

Reference
No.: 9006-039

LEVEL ONE

SURVEILLANCE

AND INSPECTION REPORT

*Carried Out
By*



PREPARED FOR: -

SYMON BROS. CONSTRUCTIONS PTY LTD



Table of Contents

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Appendices

Appendix A Construction Drawings

Appendix B Daily Field Compaction Summary Results



Client Name: Symon Bros. Constructions Pty Ltd
Project Name: The Grove South West Precinct Stage 49
Date: 8th of June 2023
Author: Mr. Sam Loza
Reference No.: 9006-039
Revision: 0
Project Manager: Mr. George Dimopoulos

1. Introduction & Scope

At the request of Symon Bros. Constructions Pty Ltd, Geotechnical Laboratories has carried out inspection and testing of the above-mentioned site from the 31st of May 2022 to the 25th of July 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 Symon Bros. Constructions Pty Ltd and was used to determine compliance of earthworks in conjunction with the requirements of AS 3798 – 2007.

(1) Plan of Subdivision B.P.D. Pty Ltd Ref No.8352/49.

General site works involved the placement of fill, using on-site derived clay, to bring the fill region to the required finished levels as indicated on the faceplan drawings.

2. Site Preparation

Site inspections were undertaken on the 10th of May 2022 confirming that selected areas to be filled were completely stripped of topsoil prior to filling. The brown silty topsoils had been stockpiled around the site for later removal off-site.

Proof roll inspections were performed throughout the project duration to ensure no significant soft areas were present prior to filling.

3. Fill Material

It is understood that the fill material used was sourced from site cut areas.



The fill material is best described as a silty CLAY, brown, red brown, slightly moist to moist, medium to high plasticity with basalt gravels and cobbles.

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:

- Dump trucks & highway trucks
- A watercart
- A sheepsfoot compactor (815)
- Scrapers
- A padfoot roller

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

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 fifty-six 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 **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, Symon Bros. Constructions 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 Symon Bros. Constructions Pty Ltd from the 31st of May 2022 to the 25th of July 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 Symon Bros. Constructions 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 Symon Bros. Constructions 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.

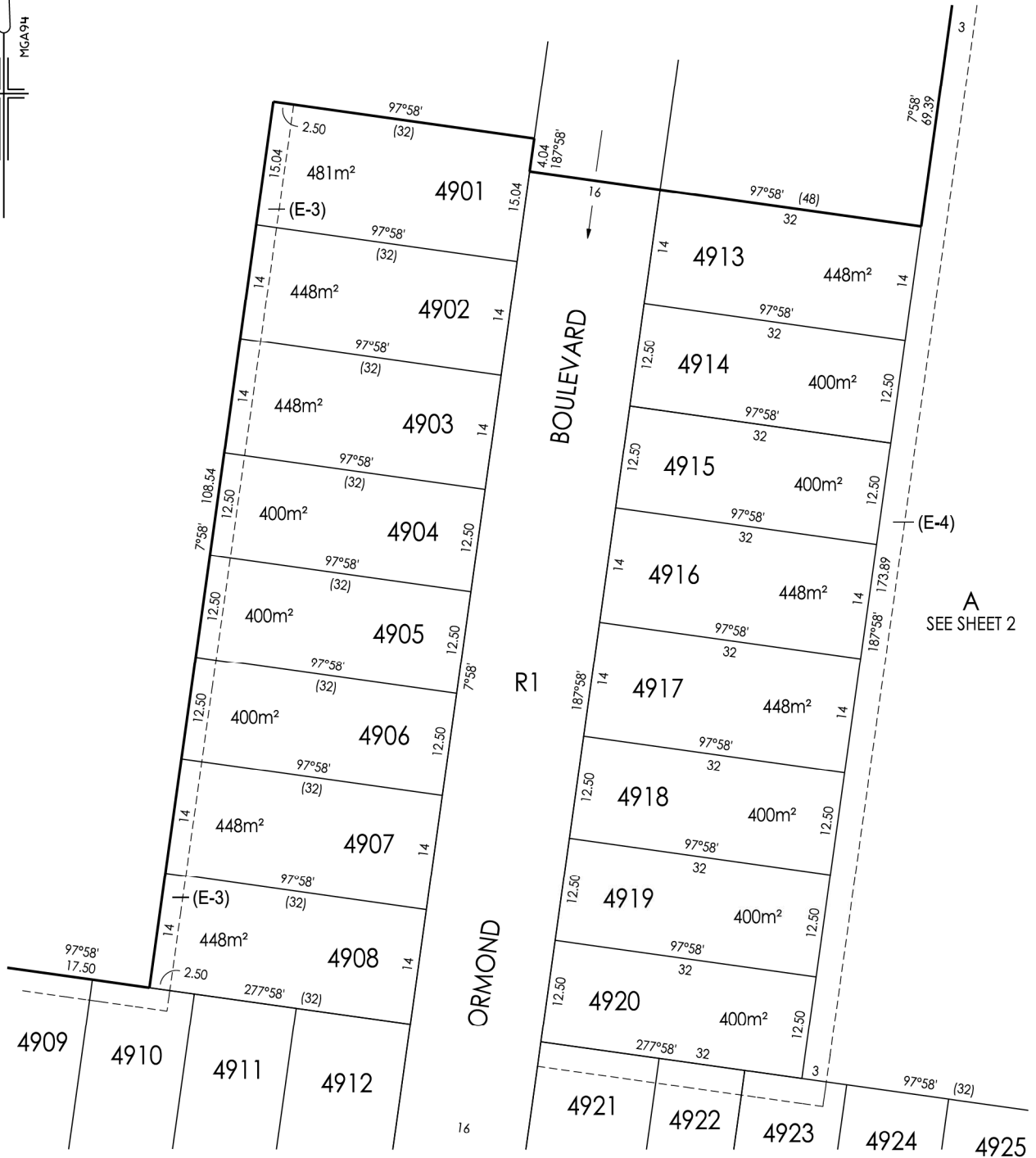
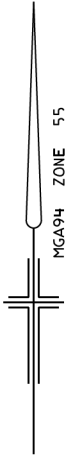


LEVEL ONE
SURVEILLANCE
AND INSPECTION REPORT

APPENDIX A

PLAN OF SUBDIVISION

PLAN NUMBER
PS 844185C



SEE SHEET 4

SEE SHEET 4



Breese Pitt Dixon Pty Ltd
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SCALE

1:500



ORIGINAL
SHEET SIZE A3

SHEET 3

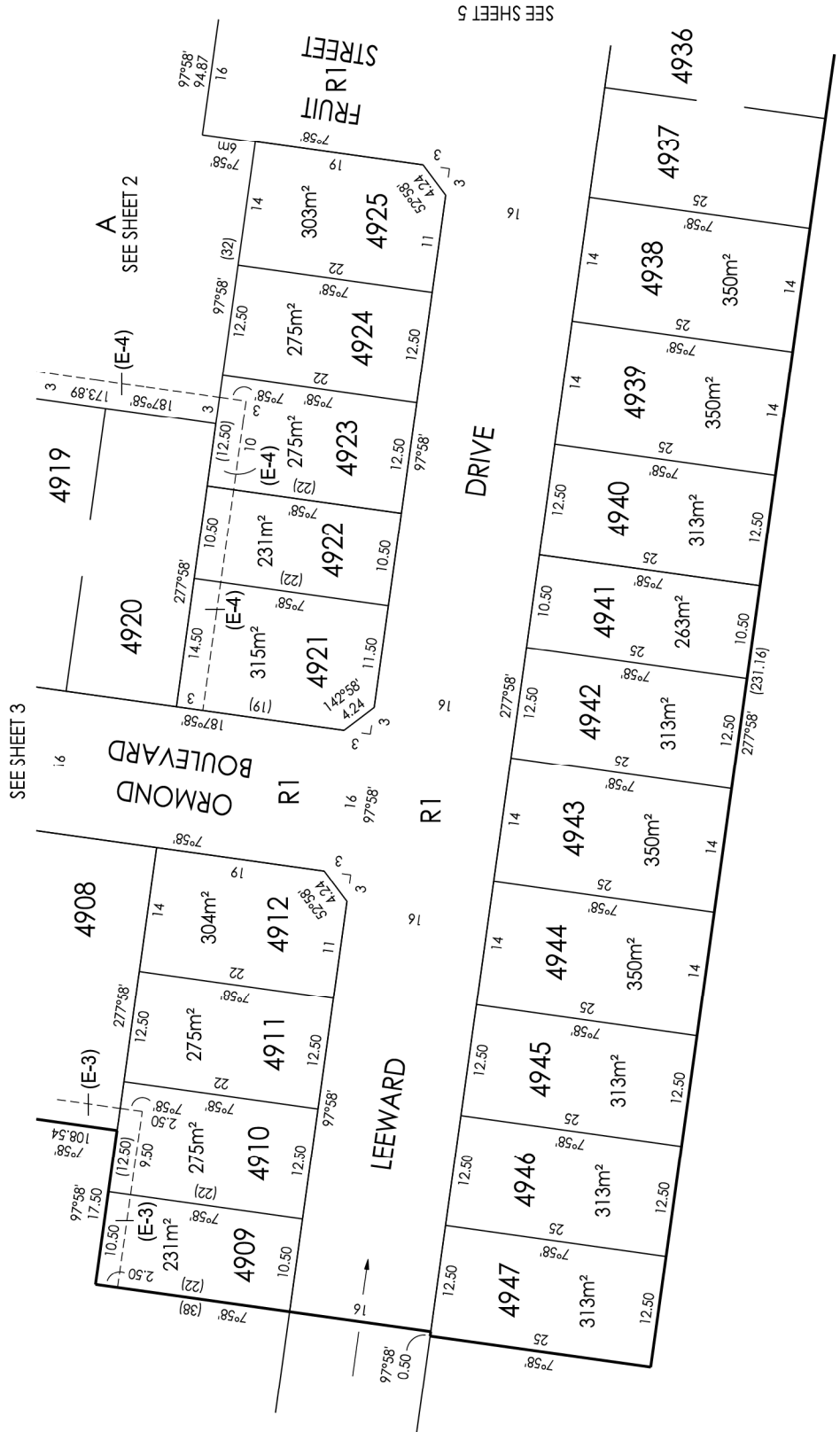
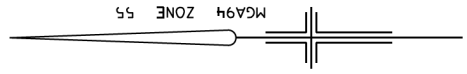
REF: 8352/49

VERSION: 5

LICENSED SURVEYOR: SIMON COX

PLAN OF SUBDIVISION

PLAN NUMBER
PS 844185C



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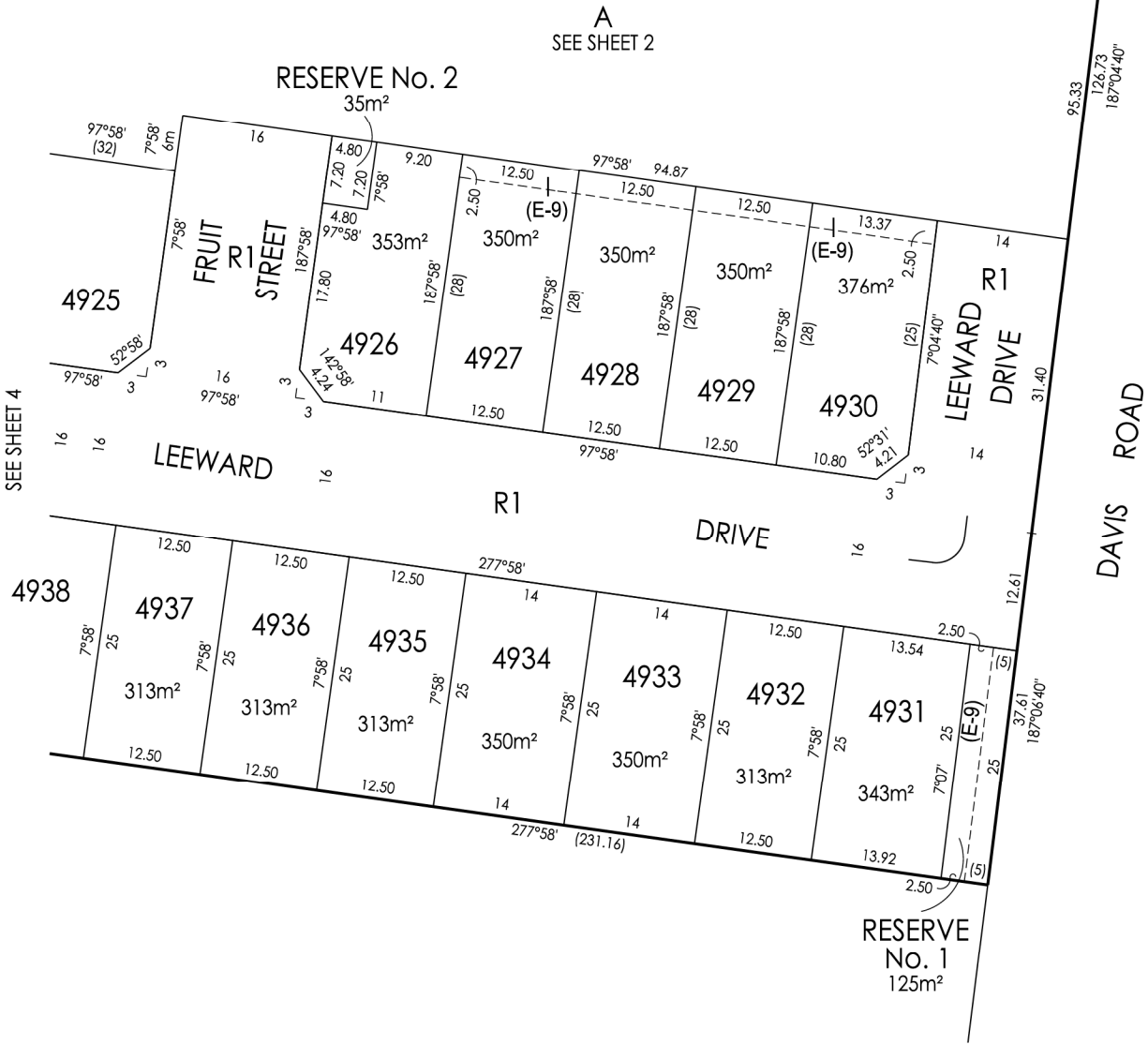
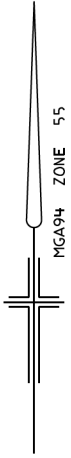
REF: 8352/49

VERSION: 5

LICENSED SURVEYOR: SIMON COX

ORIGINAL SHEET SIZE A3

SHEET 4



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SCALE	
1:500	
LENGTHS ARE IN METRES	

ORIGINAL SHEET SIZE A3	SHEET 5
REF: 8352/49	VERSION: 5

LICENSED SURVEYOR: SIMON COX



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.: # 9002/001

LOCATION: SYMON BROS - The Grove, South West Precinct, Stages 45 & 49

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)	
31/05/22	1	<i>Refer to #9002/002 for approx. test site locations.</i>	1.98	24.0	100.5	1.97	22.0	175	2.0 Wetter	109.0	0	0	0	
31/05/22	2		1.86	24.5	95.5	1.94	24.5	175	0.0 Wetter	101.0	0	0	200	
31/05/22	3		1.84	22.0	95.0	1.94	22.5	175	0.5 Drier	97.0	0	0	400	
31/05/22	4		1.96	21.0	100.0	1.96	23.0	175	1.5 Drier	92.5	0	0	500	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 1:15pm Finish Time: 1:50pm

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)



Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 9/6/2022

PLAN NUMBER
PS 8441251

PLAN OF SUBDIVISION



REF: 8352/45	VERSION: 5	ORIGINAL SHEET SIZE A3
LICENSED SURVEYOR: SIMON COX		
SCALE 1:500		
 LENGTHS ARE IN METRES		



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES

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14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

DATE: 31/05/2022

JOB No.: 9002/002

LOCATION: The Grove South West Precinct, Stage 45 & 49

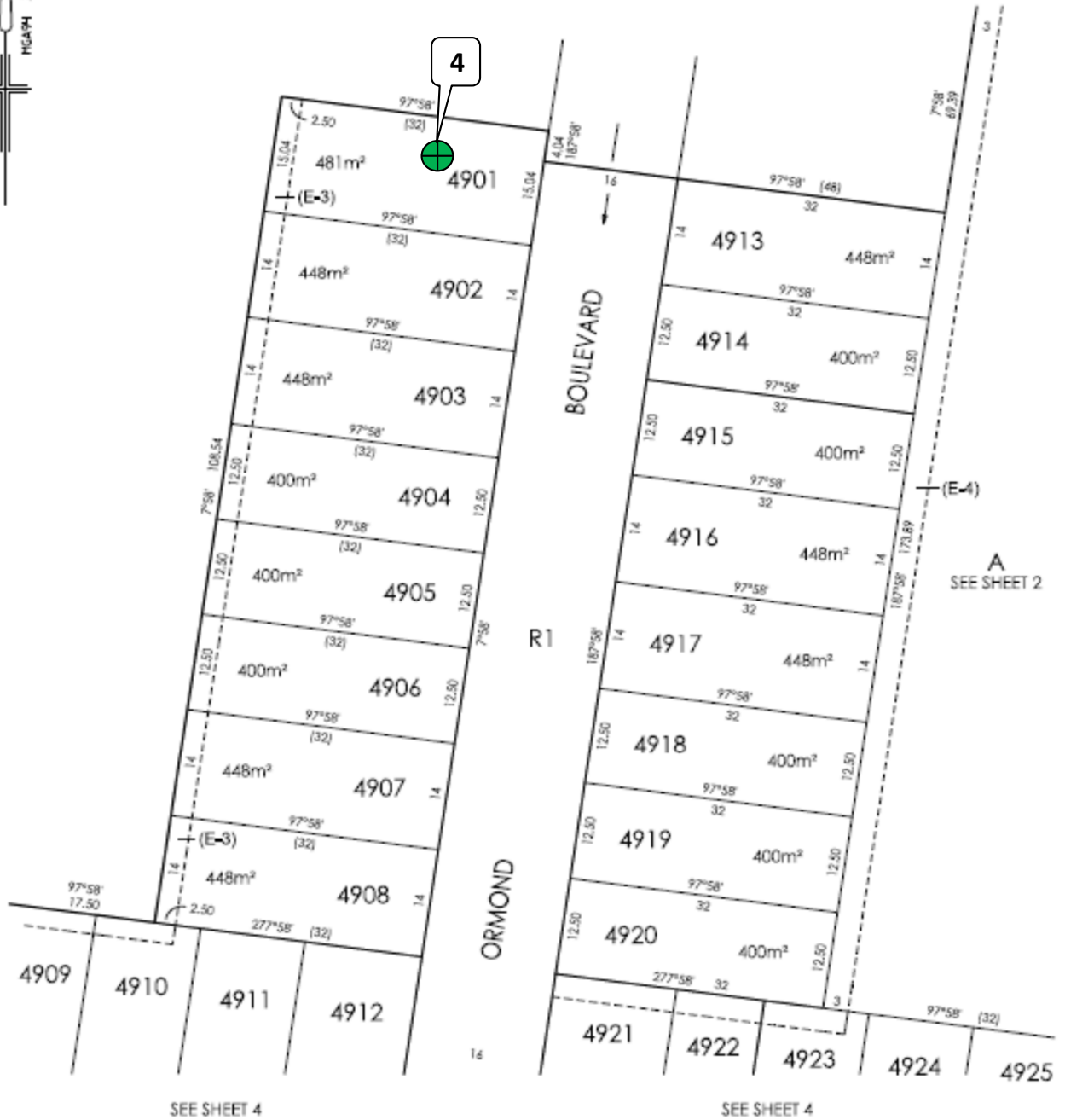
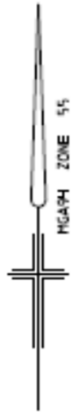
OPERATOR: AB

