETROMETER REPORT

CLIENT: TROY RAULSTON HOMES - WAGGA WAGGA, NSW

PROJECT: SITE CLASSIFICATION ASSESSMENT

PROPOSED RESIDENTIAL DWELLING

LOCATION: No. 29 BOLTON STREET, JUNEE, NSW

SOIL DESCRIPTION: REFER TO BOREHOLE LOGS

PAGE: 1 OF: 2

DCP: 1/BH1

REGISTRATION NO: SC22-285

DATE OF TEST: 16/11/2022

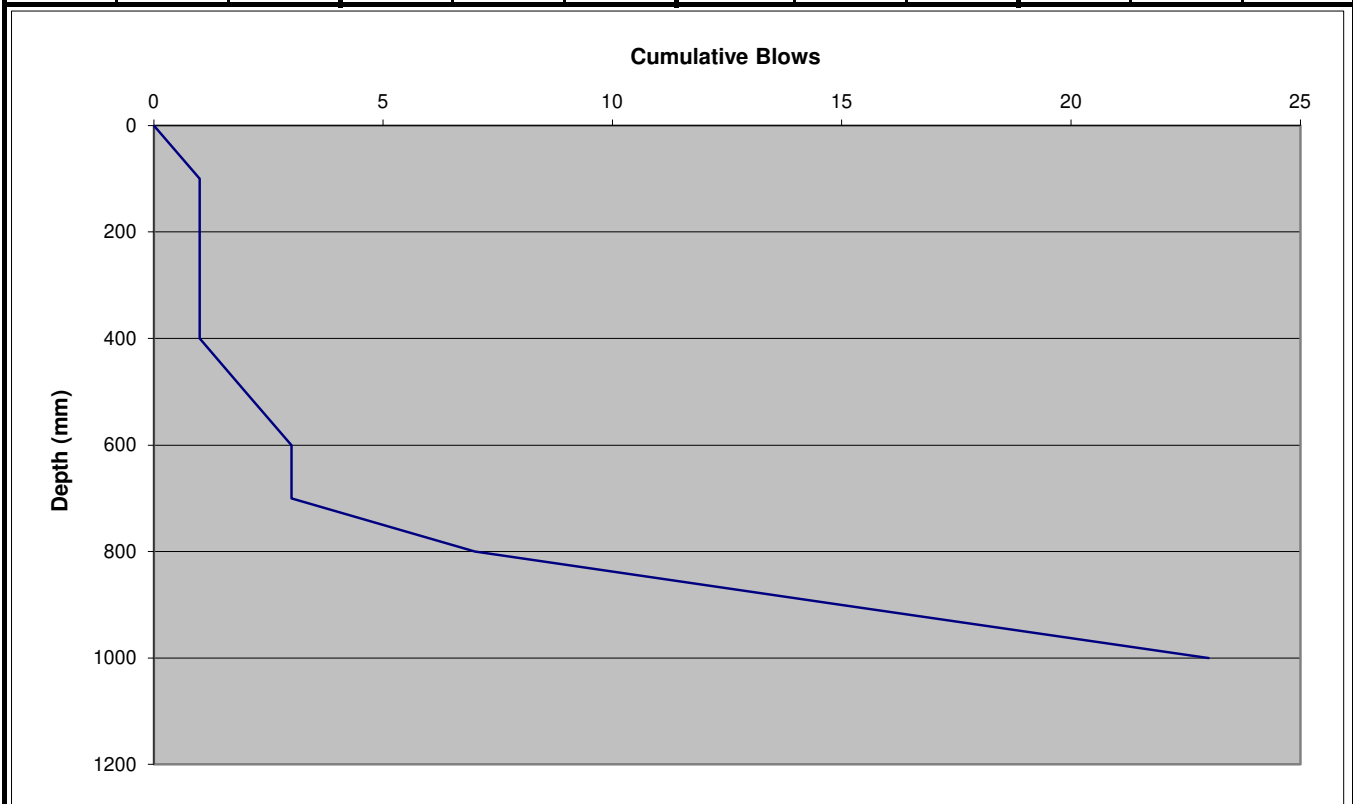
DEPTH BELOW ESL (mm): NIL

MOISTURE CONDITION: REFER TO LOGS

DEPTH OF GROUND WATER TABLE IF INTERSECTED: N/A

TEST METHOD: AS 1289.6.3.2

Depth(m)	Blows	Est. CBR	Depth(m)	Blows	Est. CBR	Depth(m)	Blows	Est. CBR	Depth(m)	Blows	Est. CBR
0.0 - 0.1	1	1	1.5 - 1.6	*	*	3.0 - 3.1	*	*	4.5 - 4.6	*	*
0.1 - 0.2			1.6 - 1.7	*	*	3.1 - 3.2	*	*	4.6 - 4.7	*	*
0.2 - 0.3			1.7 - 1.8	*	*	3.2 - 3.3	*	*	4.7 - 4.8	*	*
0.3 - 0.4			1.8 - 1.9	*	*	3.3 - 3.4	*	*	4.8 - 4.9	*	*
0.4 - 0.5	1	1	1.9 - 2.0	*	*	3.4 - 3.5	*	*	4.9 - 5.0	*	*
