

LEVEL ONE

Reference
No.: 2344-154

SURVEILLANCE

AND INSPECTION REPORT

*Carried Out
By*



PREPARED FOR: -

1152 TAYLORS DEVELOPMENT PTY LTD



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Appendix A Construction Drawings

Appendix B Daily Field Compaction Summary Results



Client Name: 1152 Taylors Development Pty Ltd

Project Name: Botania Estate Stage 4A

Date: 14th of March 2023

Author: Mr. Sam Loza

Reference No.: 2344-154

Revision: 0

Project Manager: Mr. Dom Modric

1. Introduction & Scope

At the request of 1152 Taylors Development Pty Ltd, Geotechnical Laboratories has carried out inspection and testing of the above-mentioned site from the 24th of January 2022 to the 1st of February 2022 where a residential development is being constructed. Inspection and testing of stripping, material quality and compaction control tests were carried out to comply with the requirements of AS 3798 Appendix B, Level 1.

The following documentation was submitted to Geotechnical Laboratories by 1152 Taylors Development Pty Ltd and was used to determine compliance of earthworks in conjunction with the requirements of AS 3798 – 2007.

(1). Road & Drainage Layout Plan Drawing Number 3070E-04A-111 (Rev. A).

General site works involved the placement of fill, using mainly on-site derived materials, to bring the fill construction regions to the required finished levels as indicated on the civil construction drawings.

2. Site Preparation

Site inspections were undertaken on the 24th of January 2022 confirming that selected areas to be filled were completely stripped of topsoil prior to filling. The topsoils were stockpiled around the site for later removal off-site.

Initial proof roll inspections were performed and subsequently throughout the project duration to ensure no significant soft areas were present prior to filling.

3. Fill Material

The fill material used was sourced from service trench excavations, road boxing and site cut areas.



The material is best described as a silty CLAY, brown, dark brown, slightly moist to moist, high plasticity with gravels and cobbles of a basalt origin.

The fill material is consistent with the naturally occurring soils for this region.

Source material was deemed a **Suitable Material** in accordance with guidelines set out in AS 3798 - 2007 Section 4.4.

4. Fill Construction Procedure

The following plant (but not always limited to) were engaged in the fill placement process:

- Highway trucks / dump trucks
- A watercart
- A sheepsfoot compactor (815)

The sheepsfoot compactor placed material in horizontal loose layers of approximately 250mm-300mm. The compactor also performed compaction of the fill operating in a criss-cross pattern where possible.

The moisture condition of the fill was closely monitored and moisture conditioning procedures were applied to bring the material closer to its Standard Optimum Moisture Content (AS 1289 5.7.1).

5. Compaction Control Testing

Compaction control testing was performed on-site using a Nuclear Densometer in accordance with AS 1289 5.8.1. Laboratory reference densities were determined from material sampled at each test site location using the Hilf Rapid Compaction Method in accordance with AS 1289 5.7.1.

A total of eight compaction tests were performed on the fill construction. Results are presented in Appendix B of this report.

6. Testing Frequency

Testing frequencies were in accordance with **AS 3798 - 2007 Table 8.1 for Type 1 - Large Scale Operations.**

Acceptance of fill layers for compaction was based on the requirements of **AS 3798 - 2007 Table 5.1 Item 1. Residential.**



As a result, the compliance criteria adopted by Geotechnical Laboratories was a hilt density ratio not less than 95 percent of the maximum hilt density value as determined by the Standard Hilt Rapid Compaction Method in accordance with AS 1289 5.7.1.

Test results indicate that the above-mentioned requirements have been successfully achieved.

No moisture criteria was specified.

7. Statement of Compliance

So far as can be determined, 1152 Taylors Development Pty Ltd has satisfactorily complied with the compaction and construction processes required for the structural filling of this site. As such, structural filling placed on this site by 1152 Taylors Development Pty Ltd from the 24th of January 2022 to the 1st of February 2022 can be categorised as CONTROLLED FILL in accordance with AS 2870-2011.

8. Limitations and Liability of this Report

This report has been produced for and remains the property of 1152 Taylors Development Pty Ltd.

The release of this report to a third party will only occur if Geotechnical Laboratories Pty Ltd has received, in writing, the authority to do so by our client.