CHECKED: KK

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 1 of 2



**GEOTECHNICAL
LABORATORIES**

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 45 & 49

Sketch indicating compaction test locations

DATE: 31/05/2022

OPERATOR: AB

SCALE: NTS

JOB No.: 9002/002

CHECKED: KK

FIGURE No: 2 of 2



GEOTECHNICAL LABORATORIES
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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9006/001

LOCATION: SYMON BROS - The Grove - South West Precinct - Stage 49 & 50

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)	
1/06/22	1	<i>Refer to #9006/002 for approx. test site locations.</i>	2.03	27.0	102.5	✘ 1.99	24.0	175	3.0 Wetter	113.0	4	0	-	
1/06/22	2		2.03	25.0	102.5	1.98	23.0	175	2.0 Wetter	108.5	0	0	-	
1/06/22	3		1.94	30.0	99.0	1.95	26.0	175	4.0 Wetter	115.0	0	0	-	
1/06/22	4		1.96	33.0	100.5	1.95	29.0	175	4.0 Wetter	113.5	0	0	-	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 11:00am Finish Time:12:00pm

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



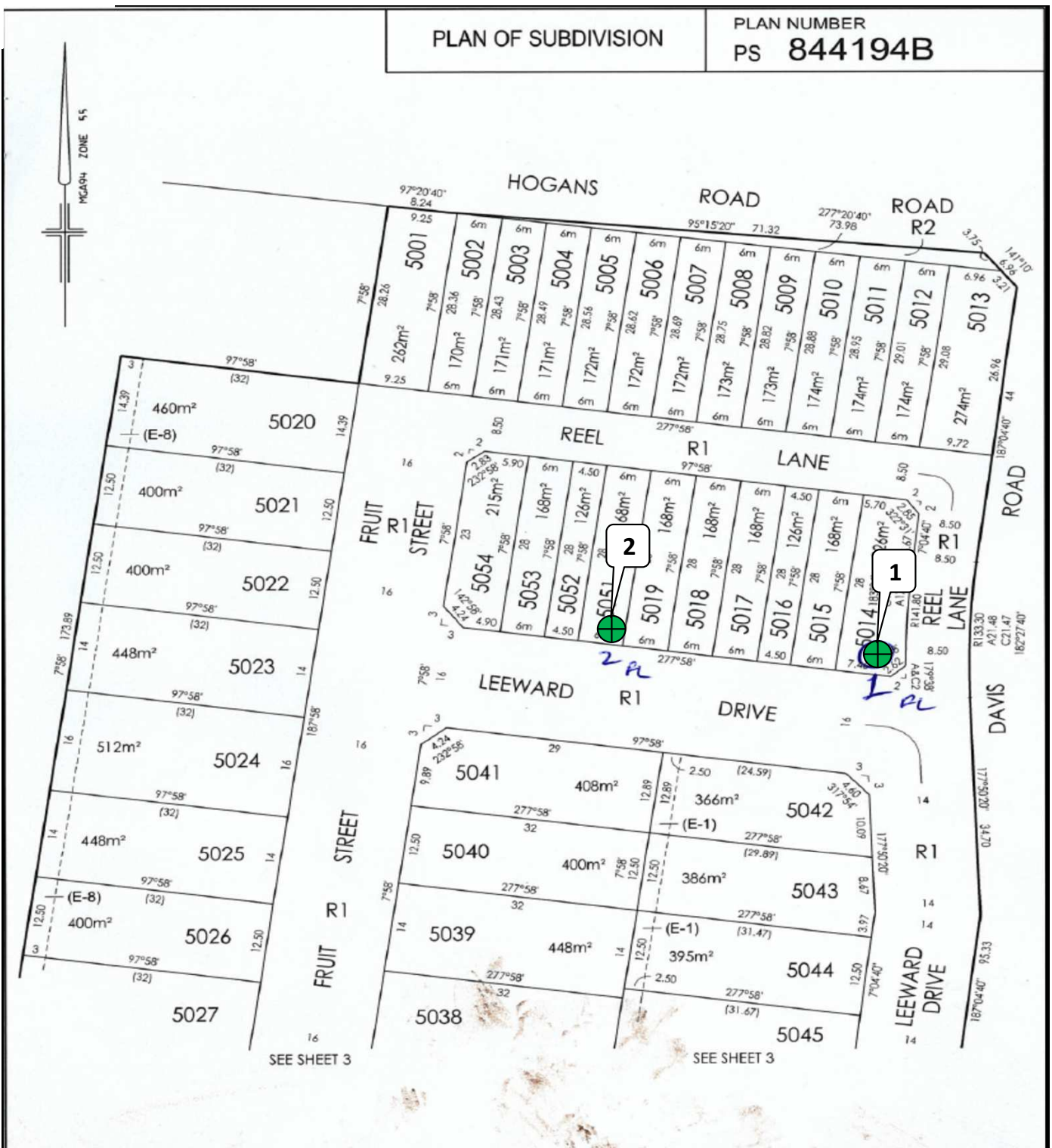
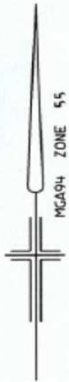
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17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 6/6/2022



SEE SHEET 3

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SCALE

1:500



LENGTHS ARE IN METRES

ORIGINAL SHEET SIZE A3

SHEET 2

REF: 8352/50

VERSION: 5

LICENSED SURVEYOR: SIMON COX



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

DATE: 01/06/2022

JOB No.: 9006/002

LOCATION: The Grove South West Precinct, Stage 49

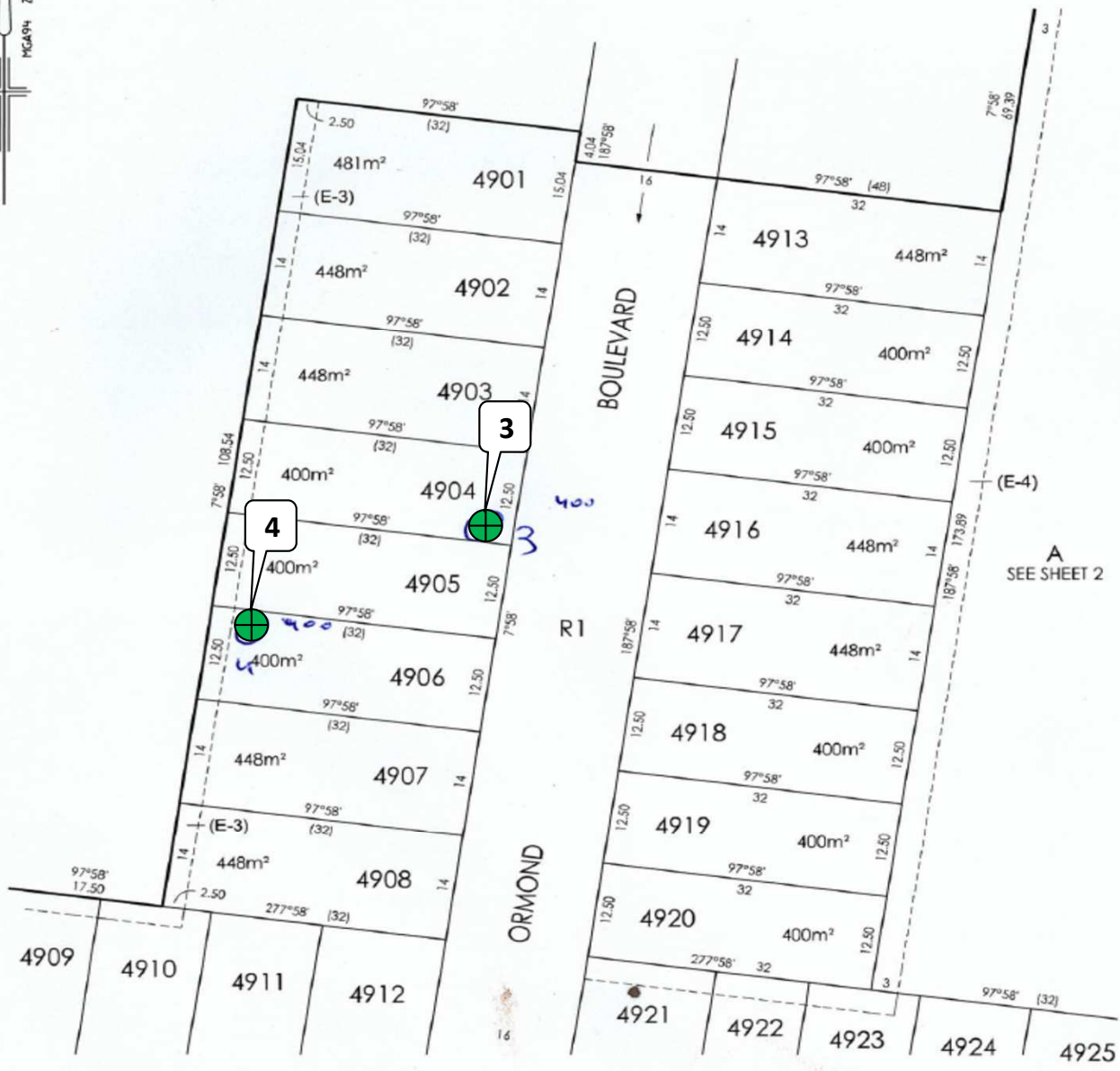
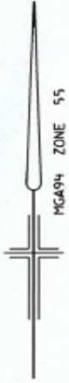
OPERATOR: PV

CHECKED: DM

Sketch indicating compaction test locations

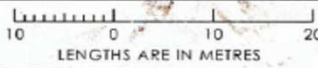
SCALE: NTS

FIGURE No: 1 of 2



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SCALE
1:500



ORIGINAL SHEET SIZE A3
REF: 8352/49

SHEET 3
VERSION: 5

LICENSED SURVEYOR: SIMON COX



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GEOTECHNICAL LABORATORIES
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14 Ravenhall Way, Ravenhall, Vic 3023
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CLIENT: SYMON BROS

DATE: 01/06/2022

JOB No.: 9006/002

LOCATION: The Grove South West Precinct, Stage 49

OPERATOR: PV

CHECKED: DM

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 2 of 2



GEOTECHNICAL LABORATORIES
 ACN 102 571 077
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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9006/004

LOCATION: SYMON BROS - The Grove, South West Precinct, Stage 49

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)	
2/06/22	5	<i>Refer to #9006/005 for approx. test site locations.</i>	1.91	21.5	98.0	✘ 1.95	23.5	175	2.0 Drier	91.5	5	0	400	
2/06/22	6		1.88	24.5	97.0	1.94	23.5	175	1.0 Wetter	104.0	0	0	400	
2/06/22	7		1.90	26.5	96.0	1.98	24.0	175	2.5 Wetter	109.5	0	0	600	
2/06/22	8		1.98	22.5	99.0	2.00	21.5	175	0.5 Wetter	103.5	0	0	600	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 12:45pm 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

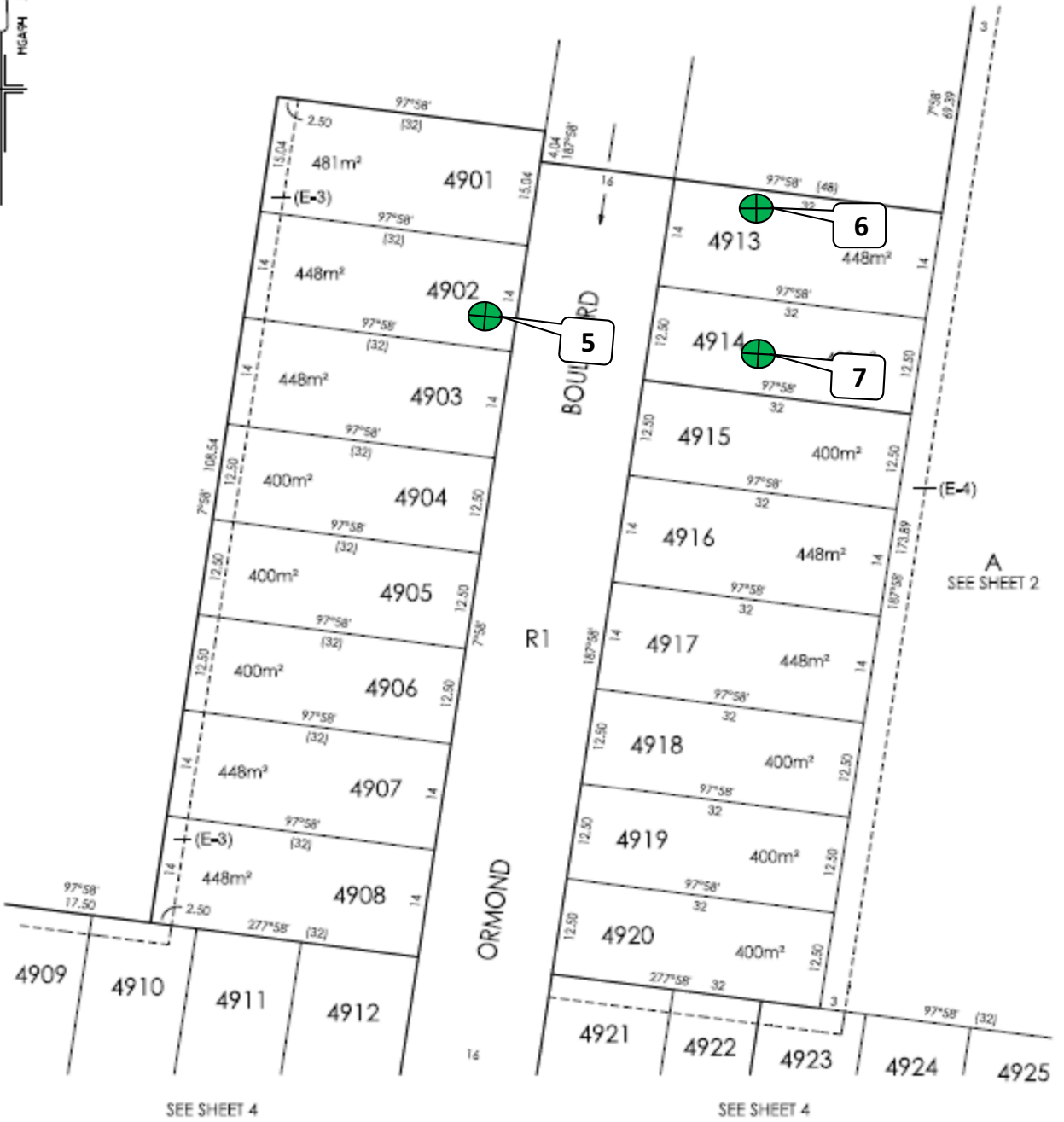


Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

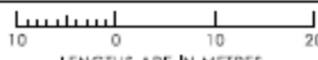
MICK CROWE
(Approved Signatory)