0.5 - 0.6	1	1	2.0 - 2.1	*	*	3.5 - 3.6	*	*	5.0 - 5.1	*	*
0.6 - 0.7			2.1 - 2.2	*	*	3.6 - 3.7	*	*	5.1 - 5.2	*	*
0.7 - 0.8	4	7	2.2 - 2.3	*	*	3.7 - 3.8	*	*	5.2 - 5.3	*	*
0.8 - 0.9	8	17	2.3 - 2.4	*	*	3.8 - 3.9	*	*	5.3 - 5.4	*	*
0.9 - 1.0	8	17	2.4 - 2.5	*	*	3.9 - 4.0	*	*	5.4 - 5.5	*	*
1.0 - 1.1	END	*	2.5 - 2.6	*	*	4.0 - 4.1	*	*	5.5 - 5.6	*	*
1.1 - 1.2	*	*	2.6 - 2.7	*	*	4.1 - 4.2	*	*	5.6 - 5.7	*	*
1.2 - 1.3	*	*	2.7 - 2.8	*	*	4.2 - 4.3	*	*	5.7 - 5.8	*	*
1.3 - 1.4	*	*	2.8 - 2.9	*	*	4.3 - 4.4	*	*	5.8 - 5.9	*	*
1.4 - 1.5	*	*	2.9 - 3.0	*	*	4.4 - 4.5	*	*	5.9 - 6.0	*	*



WORLD RECOGNISED
ACCREDITATION

Accredited for compliance with
ISO/IEC 17025 - Testing.

ACCREDITATION NUMBER:
4679

REMARKS:

APPROVED SIGNATORY: Peter Forbes-Taber

DATE: 6/12/2022

R13 V6 23/03/2022

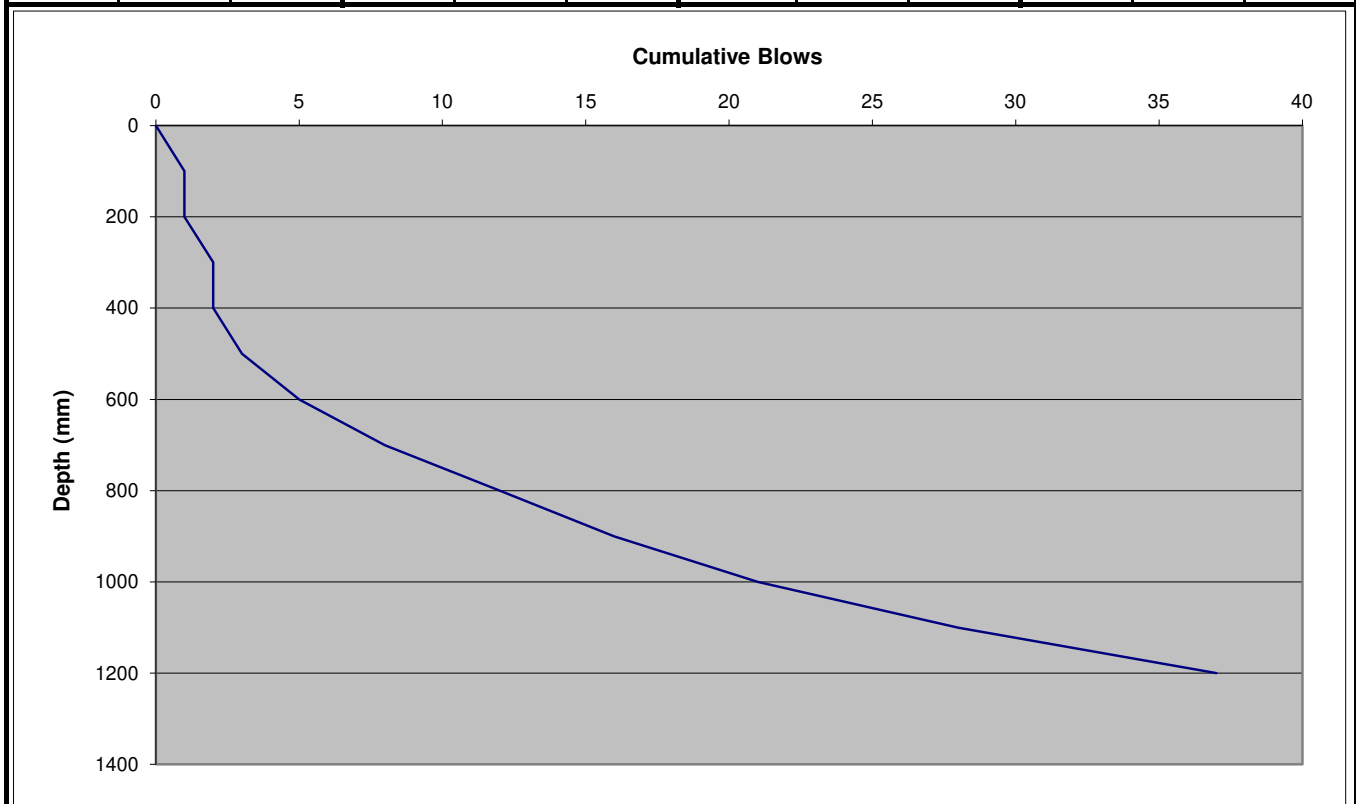
Aitken Rowe Testing Laboratories Pty Ltd