Geotechnical Laboratories Pty Ltd will not engage in any third-party communication regarding this report.

Where information has been supplied by the client or third party, the assumption is made that this is correct. Geotechnical Laboratories Pty Ltd will not be held responsible for any inaccuracies supplied.

Test results and controlled fill compliance relates only to fill placed by 1152 Taylors Development Pty Ltd and for earthworks completed at the time of inspection and testing. Any previous or subsequent earthworks will require a separate evaluation.

For & on behalf of
Geotechnical Laboratories Pty Ltd.

Sam Loza
Laboratory Manager.



LEVEL ONE
SURVEILLANCE
AND INSPECTION REPORT

APPENDIX A



LEVEL ONE
SURVEILLANCE
AND INSPECTION REPORT

APPENDIX B



GEOTECHNICAL LABORATORIES
ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023
 Email: info@geolab.com.au PH: (03) 8361-9140

DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 2343/109

LOCATION: 1152 TAYLORS DEVELOPMENT - Botania, Plumpton, Stage 4

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m ³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m ³)	STANDARD OPTIMUM MOISTURE CONTENT (%)	PROBE DEPTH SETTING (mm)	VARIATION FROM OPTIMUM MOISTURE CONTENT (%)	MOISTURE RATIO (%)	WET +19mm (%)	WET +37.5mm (%)	APPROX. DEPTH BELOW FINISH LEVEL (mm)	
24/01/22	1	<i>Refer to #2343/110 for approx. test site locations.</i>	1.87	24.5	96.0	✘ 1.94	25.0	175	0.0 Drier	99.0	5	0	0	
24/01/22	2		1.84	22.5	95.5	1.92	23.5	175	1.0 Drier	95.0	0	0	0	
24/01/22	3		1.84	21.5	95.5	1.93	23.0	175	1.5 Drier	93.5	0	0	0	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 2:00pm Finish Time: 2:30pm

A Hilf Rapid Compaction test was carried out on a sample taken from each Field Density location to obtain the Compaction Parameters tabulated on this Report.

Moisture Content: AS 1289 2.1.1

Compaction Test: AS 1289 5.7.1

Soil Layer thickness: 200mm

Hilf Density Ratio and Hilf Moisture Variation ,Hilf Adjusted (APCWD) & Peak (PCWD) Converted Wet Density AS 1289 5.7.1

Field Density, Nuclear Gauge: AS 1289 5.8.1

Materials Sampled : AS 1289 1.2.1 Clause 6.4(b)