Issue Date: 9/6/2022



Breese Pitt Dixon Pty Ltd

SCALE
1:500



ORIGINAL SHEET SIZE A3
SHEET



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CLIENT: SYMON BROS

DATE: 2/06/2022

JOB No.: 9006/005

LOCATION: The Grove South West Precinct, Stage 49

OPERATOR: NE/PS CHECKED: KK

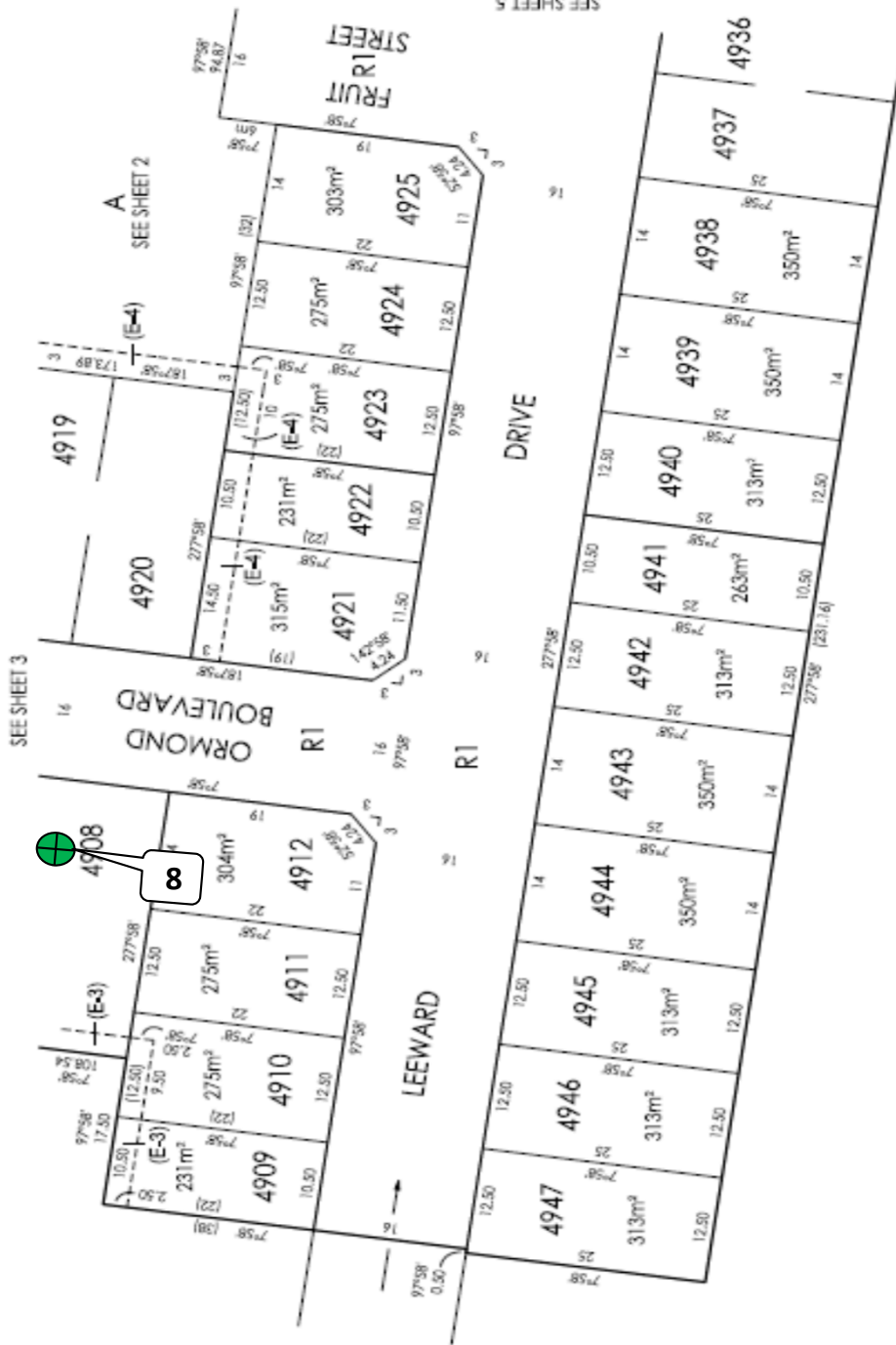
Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 1 of 2

PLAN NUMBER
PS 844185C

PLAN OF SUBDIVISION



REF: 8352/49	VERSION: 5	ORIGINAL SHEET SIZE A3	SHEET
LISCENCED SURVEYOR: SIMON COX			
SCALE 1:500			
Breesse Pitt Dixon Pty Ltd 1/19 Cato Street Hawthorn East Vic 3123 Ph: 8821 9301 Fax: 8821 9310			



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CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 49

Sketch indicating compaction test locations

DATE: 2/06/2022

JOB No.: 9006/005

OPERATOR: NE/PS CHECKED: KK

SCALE: NTS

FIGURE No: 2 of 2



GEOTECHNICAL LABORATORIES
ACN 102 571 077

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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9006/006

LOCATION: SYMON BROS - The Grove - South West Precinct - Stage 49

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)	
6/06/22	9	<i>Refer to #9006/007 for approx. test site locations.</i>	2.02	28.5	101.0	2.01	24.5	175	4.0 Wetter	115.5	0	0	0	
6/06/22	10		1.99	23.5	103.5	✱ 1.92	23.5	175	0.0 Drier	99.0	0	0	250	
6/06/22	11		1.93	19.5	103.5	1.86	22.5	175	3.5 Drier	85.5	0	0	300	
6/06/22	12		1.97	24.5	101.0	1.95	24.0	175	0.5 Wetter	102.0	7	0	400	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 1:00pm Finish Time:3:00pm

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

❖

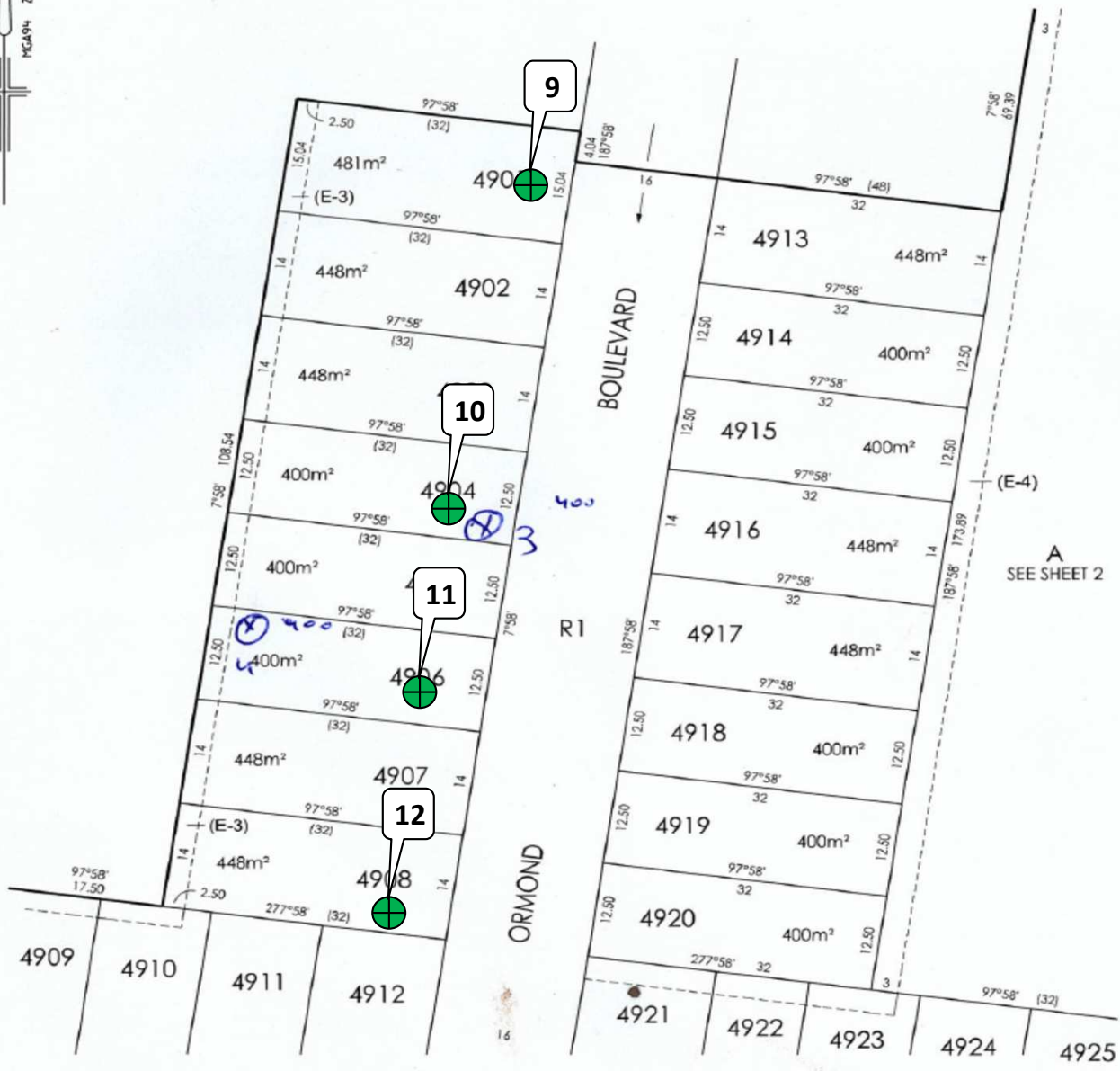
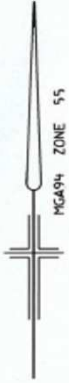


Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
 (Approved Signatory)

Issue Date: 9/6/2022



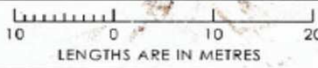
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ORIGINAL SHEET SIZE A3
REF: 8352/49

SHEET 3
VERSION: 5

LICENSED SURVEYOR: SIMON COX



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CLIENT: SYMON BROS

DATE: 06/06/2022

JOB No.: 9006/007

LOCATION: The Grove South West Precinct, Stage 49

OPERATOR: BM

CHECKED: DM

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: -



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.: # 9005/001

LOCATION: SYMON BROS - The Grove - South West Precinct - Stage 48 & 49

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)	
8/06/22	1	<i>Refer to #9005/002 for approx. test site locations.</i>	1.91	21.0	98.5	✘ 1.94	23.0	175	2.0 Drier	90.5	5	0	400	
8/06/22	2		1.91	23.5	98.0	1.94	23.0	175	0.5 Wetter	102.0	0	0	400	
8/06/22	3		1.94	20.5	101.0	1.92	23.0	175	2.0 Drier	90.5	0	0	400	
8/06/22	4		1.87	25.0	95.0	✘ 1.97	23.0	175	2.0 Wetter	108.5	4	0	400	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

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: 1:15pm

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: 10/6/2022

PLAN OF SUBDIVISION
 PLAN NUMBER
 PS 844185C



REF: 8352149	VERSION: 5	SHEET 4
LICENSED SURVEYOR: SIMON COX		
SCALE		
Brees Pitt Dixon Pty Ltd 1/19 Cato Street Hawthorn East Vic 3123 PH: 8823 2300 Fax: 8823 2310 www.bpd.com.au info@bpd.com.au		



GEOTECHNICAL LABORATORIES
 ACN 102 571 077
 14 Ravenhall Way, Ravenhall, Vic 3023
 Email: info@geolab.com.au PH: (03) 8361-9140

CLIENT: SYMON BROS
LOCATION: The Grove South West Precinct, Stage 49
 Sketch indicating compaction test locations

DATE: 08/06/2022
OPERATOR: PV
SCALE: NTS

JOB No.: 9005/002
CHECKED: DM
FIGURE No: 2 of 2



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.: # 9006/008

LOCATION: SYMON BROS - The Grove SWP - Stage 49

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)	
11/06/22	13	<i>Refer to #9006/009 for approx. test site locations.</i>	1.93	26.0	98.0	1.97	24.5	175	1.5 Wetter	106.0	0	0	-	
11/06/22	14		1.94	26.0	98.5	1.97	22.5	175	3.5 Wetter	115.5	0	0	-	
11/06/22	15		1.88	23.0	96.0	1.96	23.0	175	0.0 Drier	99.0	0	0	-	
11/06/22	16		1.94	27.0	98.5	1.97	26.5	175	1.0 Wetter	103.0	0	0	-	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 11:30am Finish Time:12:00pm

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)



Accredited for compliance with ISO/IEC

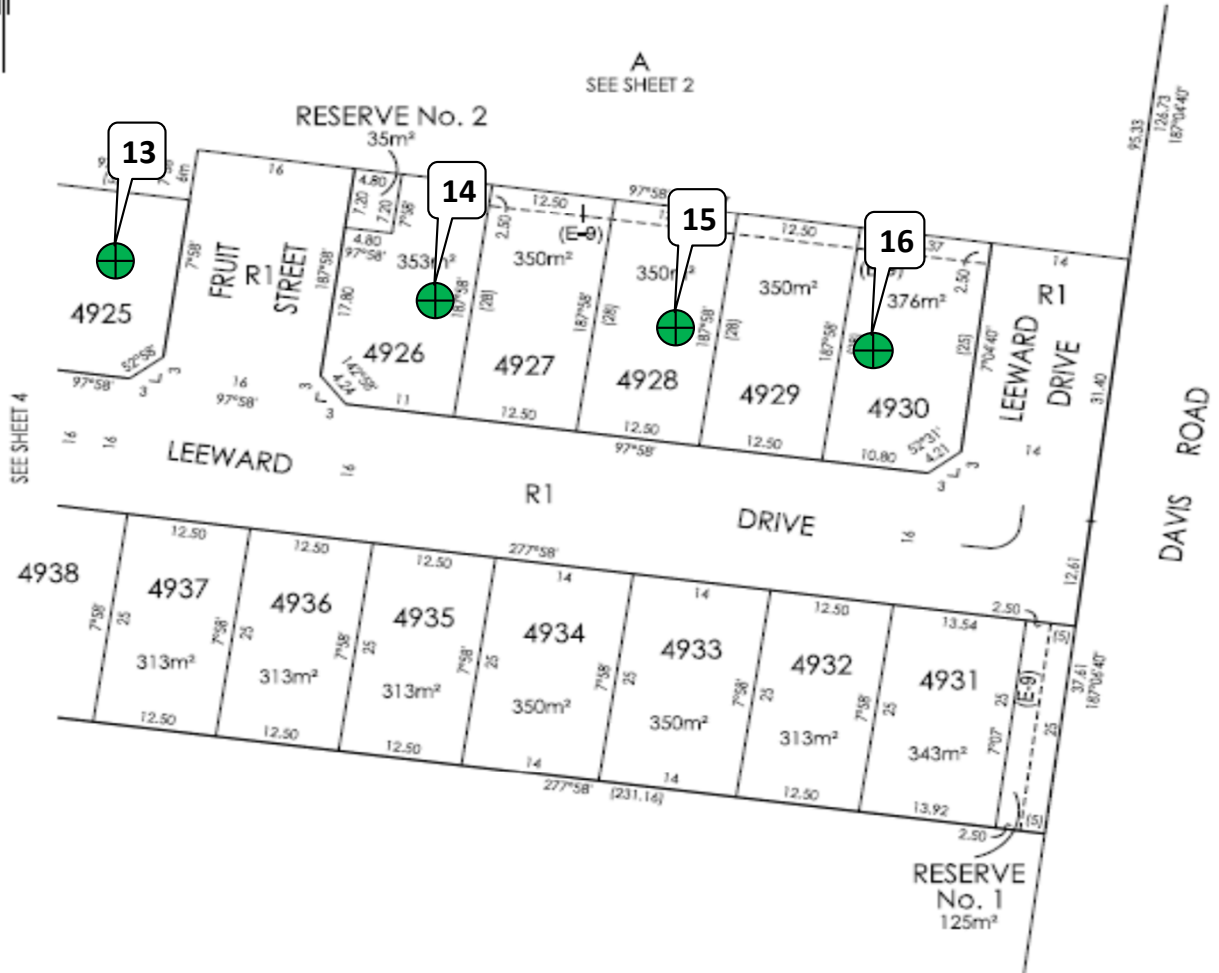
17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 17/6/2022

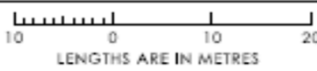
❖
❖



Breese Pitt Dixon Pty Ltd
1/19 Calo Street
Hawthorn East Vic 3123
Ph: 8823 2300 Fax: 8823 2310
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SCALE

1:500



ORIGINAL SHEET SIZE A3
REF: 8352/49

SHEET 5
VERSION: 5

LICENSED SURVEYOR: SIMON COX



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES
ACN 102 571 077

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

CLIENT: SYMON BROS

DATE: 11/06/2022

JOB No.: 9006/009

LOCATION: The Grove South West Precinct, Stage 49

OPERATOR: AB

CHECKED: DM

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: -



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.: # 9006/015

LOCATION: SYMON BROS - The Grove SWP - Stage 49

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)	
22/06/22	17	<i>Refer to #9006/016 for approx. test site locations.</i>	1.93	23.0	99.5	1.94	24.0	175	1.0 Drier	95.0	0	0	500	
22/06/22	18		1.93	24.0	98.5	1.96	24.5	175	0.0 Drier	99.0	0	0	500	
22/06/22	19		2.02	24.0	103.0	✘ 1.96	24.0	175	0.0 Drier	100.0	4	0	1000	
22/06/22	20		1.91	21.5	96.5	✘ 1.98	23.5	175	1.5 Drier	92.5	8	0	1000	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 11:40am Finish Time: 1.00pm