ARTL Wagga: 4/2 Riedell Street, Wagga Wagga NSW 2650

DYNAMIC CONE PENETROMETER REPORT

CLIENT: TROY RAULSTON HOMES - WAGGA WAGGA, NSW	PAGE: 2 OF: 2	DCP: 2/BH2
PROJECT: SITE CLASSIFICATION ASSESSMENT PROPOSED RESIDENTIAL DWELLING	REGISTRATION NO: SC22-285	
LOCATION: No. 29 BOLTON STREET, JUNEE, NSW	DATE OF TEST: 16/11/2022	
SOIL DESCRIPTION: REFER TO BOREHOLE LOGS	DEPTH BELOW ESL (mm): NIL	
DEPTH OF GROUND WATER TABLE IF INTERSECTED: N/A	MOISTURE CONDITION: REFER TO LOGS	
	TEST METHOD: AS 1289.6.3.2	

Depth(m)	Blows	Est. CBR	Depth(m)	Blows	Est. CBR	Depth(m)	Blows	Est. CBR	Depth(m)	Blows	Est. CBR
0.0 - 0.1	1	1	1.5 - 1.6	*	*	3.0 - 3.1	*	*	4.5 - 4.6	*	*
0.1 - 0.2			1.6 - 1.7	*	*	3.1 - 3.2	*	*	4.6 - 4.7	*	*
0.2 - 0.3			1.7 - 1.8	*	*	3.2 - 3.3	*	*	4.7 - 4.8	*	*
0.3 - 0.4	1	1	1.8 - 1.9	*	*	3.3 - 3.4	*	*	4.8 - 4.9	*	*
0.4 - 0.5			1.9 - 2.0	*	*	3.4 - 3.5	*	*	4.9 - 5.0	*	*
0.5 - 0.6			2.0 - 2.1	*	*	3.5 - 3.6	*	*	5.0 - 5.1	*	*
0.6 - 0.7	2	3	2.1 - 2.2	*	*	3.6 - 3.7	*	*	5.1 - 5.2	*	*
0.7 - 0.8	3	5	2.2 - 2.3	*	*	3.7 - 3.8	*	*	5.2 - 5.3	*	*
0.8 - 0.9	4	7	2.3 - 2.4	*	*	3.8 - 3.9	*	*	5.3 - 5.4	*	*
0.9 - 1.0	4	7	2.4 - 2.5	*	*	3.9 - 4.0	*	*	5.4 - 5.5	*	*
1.0 - 1.1	5	9	2.5 - 2.6	*	*	4.0 - 4.1	*	*	5.5 - 5.6	*	*
1.1 - 1.2	7	14	2.6 - 2.7	*	*	4.1 - 4.2	*	*	5.6 - 5.7	*	*
1.2 - 1.3	9	20	2.7 - 2.8	*	*	4.2 - 4.3	*	*	5.7 - 5.8	*	*
1.3 - 1.4	END	*	2.8 - 2.9	*	*	4.3 - 4.4	*	*	5.8 - 5.9	*	*
1.4 - 1.5	*	*	2.9 - 3.0	*	*	4.4 - 4.5	*	*	5.9 - 6.0	*	*



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REMARKS:

APPROVED SIGNATORY: Peter Forbes-Taber

DATE: 6/12/2022

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