✘ Indicates APCWD

❖

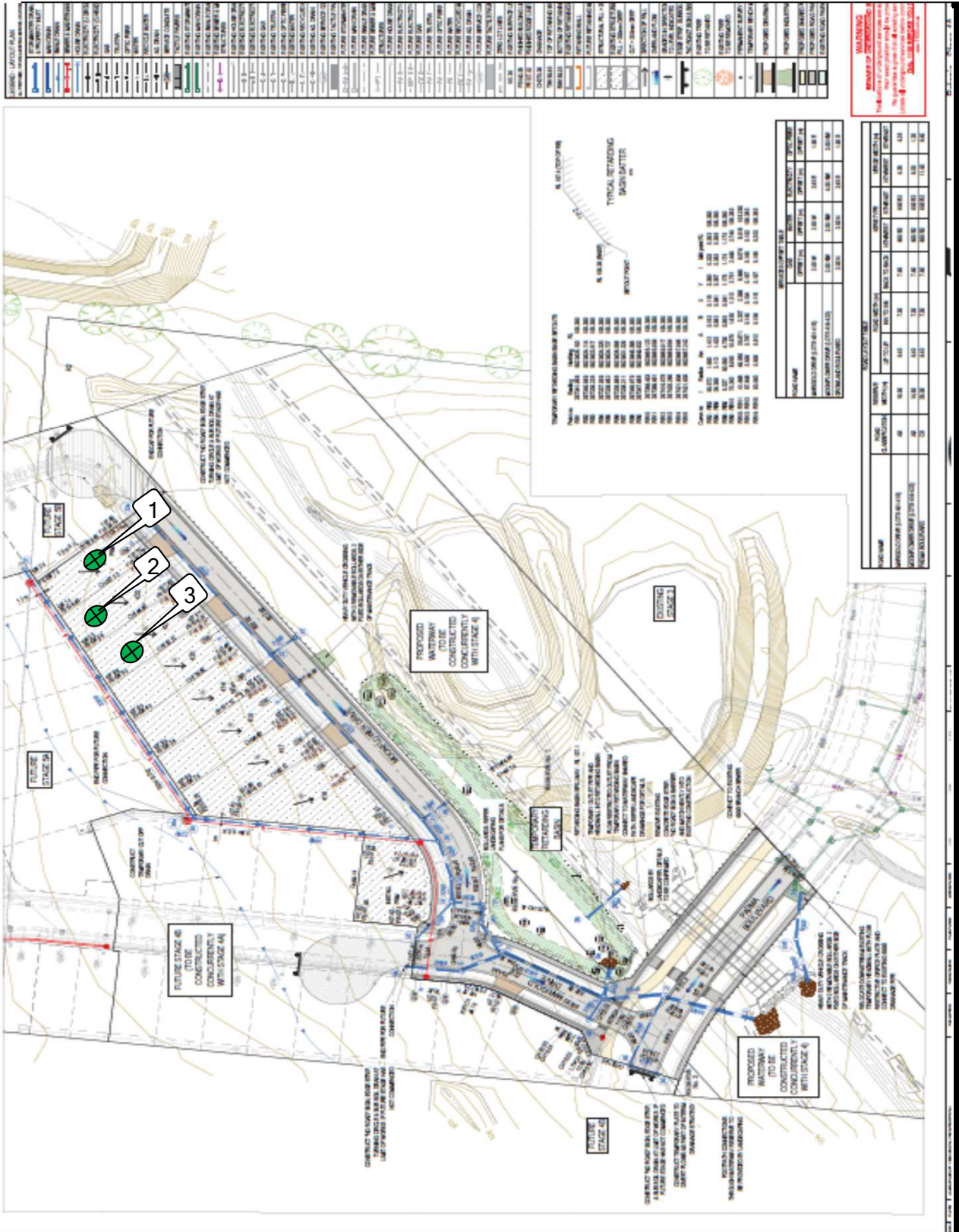


Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
 (Approved Signatory)

Issue Date: 27/1/2022



1	PROPOSED WATERWAY (TO BE CONSTRUCTED CONCURRENTLY WITH STAGE 4)
2	PROPOSED WATERWAY (TO BE CONSTRUCTED CONCURRENTLY WITH STAGE 4)
3	PROPOSED WATERWAY (TO BE CONSTRUCTED CONCURRENTLY WITH STAGE 4)

WARNING
 This drawing is a preliminary design and is not to be used for construction without the approval of the Engineer. Any use of this drawing without the approval of the Engineer is at the user's risk. The Engineer is not responsible for any errors or omissions in this drawing.