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

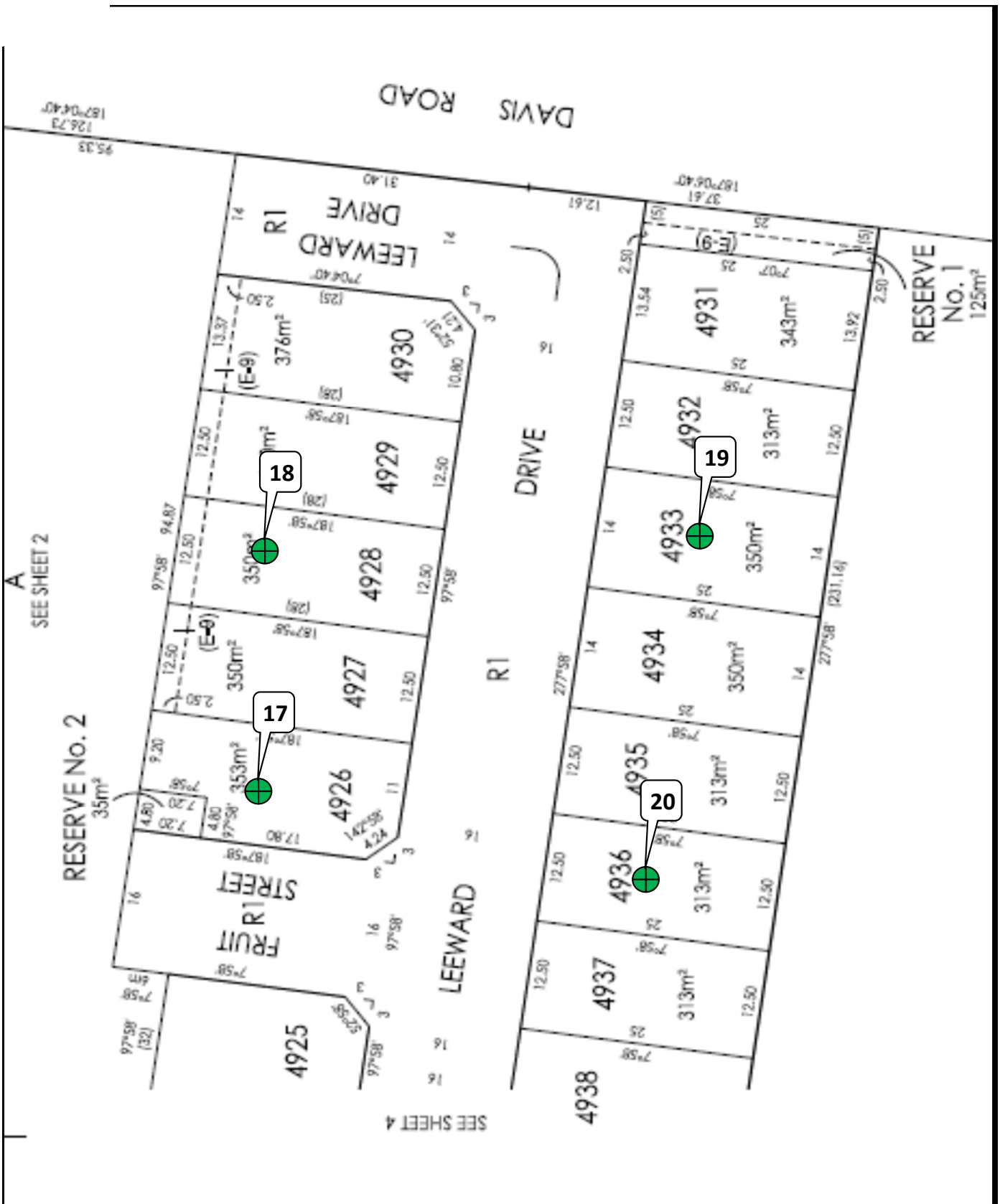


Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 27/6/2022



**GEOTECHNICAL
LABORATORIES**

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 49

Sketch indicating compaction test locations

DATE: 22/06/2022

OPERATOR: BM

SCALE: NTS

JOB No.: 9006/016

CHECKED: DM

FIGURE No: -



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.: # 9005/008

LOCATION: SYMON BROS - The Grove SWP - Stage 48 & 49

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)	
23/06/22	14	<i>Refer to #9005/009 for approx. test site locations.</i>	2.02	27.5	102.5	✘ 1.97	25.5	175	2.0 Wetter	108.0	6	0	-	
23/06/22	15		2.00	26.0	101.0	✘ 1.98	23.5	175	2.5 Wetter	110.5	4	0	-	
23/06/22	16		1.90	23.0	96.0	✘ 1.98	21.5	175	1.0 Wetter	105.5	5	0	-	
23/06/22	17		2.03	24.0	102.5	✘ 1.97	24.0	175	0.0 Drier	100.0	4	0	-	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time:12:50pm Finish Time:1:50pm

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



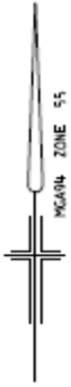
Accredited for compliance with ISO/IEC

17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

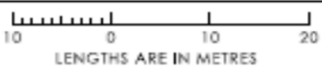
Issue Date: 29/6/2022



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Hawthorn East Vic 3123
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SCALE

1:500



ORIGINAL SHEET SIZE A3

SHEET 3

REF: 8352/49

VERSION: 5

LICENSED SURVEYOR: SIMON COX



**GEOTECHNICAL
LABORATORIES**

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

DATE: 23/06/2022

JOB No.: 9005/009

LOCATION: The Grove South West Precinct, Stage 48 & 49

OPERATOR: WS

CHECKED: DM

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 1 of 2



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 1/19 Calo Street
 Hawthorn East Vic 3123
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SCALE

1:500

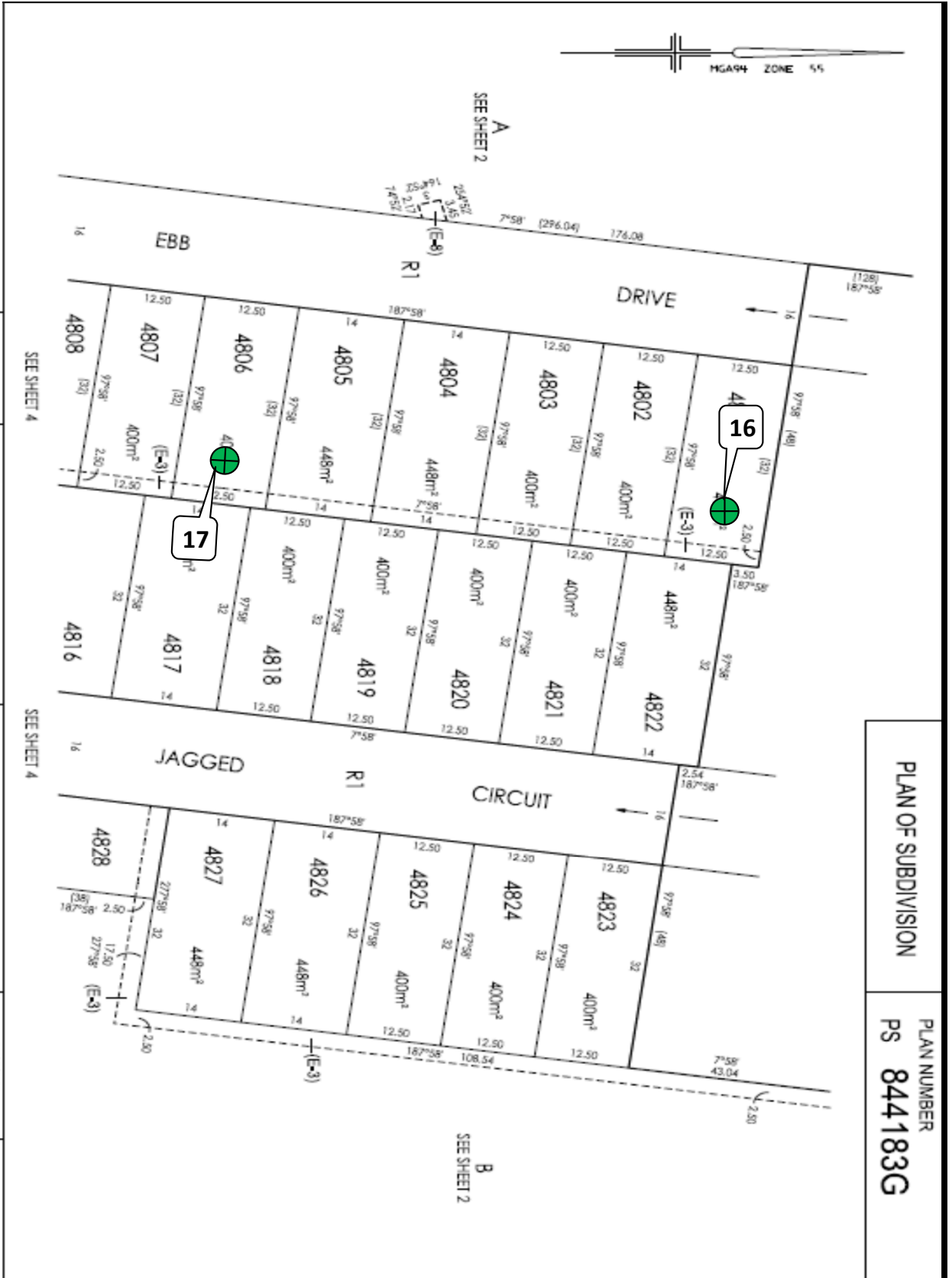
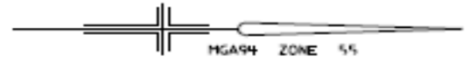


LICENSED SURVEYOR: SIMON COX

REF: 8352/48 VERSION: 4

ORIGINAL SHEET SIZE A3

SHEET 3



PLAN OF SUBDIVISION

PLAN NUMBER
 PS 844183G



**GEOTECHNICAL
 LABORATORIES**

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 48 & 49

Sketch indicating compaction test locations

DATE: 23/06/2022

OPERATOR: WS

SCALE: NTS

JOB No.: 9005/009

CHECKED: DM

FIGURE No: 2 of 2



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.: # 9007/036

LOCATION: SYMON BROS - The Grove SWP - Stage 49 & 50

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)	
24/06/22	37	<i>Refer to #9007/037 for approx. test site locations.</i>	1.92	21.5	97.5	✘ 1.96	23.5	175	2.0 Drier	92.0	5	0	0	
24/06/22	38		1.99	26.0	102.0	1.95	22.0	175	4.0 Wetter	117.0	0	0	100	
24/06/22	39		1.91	27.5	96.5	1.98	24.0	175	4.0 Wetter	116.0	0	0	150	
24/06/22	40		1.93	23.5	98.0	1.97	22.0	175	1.0 Wetter	105.5	0	0	0	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 10:40am Finish Time:12:15pm

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

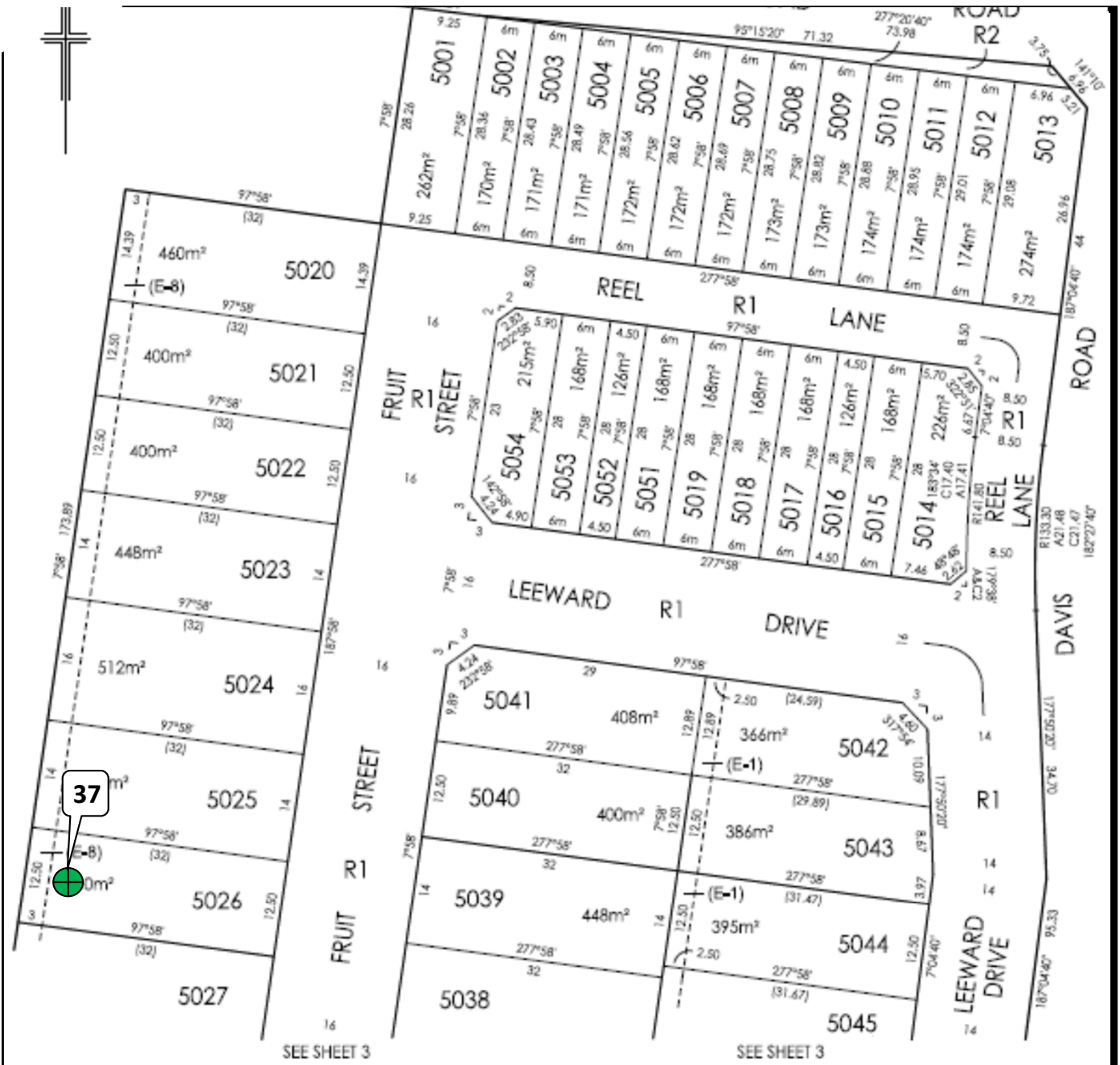


Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

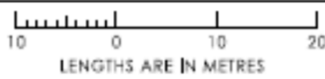
Issue Date: 29/6/2022



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 Hawthorn East Vic 3123
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 www.bpd.com.au Info@bpd.com.au

SCALE

1:500



LENGTHS ARE IN METRES

ORIGINAL SHEET SIZE A3

SHEET 2

REF: 8352/50

VERSION: 5

LICENSED SURVEYOR: SIMON COX



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

DATE: 24/06/2022

JOB No.: 9007/037

LOCATION: The Grove South West Precinct, Stage 49 & 50

OPERATOR: WS

CHECKED: DM

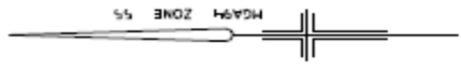
Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 1 of 3

PLAN NUMBER
PS 844194B

PLAN OF SUBDIVISION

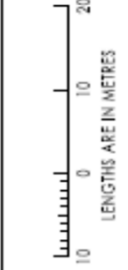


SHEET 3

ORIGINAL SHEET SIZE A3

VERSION: 5

REF: 8352/50



SCALE

Breese Pitt Dixon Pty Ltd
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GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES
ACN 102 571 077

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 49 & 50

Sketch indicating compaction test locations

DATE: 24/06/2022

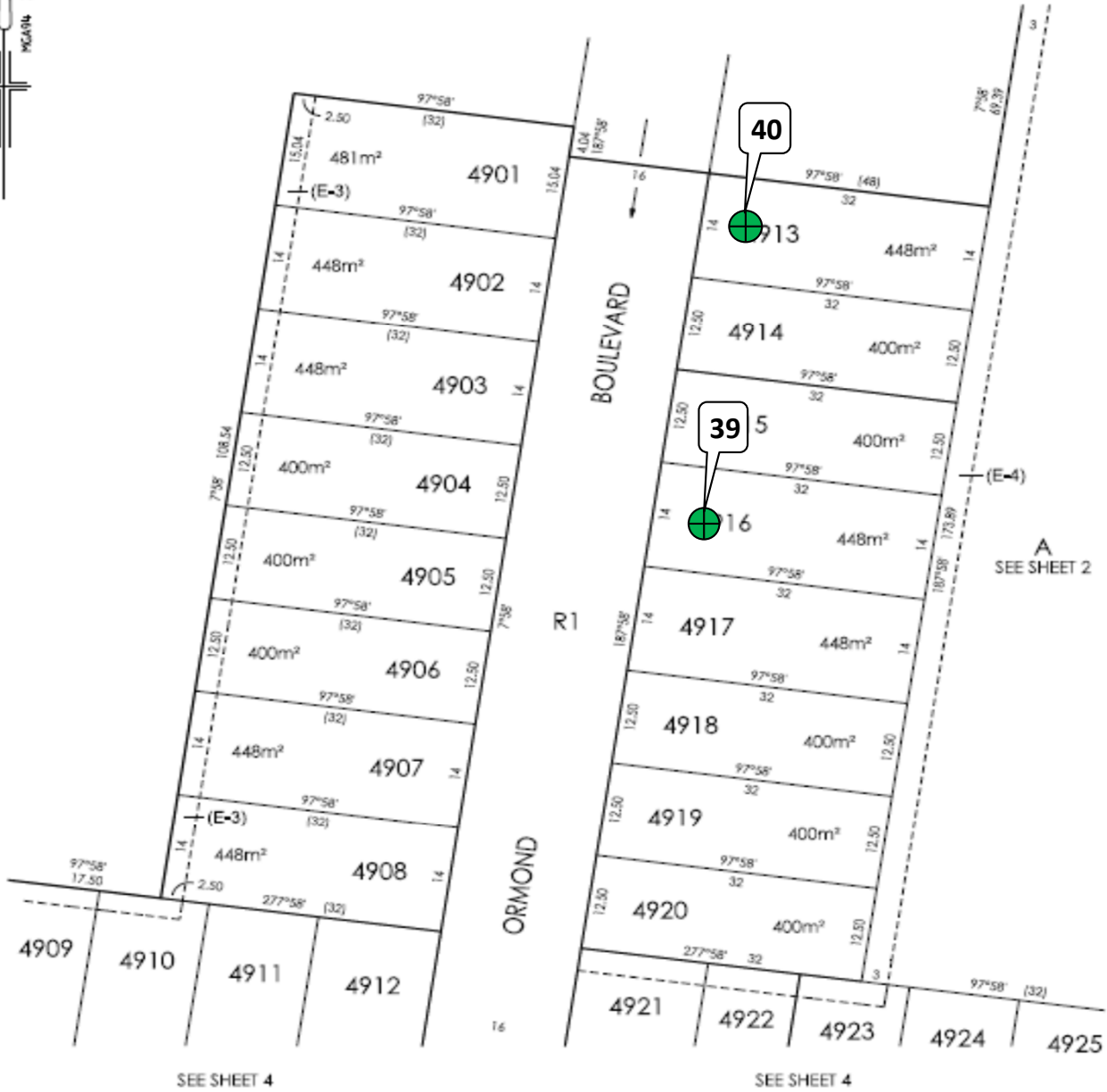
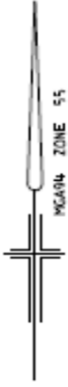
OPERATOR: WS

SCALE: NTS

JOB No.: 9007/037

CHECKED: DM

FIGURE No: 2 of 3



Breese Pitt Dixon Pty Ltd
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Hawthorn East Vic 3123
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SCALE

1:500



LENGTHS ARE IN METRES

ORIGINAL SHEET SIZE A3

SHEET 3

REF: 8352/49

VERSION: 5

LICENSED SURVEYOR: SIMON COX



**GEOTECHNICAL
LABORATORIES**

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

DATE: 24/06/2022

JOB No.: 9007/037

LOCATION: The Grove South West Precinct, Stage 49 & 50

OPERATOR: WS

CHECKED: DM

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 3 of 3



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.: # 9006/018

LOCATION: SYMON BROS - The Grove SWP - Stage 49

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)	
28/06/22	21	<i>Refer to #9006/019 for approx. test site locations.</i>	1.94	30.5	101.0	1.92	28.0	175	2.5 Wetter	109.5	0	0	300	
28/06/22	22		1.97	27.0	96.0	✘ 2.05	24.0	175	3.0 Wetter	111.5	4	0	300	
28/06/22	23		1.89	26.5	95.5	✘ 1.97	24.0	175	2.5 Wetter	110.5	8	0	400	
28/06/22	24		1.91	27.0	96.5	1.98	24.5	175	2.5 Wetter	109.0	0	0	400	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

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: 1.00pm

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

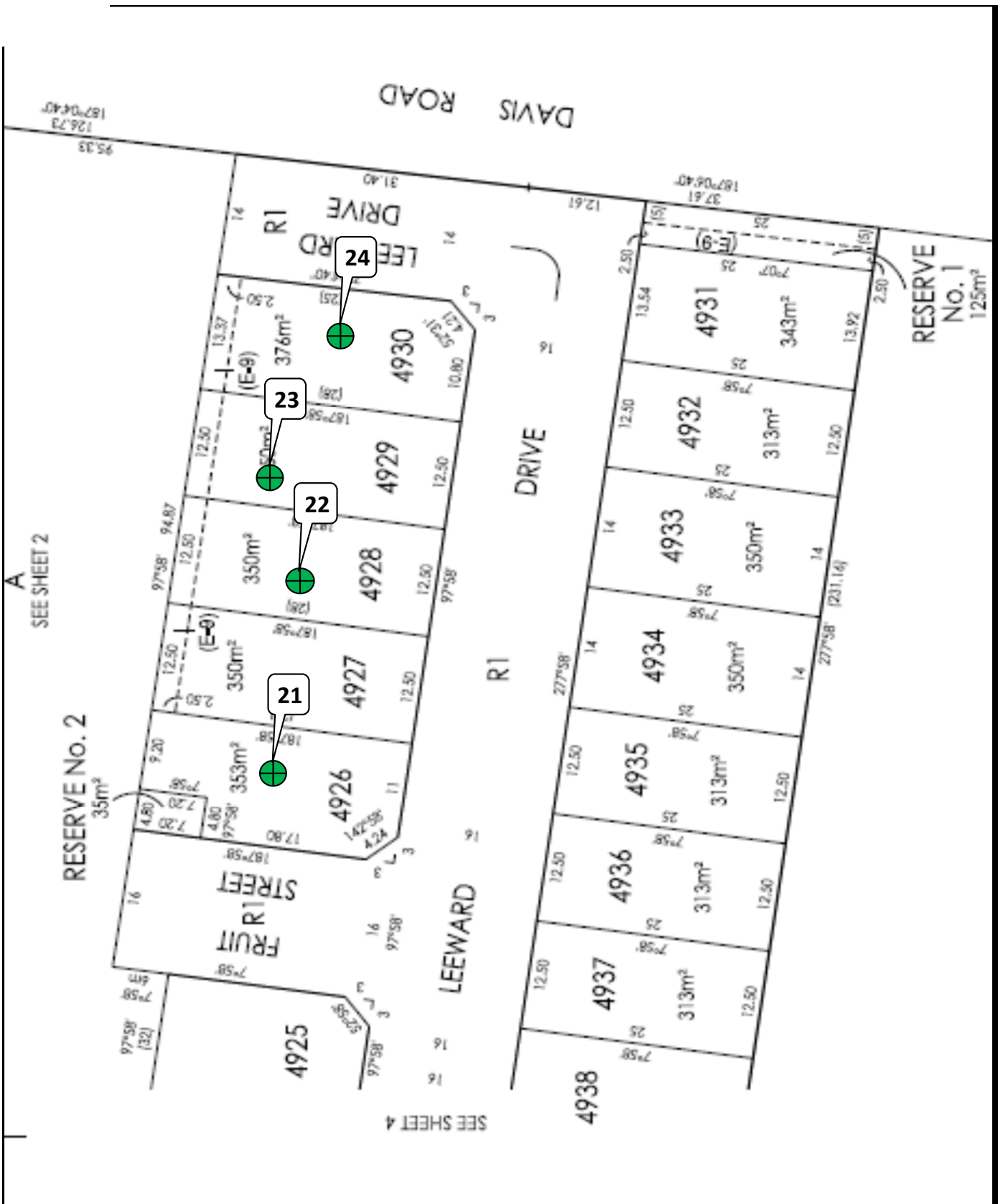


Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 5/7/2022



**GEOTECHNICAL
LABORATORIES**

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 49

Sketch indicating compaction test locations

DATE: 28/06/2022

OPERATOR: PV

SCALE: NTS

JOB No.: 9006/019

CHECKED: DM

FIGURE No: -



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.: # 9006/020

LOCATION: SYMON BROS - The Grove SWP - Stage 49/48

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)	
29/06/22	25	<i>Refer to #9006/021 for approx. test site locations.</i>	1.95	20.0	100.5	1.94	22.0	175	2.5 Drier	89.0	0	0	300	
29/06/22	26		1.98	20.5	98.0	2.02	19.5	175	0.5 Wetter	103.5	0	0	300	
29/06/22	27		1.91	27.0	96.5	1.98	23.5	175	3.5 Wetter	115.0	0	0	0	
29/06/22	28		1.85	23.5	96.5	✱ 1.92	23.5	175	0.0 Wetter	101.0	3	0	0	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
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NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 1:20pm Finish Time: 2:15pm

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

❖

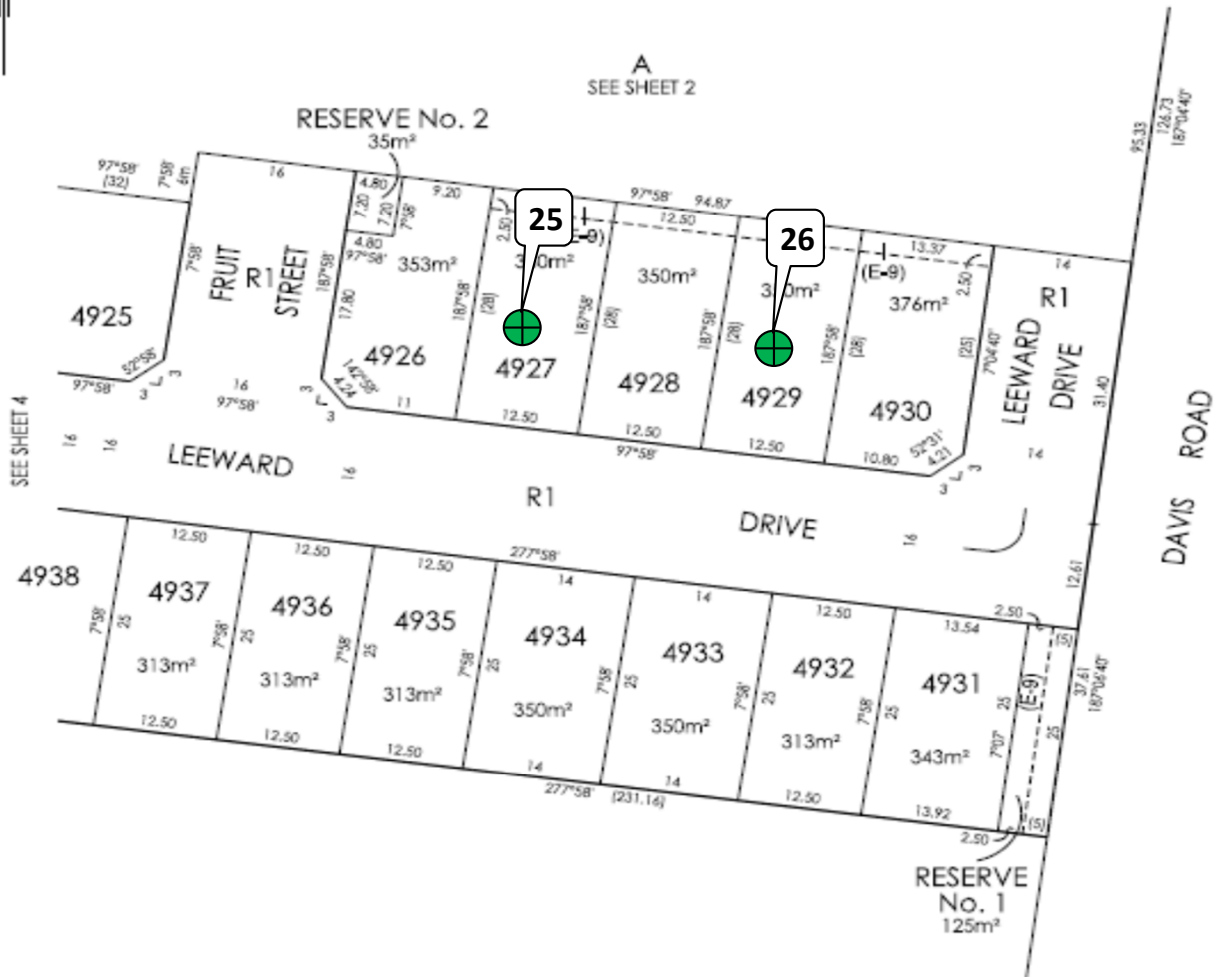


Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

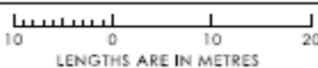
Issue Date: 7/7/2022



Breese Pitt Dixon Pty Ltd
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Hawthorn East Vic 3123
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www.bpd.com.au info@bpd.com.au

SCALE

1:500



ORIGINAL SHEET SIZE A3

SHEET 5

REF: 8352/49

VERSION: 5

LICENSED SURVEYOR: SIMON COX



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES
ACN 102 571 077

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

CLIENT: SYMON BROS

DATE: 29/06/2022

JOB No.: 9006/021

LOCATION: The Grove South West Precinct, Stage 49 & 48

OPERATOR: VN

CHECKED: DM

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 1 of 2



**GEOTECHNICAL
LABORATORIES**

**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.: # 9006/022

LOCATION: SYMON BROS - The Grove SWP - Stage 49

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)	
4/07/22	29	<i>Refer to #9006/023 for approx. test site locations.</i>	1.89	23.0	97.5	1.94	24.0	175	1.0 Drier	96.0	0	0	600	
4/07/22	30		1.91	29.0	97.5	1.96	26.5	175	2.5 Wetter	110.0	0	0	500	
4/07/22	31		1.93	28.0	98.5	1.96	25.5	175	2.5 Wetter	110.0	0	0	500	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-
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NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 7:50am Finish Time:8:15am

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)

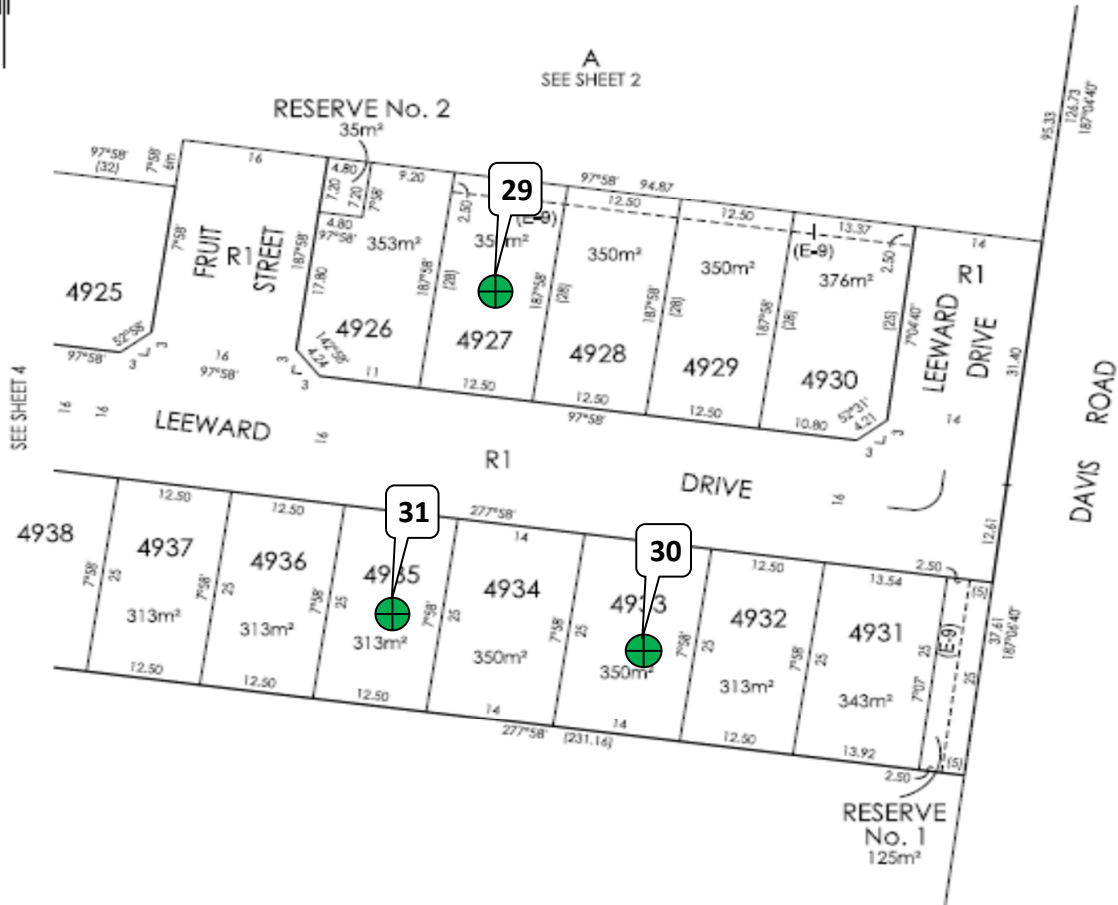
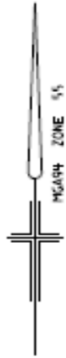



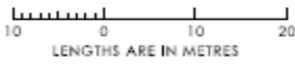
*Accredited for compliance with ISO/IEC
17025 - Testing*

NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 8/7/2022



 <p>Breese Pitt Dixon Pty Ltd 1/19 Cato Street Hawthorn East Vic 3123 Ph: 8623 2300 Fax: 8623 2310 www.bpd.com.au info@bpd.com.au</p>	SCALE 1:500	 <p>LENGTHS ARE IN METRES</p>	ORIGINAL SHEET SIZE A3 REF: 8352/49	SHEET 5 VERSION: 5
	LICENSED SURVEYOR: SIMON COX			



GEOTECHNICAL LABORATORIES
ACN 102 571 077
14 Ravenhall Way, Ravenhall, Vic 3023
Email: info@geolab.com.au PH: (03) 8361-9140

CLIENT: SYMON BROS
LOCATION: The Grove South West Precinct, Stage 49
Sketch indicating compaction test locations

DATE: 04/07/2022	JOB No.: 9006/023
OPERATOR: PV	CHECKED: DM
SCALE: NTS	FIGURE No: -



GEOTECHNICAL LABORATORIES
 ACN 102 571 077
 14 Ravenhall Way, Ravenhall, Vic 3023
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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9005/010

LOCATION: SYMON BROS - The Grove SWP - Stage 48 & 49

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)	
5/07/22	18	<i>Refer to #9005/011 for approx. test site locations.</i>	2.07	23.5	106.0	1.95	23.5	175	0.0 Drier	100.0	0	0	600	
5/07/22	19		1.97	22.0	101.0	1.95	22.5	175	0.5 Drier	98.0	0	0	800	
5/07/22	20		2.06	24.0	105.5	1.95	24.5	175	0.0 Drier	99.0	0	0	800	
5/07/22	21		2.08	24.0	105.0	1.99	23.0	175	1.0 Wetter	104.5	0	0	800	
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-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 8:45am Finish Time:9:45am

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)