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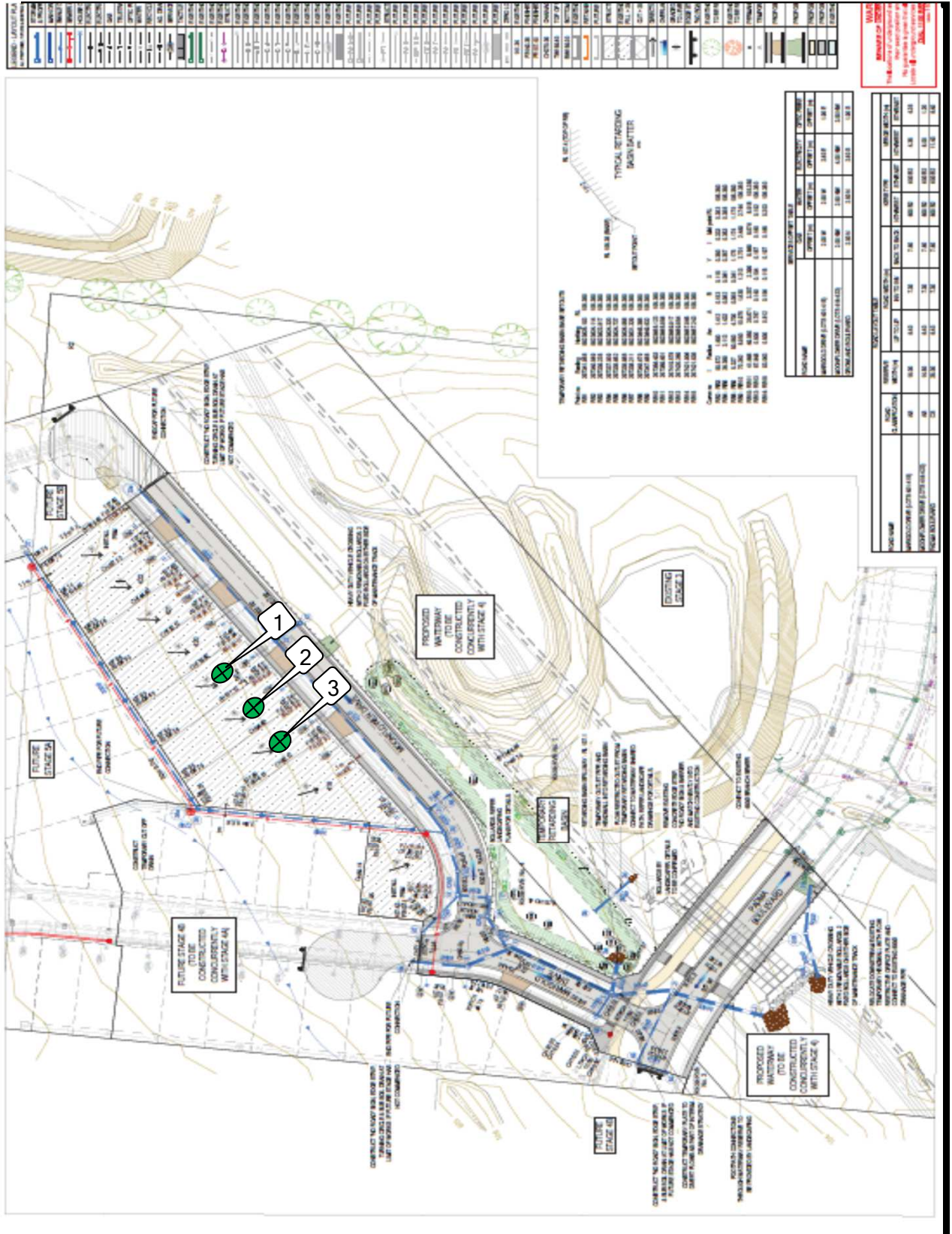
GEOTECHNICAL LABORATORIES
 ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023
 Email: info@geolab.com.au PH: (03) 8361-9140

CLIENT: 1152 TAYLORS DEVELOPMENT
LOCATION: Botania, Plumpton Stage 4
Sketch indicating compaction test locations

DATE: 24/01/2022
OPERATOR: PV
SCALE: NTS

JOB No.: 2343/110
CHECKED: KK
FIGURE No: -



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ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

Email: info@geolab.com.au PH: (03) 8361-9140

CLIENT: 1152 TAYLORS DEVELOPMENT

DATE: 27/01/2022

JOB No.: 2343/114

LOCATION: Botania, Plumpton Stage 4

OPERATOR: WS

CHECKED: KK

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: -



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ACN 102 571 077

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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 2343/119

LOCATION: 1152 TAYLORS DEVELOPMENT - Botania, Plumpton, Stage 4

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m ³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m ³)	STANDARD OPTIMUM MOISTURE CONTENT (%)	PROBE DEPTH SETTING (mm)	VARIATION FROM OPTIMUM MOISTURE CONTENT (%)	MOISTURE RATIO (%)	WET +19mm (%)	WET +37.5mm (%)	APPROX. DEPTH BELOW FINISH LEVEL (mm)	
1/02/22	1	<i>Refer to #2343/120 for approx. test site locations.</i>	1.93	25.0	98.5	✘ 1.96	25.5	175	0.5 Drier	98.0	6	0	0	
1/02/22	2		1.89	22.5	98.5	✘ 1.93	25.5	175	3.0 Drier	87.5	4	0	0	
1/02/22	3		1.90	23.5	97.5	✘ 1.95	24.5	175	1.0 Drier	96.0	5	0	0	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 12:30pm Finish Time: 1:20pm

A Hilf Rapid Compaction test was carried out on a sample taken from each Field Density location to obtain the Compaction Parameters tabulated on this Report.

Moisture Content: AS 1289 2.1.1

Compaction Test: AS 1289 5.7.1

Soil Layer thickness: 200mm

Hilf Density Ratio and Hilf Moisture Variation ,Hilf Adjusted (APCWD) & Peak (PCWD) Converted Wet Density AS 1289 5.7.1

Field Density, Nuclear Gauge: AS 1289 5.8.1

Materials Sampled : AS 1289 1.2.1 Clause 6.4(b)

✘ Indicates APCWD

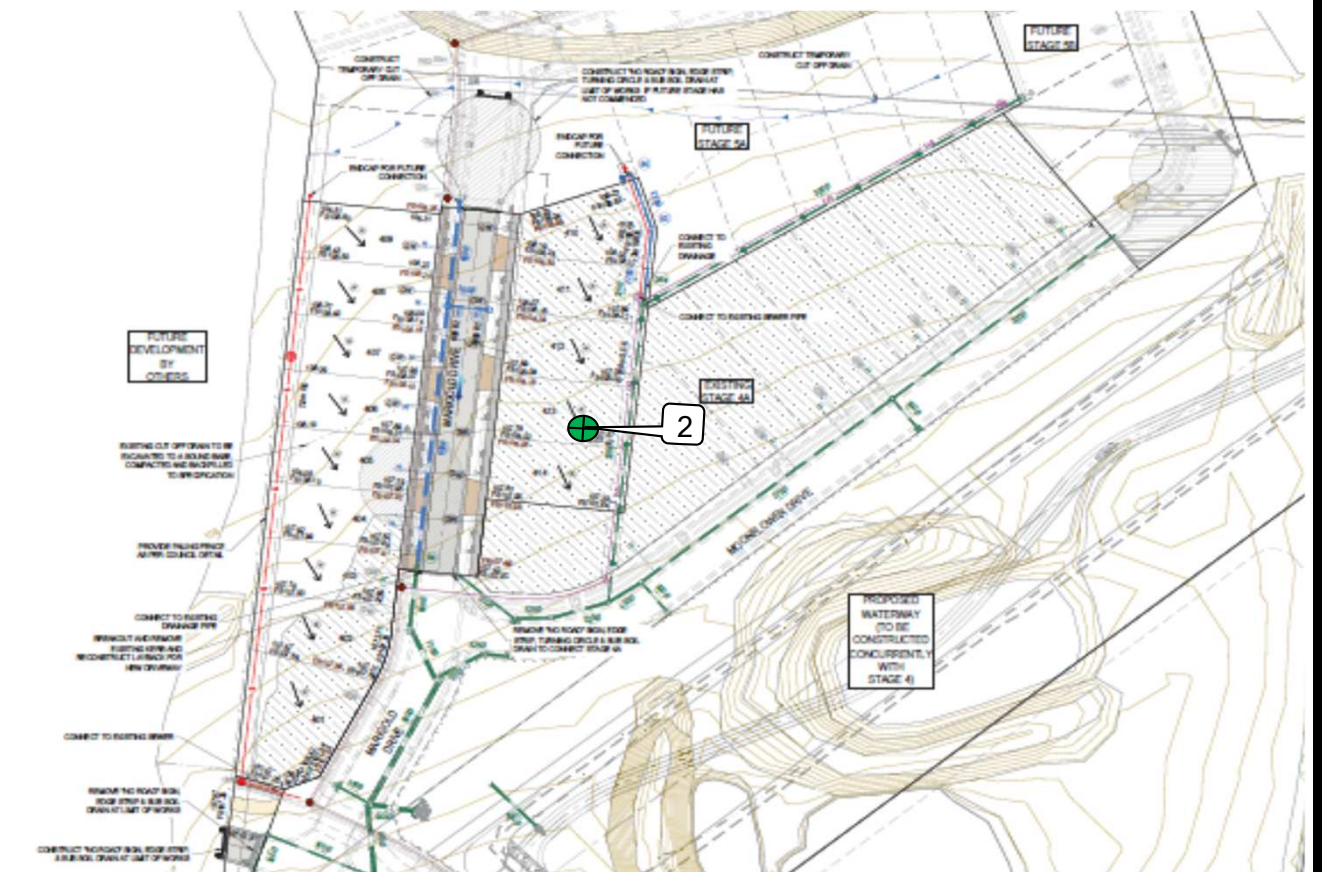
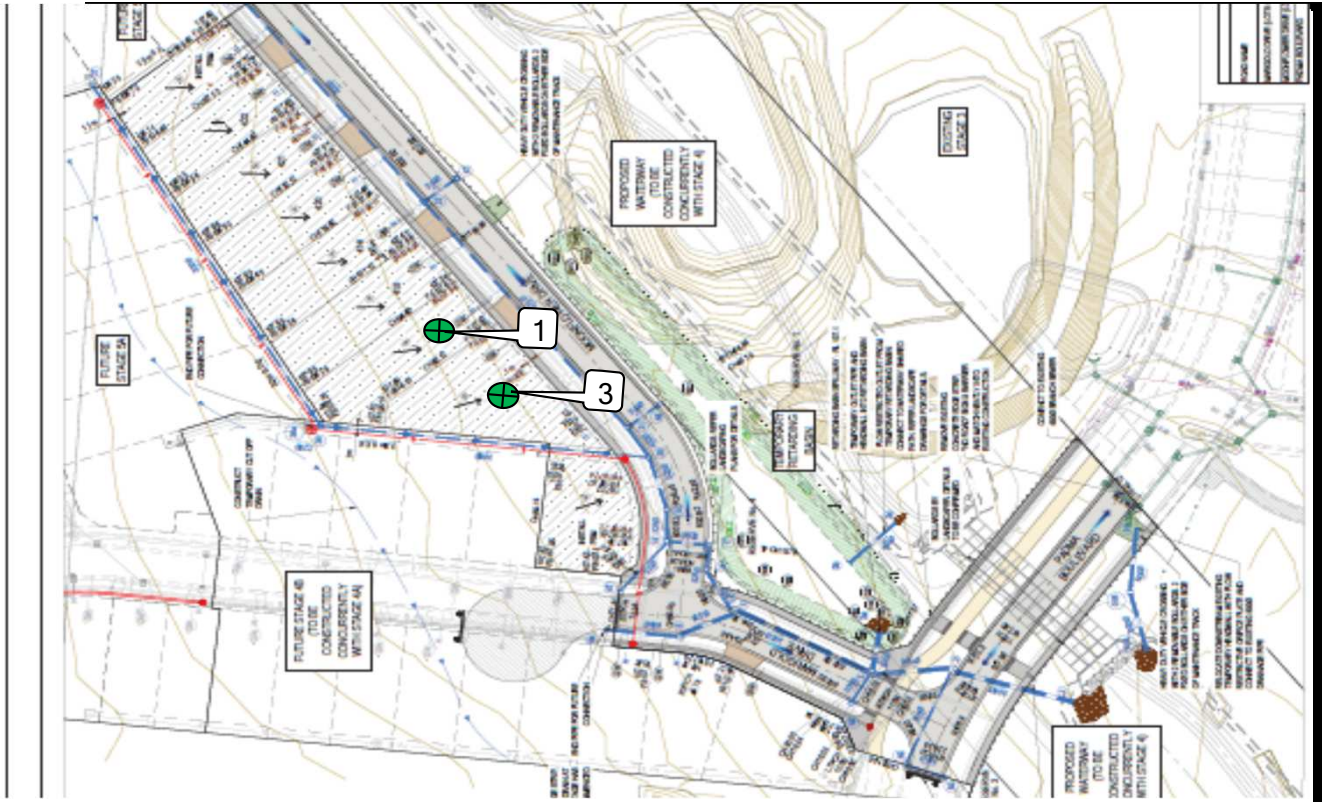


Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
 (Approved Signatory)

Issue Date: 3/2/2022



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ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

Email: info@geolab.com.au PH: (03) 8361-9140

CLIENT: 1152 TAYLORS DEVELOPMENT

LOCATION: Botania, Plumpton Stage 4

Sketch indicating compaction test locations

DATE: 1/02/2022

OPERATOR: BM

SCALE: NTS

JOB No.: 2343/120

CHECKED: KK

FIGURE No: -