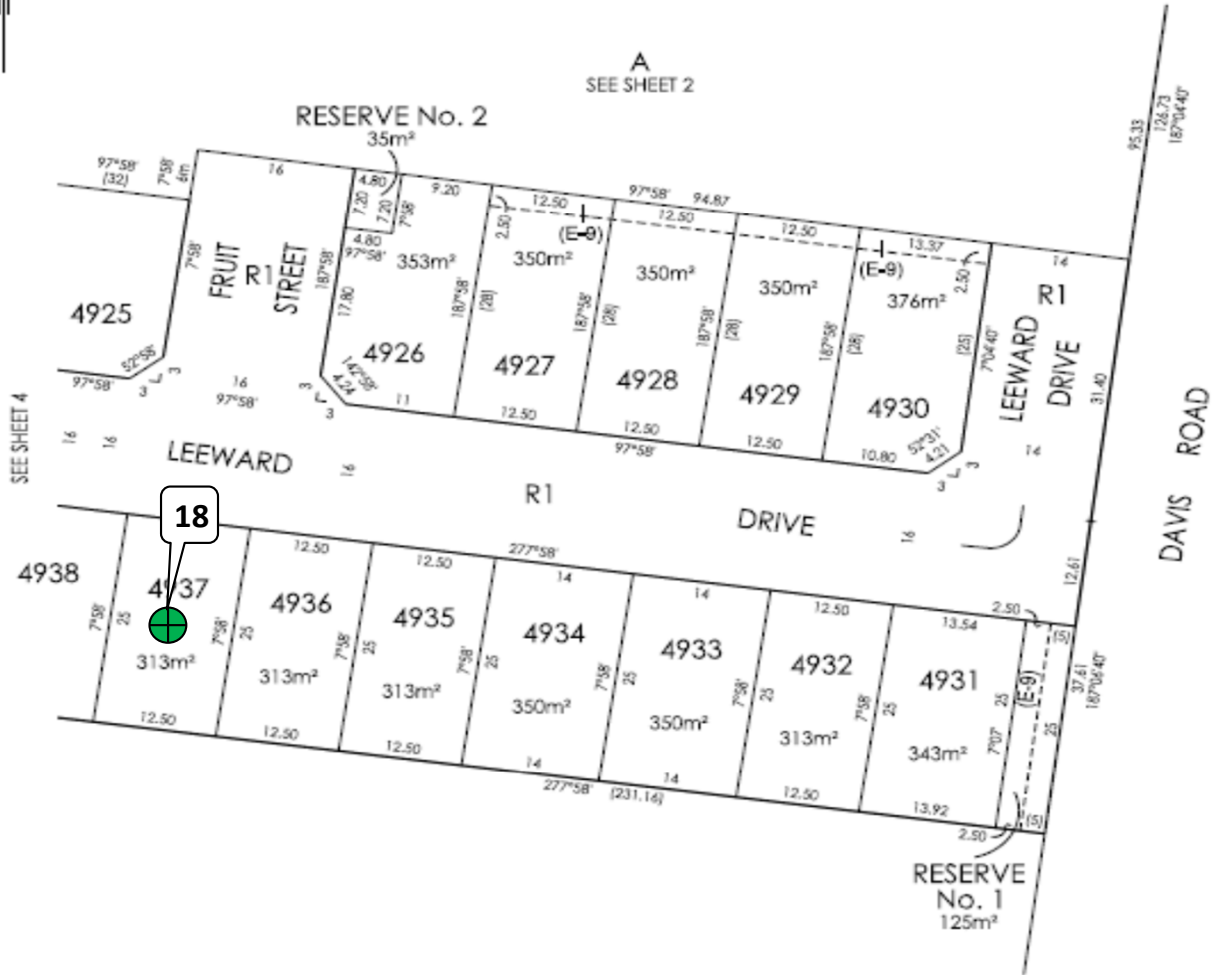


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NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

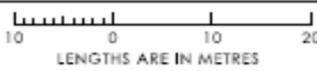
Issue Date: 11/7/2022



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Hawthorn East Vic 3123
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SCALE

1:500



ORIGINAL SHEET SIZE A3

SHEET 5

REF: 8352/49

VERSION: 5

LICENSED SURVEYOR: SIMON COX



**GEOTECHNICAL
LABORATORIES**

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

DATE: 05/07/2022

JOB No.: 9005/011

LOCATION: The Grove South West Precinct, Stage 48 & 49

OPERATOR: BM

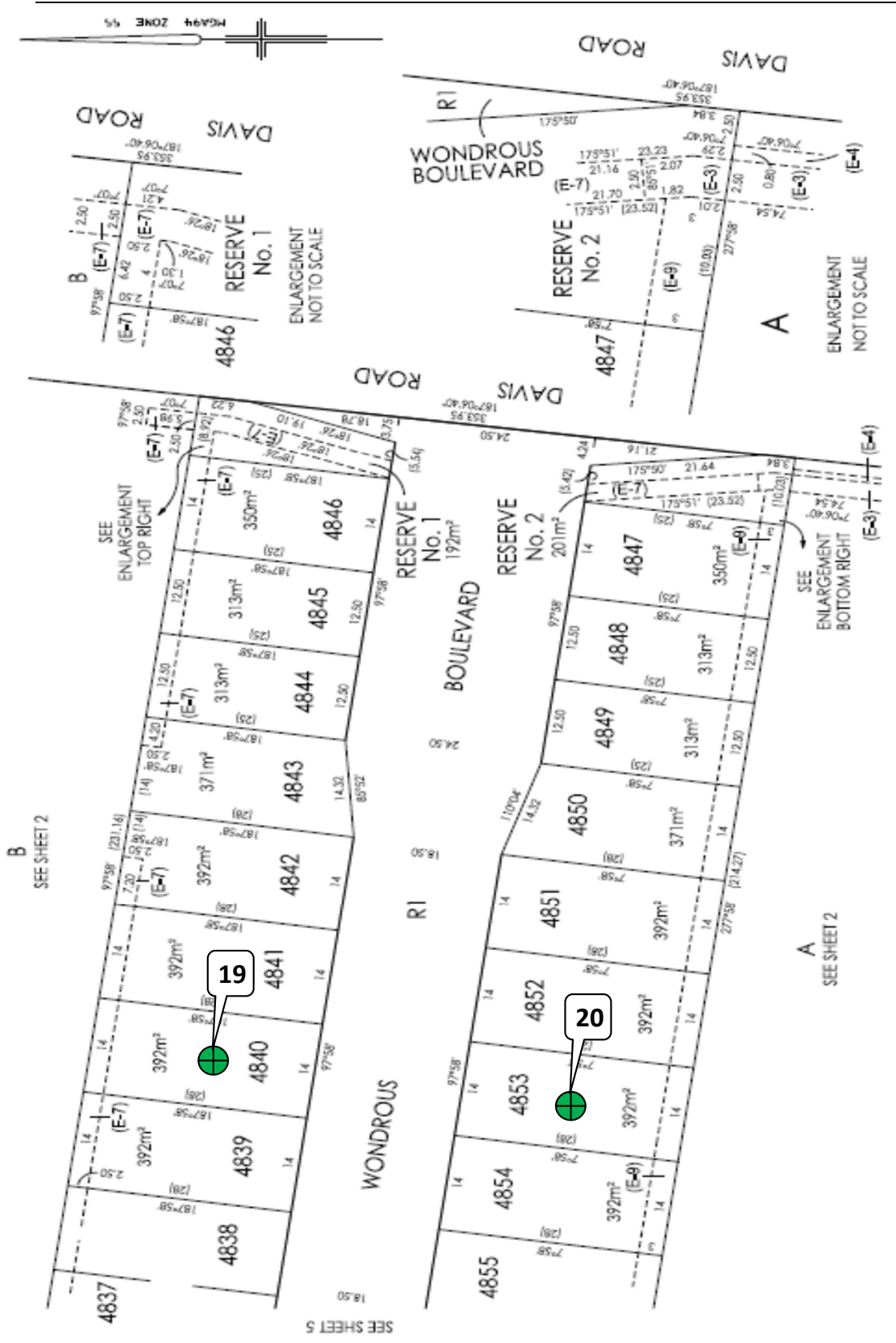
CHECKED: DM

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 1 of 3

PLAN OF SUBDIVISION
 PLAN NUMBER
 PS 844183G



REF: 8352148	VERSION: 4	ORIGINAL SHEET SIZE A3	SHEET 6
LICENSED SURVEYOR: SIMON COX			
<p>LENGTHS ARE IN METRES</p>			
SCALE	1:500		
<p>Breese Pitt Dixon Pty Ltd 1/19 Cato Street Hawthorn East, Vic. 3123 PH: 8623 2300 Fax: 8623 2310 www.bpd.com.au info@bpd.com.au</p>			



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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: SYMON BROS
LOCATION: The Grove South West Precinct, Stage 48 & 49
 Sketch indicating compaction test locations

DATE: 05/07/2022
OPERATOR: BM
SCALE: NTS

JOB No.: 9005/011
CHECKED: DM
FIGURE No: 2 of 3

PLAN OF SUBDIVISION
 PLAN NUMBER
 PS 844183G



REF: 8352/48	VERSION: 4	ORIGINAL SHEET SIZE: A3	SHEET 5
LICENSED SURVEYOR: SIMON COX			
SCALE 1:500		LENGTHS ARE IN METRES 0 10 20	
Breesa Pitt Dixon Pty Ltd 1719 Cato Street Hawthorn East, Vic 3123 Ph: 8823 2300 Fax: 8823 2310 www.bpd.com.au info@bpd.com.au			



GEOTECHNICAL LABORATORIES
 ACN 102 571 077

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

CLIENT: SYMON BROS
LOCATION: The Grove South West Precinct, Stage 48 & 49
 Sketch indicating compaction test locations

DATE: 05/07/2022
OPERATOR: BM
SCALE: NTS

JOB No.: 9005/011
CHECKED: DM
FIGURE No: 3 of 3



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.: # 9006/026

LOCATION: SYMON BROS - The Grove, South West Precinct, Stage 49

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)	
8/07/22	32	<i>Refer to #9006/027 for approx. test site locations.</i>	2.08	22.0	103.5	✘ 2.01	24.5	175	2.5 Drier	90.0	15	0	100	
8/07/22	33		1.97	21.0	101.0	1.95	23.5	175	2.5 Drier	89.5	0	0	200	
8/07/22	34		1.93	24.0	98.5	✘ 1.96	24.0	175	0.0 Drier	100.0	9	0	400	
8/07/22	35		2.02	21.5	100.0	✘ 2.01	21.0	175	0.0 Wetter	101.0	4	0	600	
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-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 11:55am Finish Time: 1:10pm

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

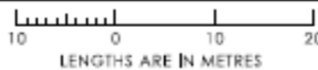
MICK CROWE
 (Approved Signatory)

Issue Date: 18/7/2022



Breese Pitt Dixon Pty Ltd
1/19 Cato Street

SCALE
1:500



ORIGINAL SHEET SIZE A3
REF: 8352/49
SHEET VERSION:



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

DATE: 8/07/2022

JOB No.: 9006/027

LOCATION: The Grove South West Precinct, Stage 49

OPERATOR: BM

CHECKED: KK

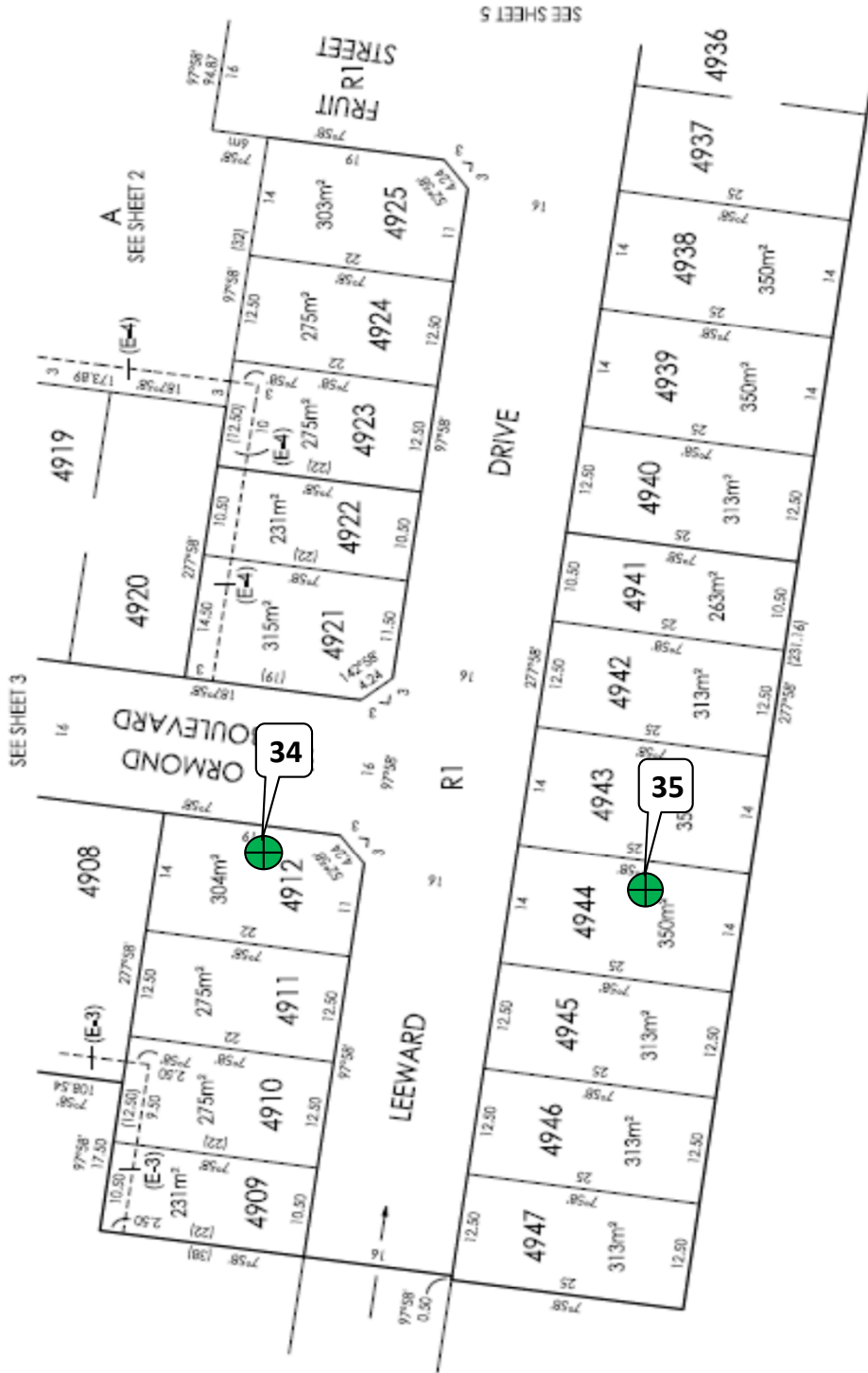
Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 1 of 2

PLAN NUMBER
PS 844185C

PLAN OF SUBDIVISION



REF: 8352/49	VERSION: 5	ORIGINAL SHEET SIZE A3	SHEET 4
LICENSED SURVEYOR: SIMON COX			



see Pitt Dixon Pty Ltd
1119 Cain Street
Whom East V/B 3123
23 25th Flw 8823 9150



**GEOTECHNICAL
LABORATORIES**

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 49

Sketch indicating compaction test locations

DATE: 8/07/2022

OPERATOR: BM

SCALE: NTS

JOB No.: 9006/027

CHECKED: KK

FIGURE No: 2 of 2



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.: # 9006/028

LOCATION: SYMON BROS - The Grove, South West Precinct, Stage 49 & 45

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)	
12/07/22	36	<i>Refer to #9006/029 for approx. test site locations.</i>	1.89	21.5	96.0	✘ 1.97	23.0	175	1.5 Drier	93.5	5	0	200	
12/07/22	37		2.00	22.0	98.5	✘ 2.03	21.0	175	0.5 Wetter	103.5	10	0	FSL	
12/07/22	38		1.99	26.0	102.5	1.94	24.5	175	1.5 Wetter	106.0	0	0	300	
12/07/22	39		1.89	24.5	100.0	1.89	22.5	175	2.0 Wetter	109.0	0	0	300	
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NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 11:00am Finish Time: 11:30am

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

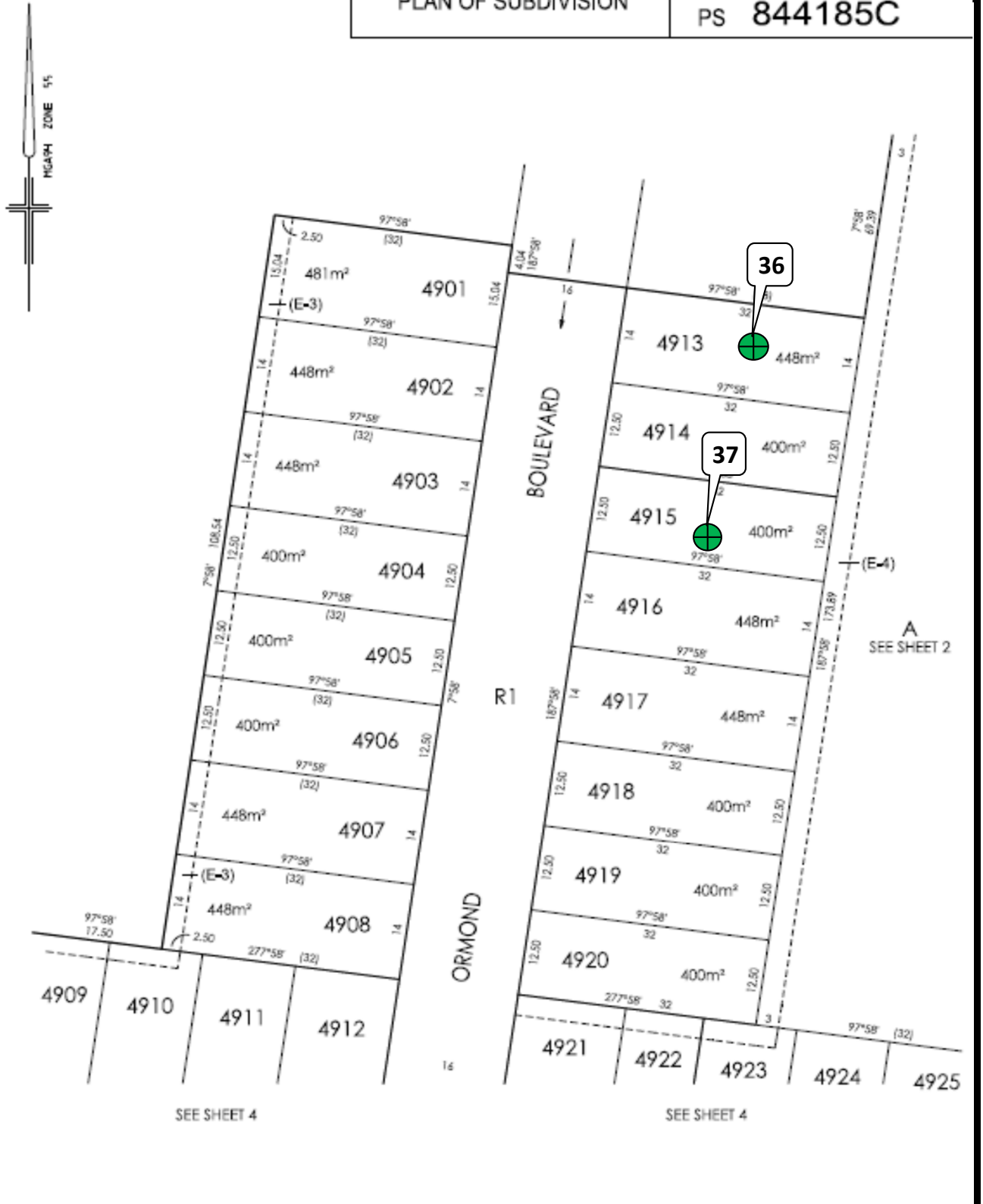


*Accredited for compliance with ISO/IEC
 17025 - Testing*

NATA Accredited Laboratory Number 14561

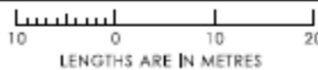
MICK CROWE
 (Approved Signatory)

Issue Date: 19/7/2022



Breese Pitt Dixon Pty Ltd
1/19 Cato Street

SCALE
1:500



ORIGINAL SHEET SIZE A3
REF: 8352/49
SHEET VERSION:



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

DATE: 12/07/2022

JOB No.: 9006/029

LOCATION: The Grove South West Precinct, Stage 49 & 45

OPERATOR: PV

CHECKED: KK

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 1 of 2

PLAN OF SUBDIVISION

PLAN NUMBER
PS 844125W



**GEOTECHNICAL
LABORATORIES**

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 49 & 45

Sketch indicating compaction test locations

DATE: 12/07/2022

OPERATOR: PV

SCALE: NTS

JOB No.: 9006/029

CHECKED: KK

FIGURE No: 2 of 2



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.: # 9005/021

LOCATION: SYMON BROS - The Grove, South West Precinct, Stage 48 & 49

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)	
16/07/22	33	<i>Refer to #9005/022 for approx. test site locations.</i>	1.93	24.0	98.5	✘ 1.96	25.5	175	1.5 Drier	93.0	8	0	300	
16/07/22	34		1.87	24.0	95.0	✘ 1.97	23.5	175	0.5 Wetter	102.0	8	0	300	
16/07/22	35		1.97	22.0	101.5	✘ 1.93	24.5	175	2.5 Drier	89.0	10	0	0	
16/07/22	36		1.89	29.0	98.0	✘ 1.93	28.5	175	1.0 Wetter	102.5	11	0	500	
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-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 10:40am Finish Time: 11:20am

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

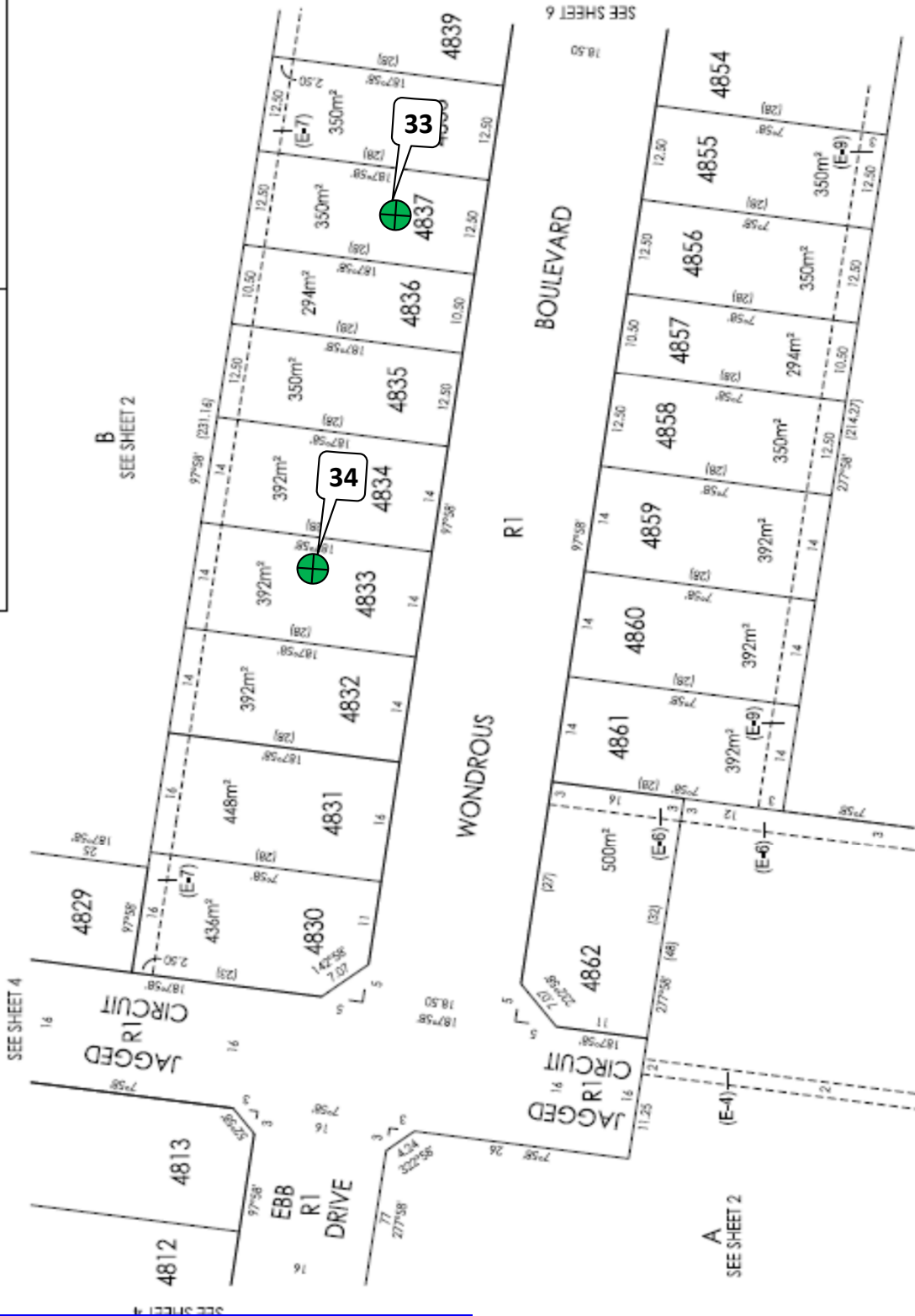
NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 22/7/2022

PLAN NUMBER
PS 844183G

PLAN OF SUBDIVISION



REF: 8352/48	VERSION: 4	ORIGINAL SHEET SIZE A3	SHEET 5
LICENSED SURVEYOR: SIMON COX			



SCALE
1:500

see Pitt Dixon Pty Ltd
1119 Cain Street
Melbourn East Vic 3123
03 9258 5500 Fax 03 9258 9150



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 48 & 49

Sketch indicating compaction test locations

DATE: 16/07/2022

OPERATOR: TC

SCALE: NTS

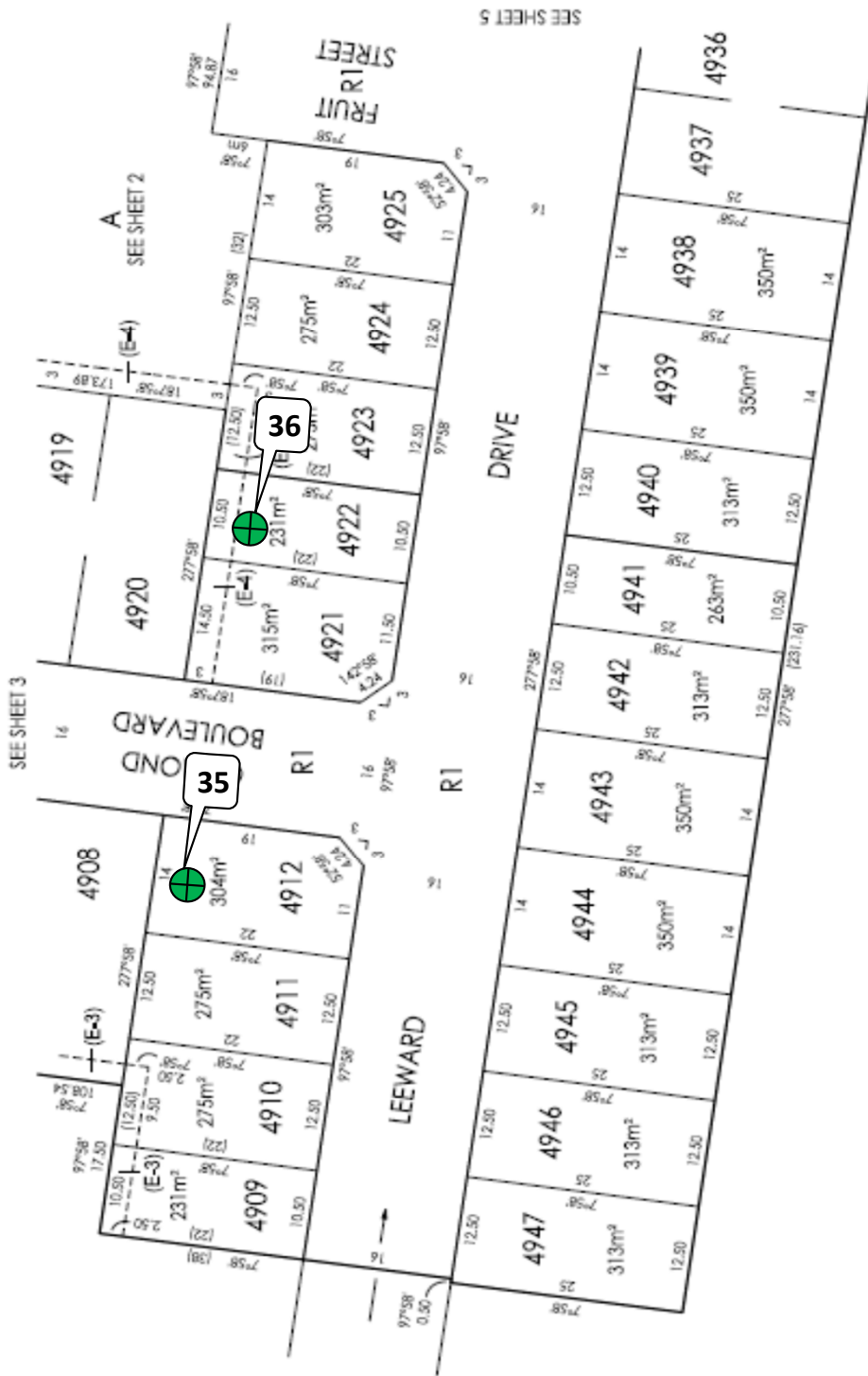
JOB No.: 9005/022

CHECKED: KK

FIGURE No: 1 of 2

PLAN NUMBER
PS 844185C

PLAN OF SUBDIVISION



REF: 8352/49	VERSION: 5	ORIGINAL SHEET SIZE A3	SHEET 4
LICENSED SURVEYOR: SIMON COX			



use Pitt Dixon Pty Ltd
1/19 Cain Street
Whom East V/c 3123
105 050th Exp. 8825 9540



**GEOTECHNICAL
LABORATORIES**

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 48 & 49

Sketch indicating compaction test locations

DATE: 16/07/2022

OPERATOR: TC

SCALE: NTS

JOB No.: 9005/022

CHECKED: KK

FIGURE No: 2 of 2



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.: # 9005/024

LOCATION: SYMON BROS - The Grove, South West Precinct, Stage 48 & 49

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)	
18/07/22	37	<i>Refer to #9005/025 for approx. test site locations.</i>	2.02	20.0	101.5	✘ 1.99	21.0	175	1.5 Drier	93.0	5	0	300	
18/07/22	38		2.03	22.5	101.5	2.00	23.0	175	0.5 Drier	98.0	0	0	500	
18/07/22	39		2.13	18.5	104.0	✘ 2.05	21.0	175	2.5 Drier	87.5	16	0	600	
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-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 1:50pm Finish Time: 2:20pm

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)

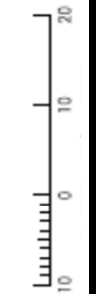
Issue Date: 22/7/2022

PLAN NUMBER
PS 844185C

PLAN OF SUBDIVISION



SCALE
1:500



REF: 8352/49
VERSION: 5
LICENSED SURVEYOR: SIMON COX

ORIGINAL SHEET SIZE A3
SHEET 4



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES
ACN 102 571 077

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 48 & 49

Sketch indicating compaction test locations

DATE: 18/07/2022

OPERATOR: BM

SCALE: NTS

JOB No.: 9005/025

CHECKED: KK

FIGURE No: 1 of 2

Use Pitt Dixon Pty Ltd
1/19 Caino Street
Whom East V/c 3123
100 03000 Fax 0825 0340



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.: # 9006/030

LOCATION: SYMON BROS - The Grove, South West Precinct, Stage 49 & 50

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)	
20/07/22	40	<i>Refer to #9006/031 for approx. test site locations.</i>	2.04	25.5	104.0	1.95	25.5	175	0.5 Wetter	101.0	0	0	0	
20/07/22	41		1.98	21.5	100.0	✘ 1.98	23.0	175	1.5 Drier	92.5	12	0	0	
20/07/22	42		2.02	20.5	101.0	✘ 2.00	23.0	175	2.5 Drier	89.5	7	0	0	
20/07/22	43		2.05	24.5	102.0	2.01	24.0	175	0.5 Wetter	102.0	0	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: 1:10pm

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

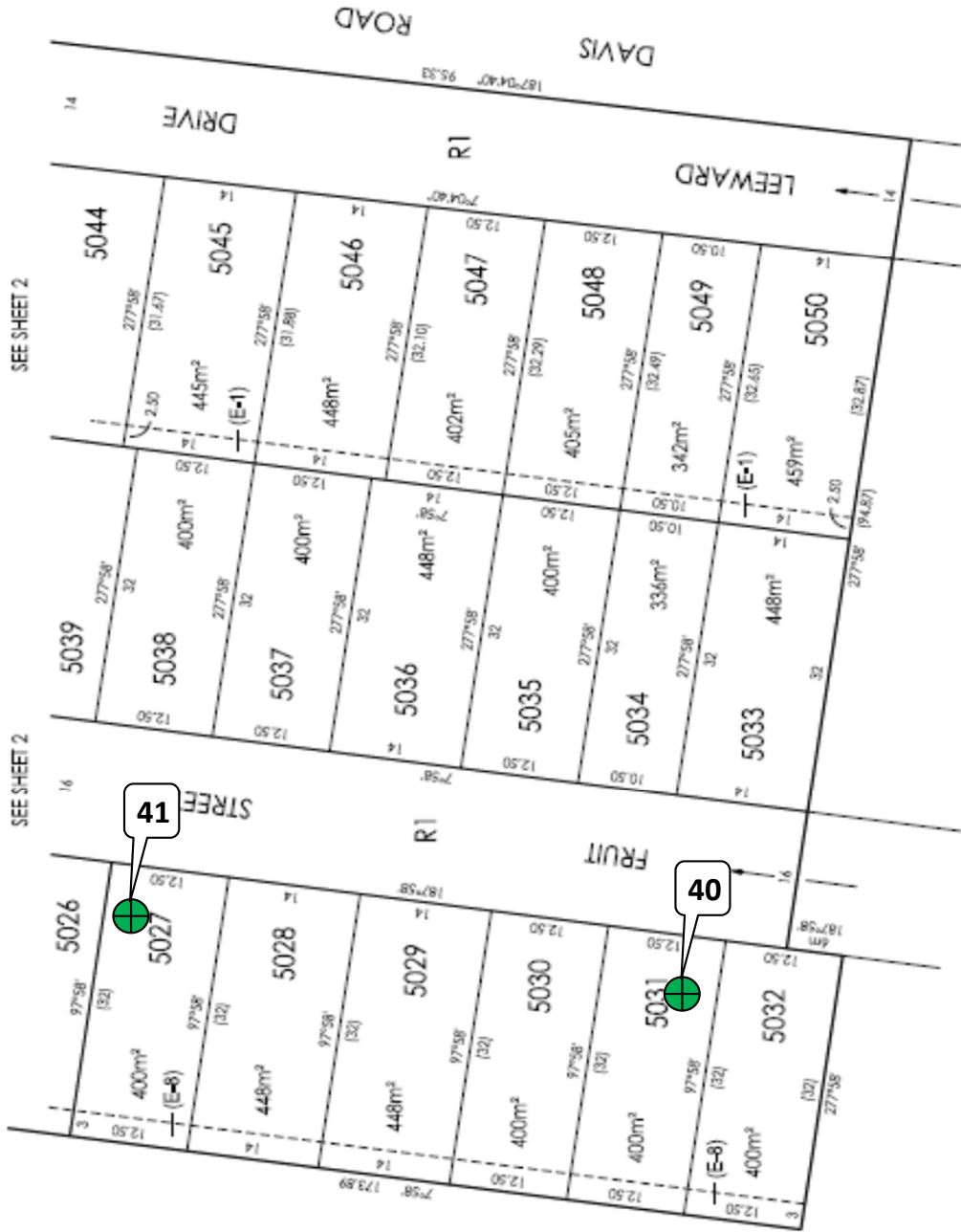
NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 26/7/2022

PLAN NUMBER
PS 844194B

PLAN OF SUBDIVISION



SHEET 3

ORIGINAL SHEET SIZE A3

VERSION: 5

REF: 8352/50



SCALE 1:500

see Pitt Dixon Pty Ltd
1/19 Cain Street
Melbom East V/c 3123
03 9328 0000 Fax: 03 9328 0150

LICENSED SURVEYOR: SIMON COX



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES
ACN 102 571 077

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 49 & 50

Sketch indicating compaction test locations

DATE: 20/07/2022

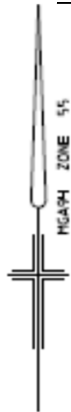
OPERATOR: BM

SCALE: NTS

JOB No.: 9006/031

CHECKED: KK

FIGURE No: 1 of 2



Breese Pitt Dixon Pty Ltd
1/19 Cato Street

SCALE
1:500



ORIGINAL SHEET SIZE A3
REP: 8352/49
SHEET
VERSION:



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

DATE: 20/07/2022

JOB No.: 9006/031

LOCATION: The Grove South West Precinct, Stage 49 & 50

OPERATOR: BM

CHECKED: KK

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 2 of 2



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.: # 9005/026

LOCATION: SYMON BROS - The Grove, South West Precinct, Stage 48, 49 & 51 Wetlands

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)
21/07/22	40	<i>Refer to #9005/027 for approx. test site locations.</i>	1.92	32.0	98.5	1.94	28.5	175	3.0 Wetter	111.0	0	0	300
21/07/22	41		2.05	23.5	105.0	1.96	22.5	175	1.0 Wetter	104.5	0	0	0
21/07/22	42		1.91	23.0	100.5	1.90	21.0	175	1.5 Wetter	108.0	0	0	0
21/07/22	43		2.00	22.5	104.0	✘ 1.92	25.0	175	2.5 Drier	89.5	4	0	0
21/07/22	44		1.96	20.0	99.0	✘ 1.98	21.5	175	1.5 Drier	92.0	5	0	0
-	-		-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 11:50am 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)

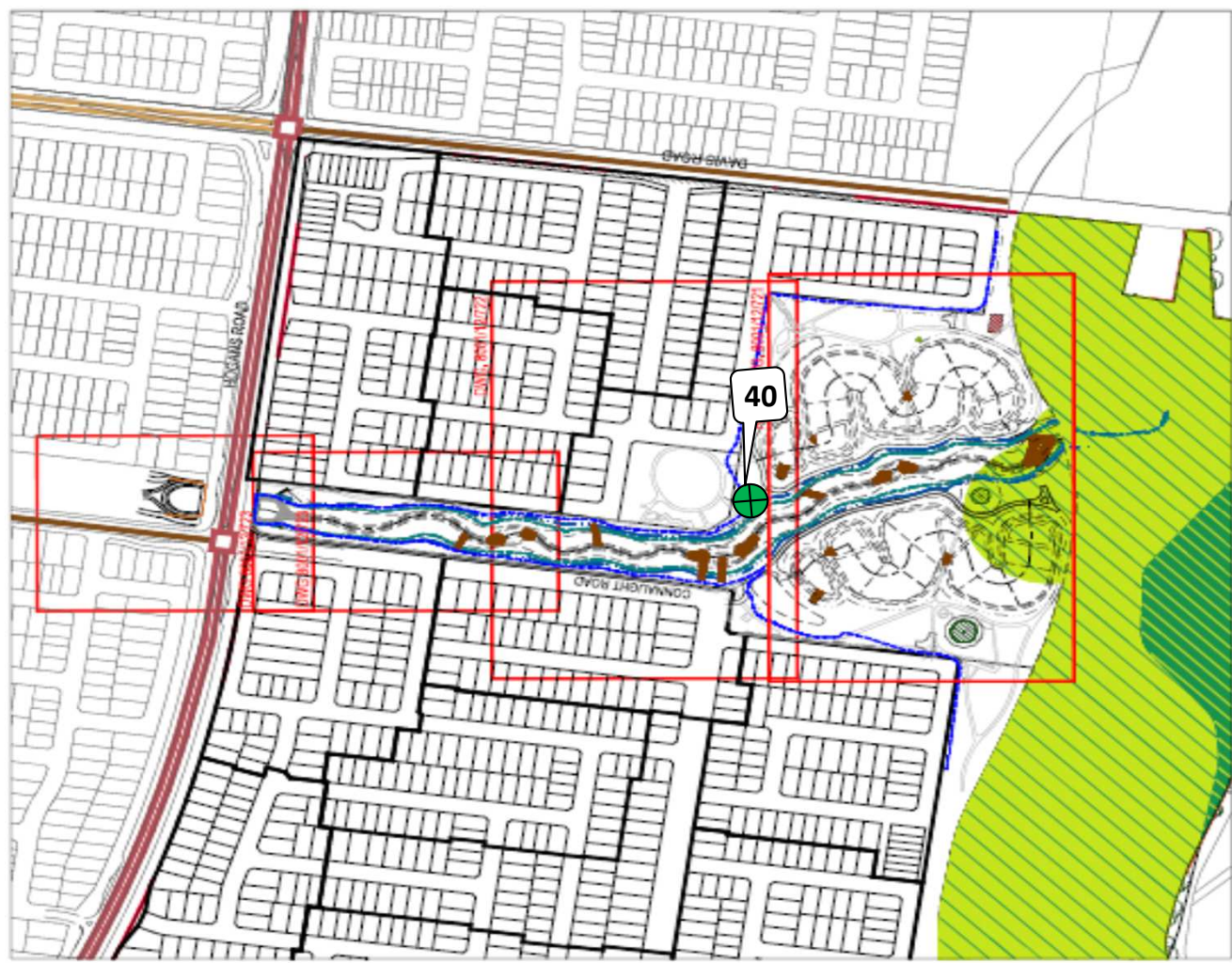
Issue Date: 27/7/2022

WARNING
 This drawing is preliminary and
 is not to be used for construction
 purposes without the written
 consent of the Engineer.
 Date: 21/07/2022

Melbourne Water
 Infrastructure City, Vic



DATE: 21/07/2022
 DRAWN BY: J. GARDNER
 CHECKED BY: J. GARDNER
 APPROVED BY: J. GARDNER
 SCALE: 1:1000
 SHEET: 1 OF 3



**GEOTECHNICAL
 LABORATORIES**

**GEOTECHNICAL LABORATORIES
 ACN 102 571 077**

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 48, 49 & 51 Wetlands

Sketch indicating compaction test locations

DATE: 21/07/2022

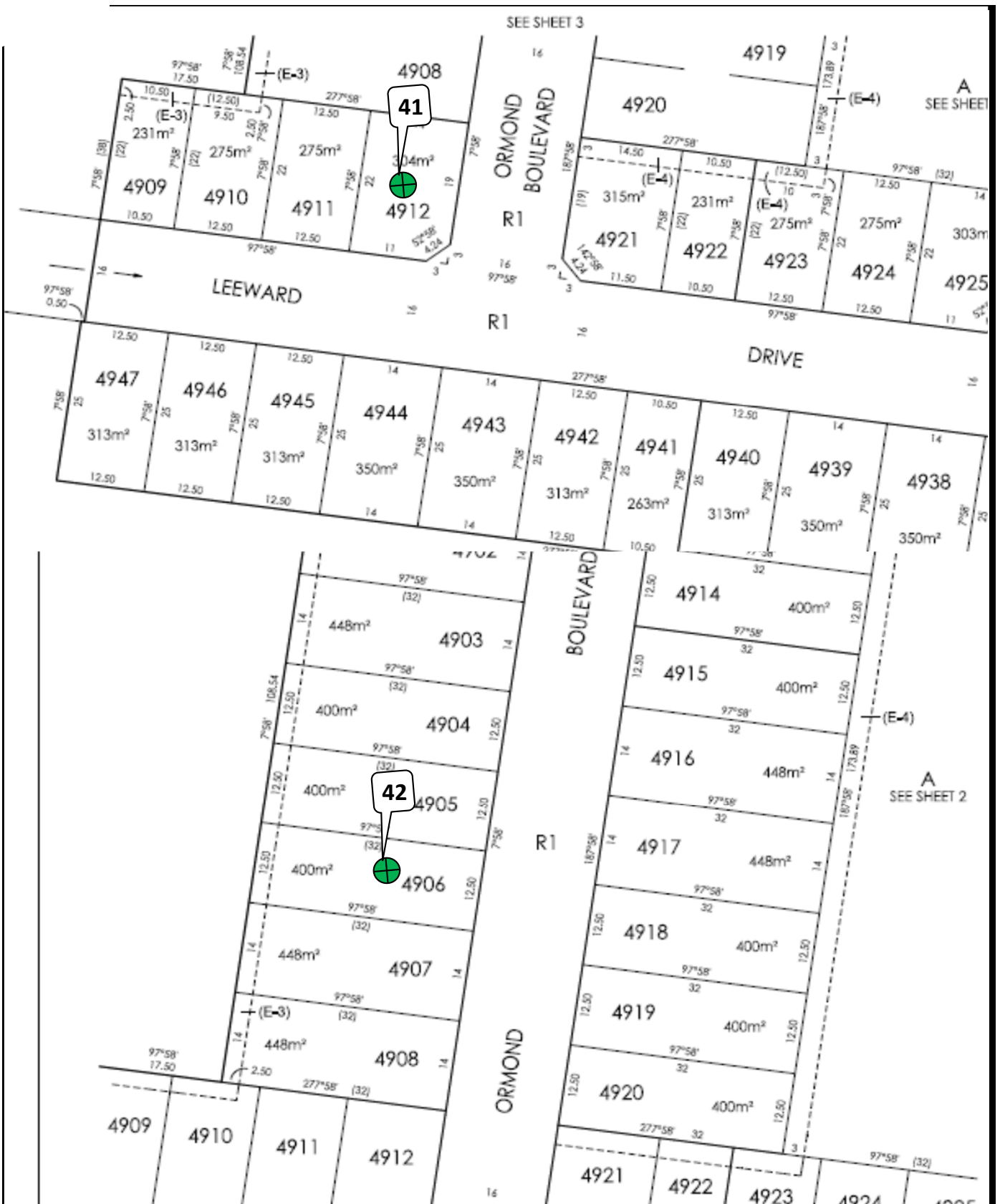
OPERATOR: BM

SCALE: NTS

JOB No.: 9005/027

CHECKED: KK

FIGURE No: 1 of 3



**GEOTECHNICAL
LABORATORIES**

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 48, 49 & 51 Wetlands

Sketch indicating compaction test locations

DATE: 21/07/2022

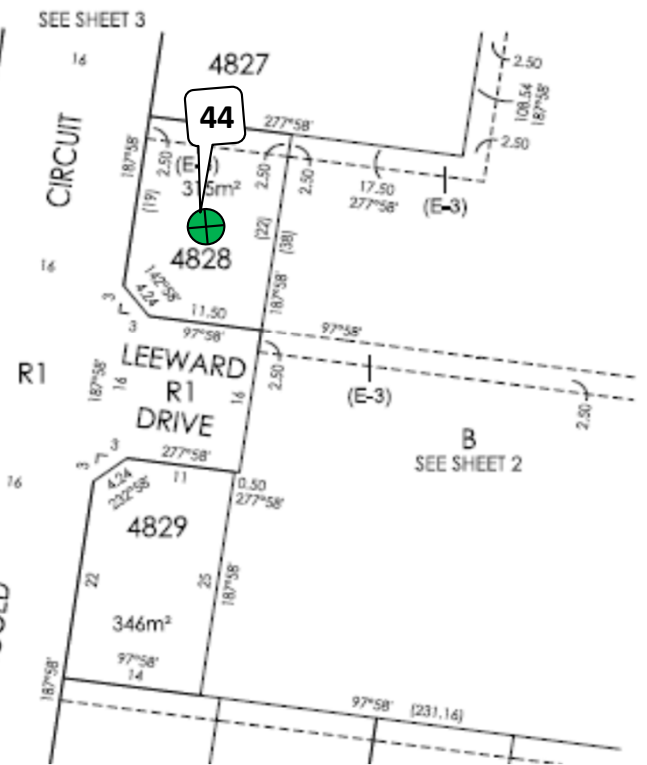
JOB No.: 9005/027

OPERATOR: BM

CHECKED: KK

SCALE: NTS

FIGURE No: 2 of 3



GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

DATE: 21/07/2022

JOB No.: 9005/027

LOCATION: The Grove South West Precinct, Stage 48, 49 & 51 Wetlands

OPERATOR: BM

CHECKED: KK

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 3 of 3



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.: # 9006/032

LOCATION: SYMON BROS - The Grove, South West Precinct, Stage 49

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)	
22/07/22	44	<i>Refer to #9006/033 for approx. test site locations.</i>	1.98	24.0	98.5	✘ 2.00	24.0	175	0.0 Drier	100.0	6	0	0	
22/07/22	45		1.97	25.0	100.0	1.97	23.5	175	1.5 Wetter	106.5	0	0	0	
22/07/22	46		1.94	25.0	96.0	2.01	22.0	175	3.0 Wetter	113.5	0	0	0	
22/07/22	47		1.96	22.5	98.0	✘ 2.00	21.5	175	1.0 Wetter	104.5	6	0	0	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 12:40pm Finish Time: 1:45pm

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

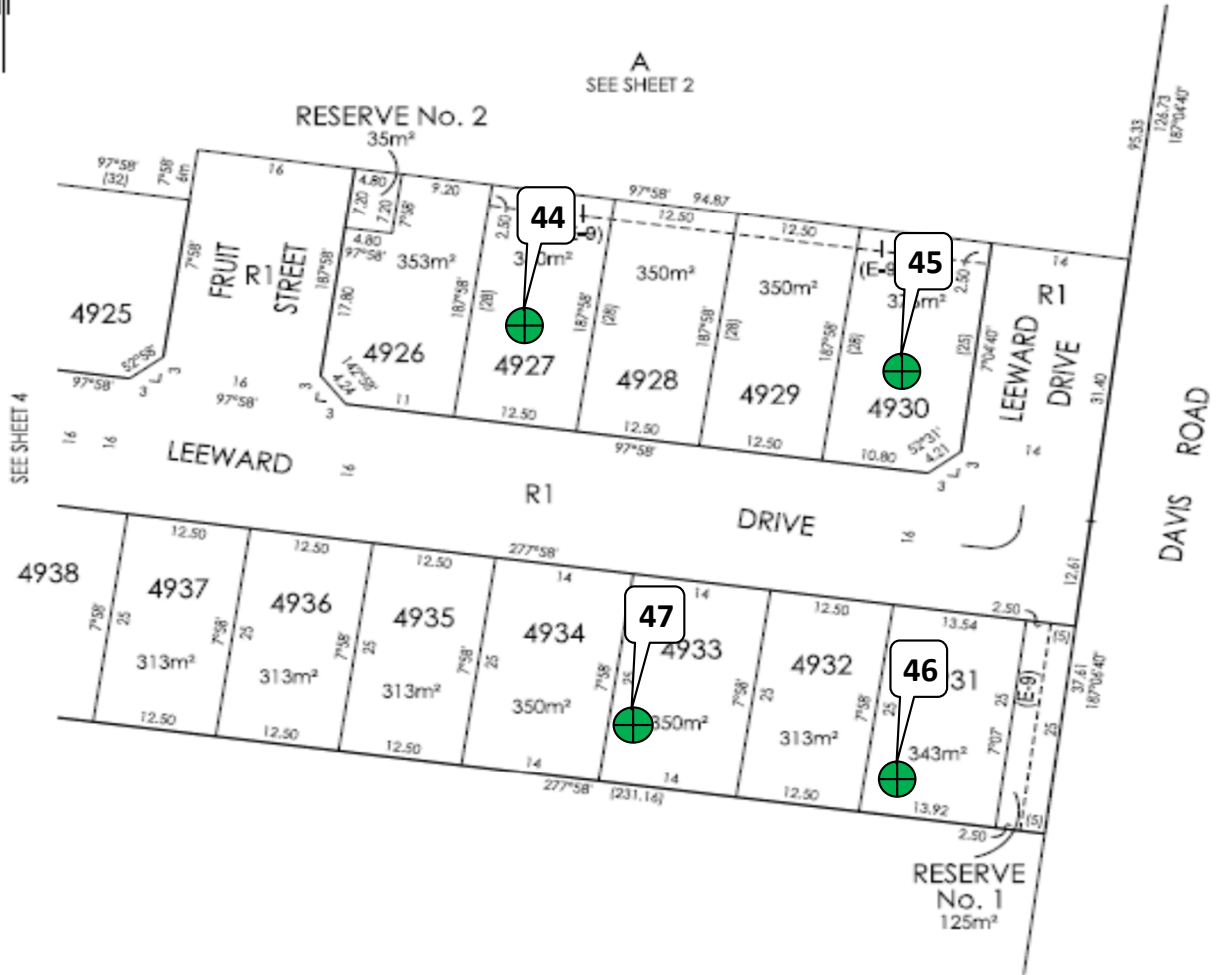


Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 3/8/2022



Breese Pitt Dixon Pty Ltd
1/19 Calo Street
Hawthorn East Vic 3123
Ph: 8823 2300 Fax: 8823 2310
www.bpd.com.au info@bpd.com.au

SCALE

1:500



ORIGINAL SHEET SIZE A3

REF: 8352/49

SHEET 5

VERSION: 5

LICENSED SURVEYOR: SIMON COX



**GEOTECHNICAL
LABORATORIES**

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 49

Sketch indicating compaction test locations

DATE: 22/07/2022

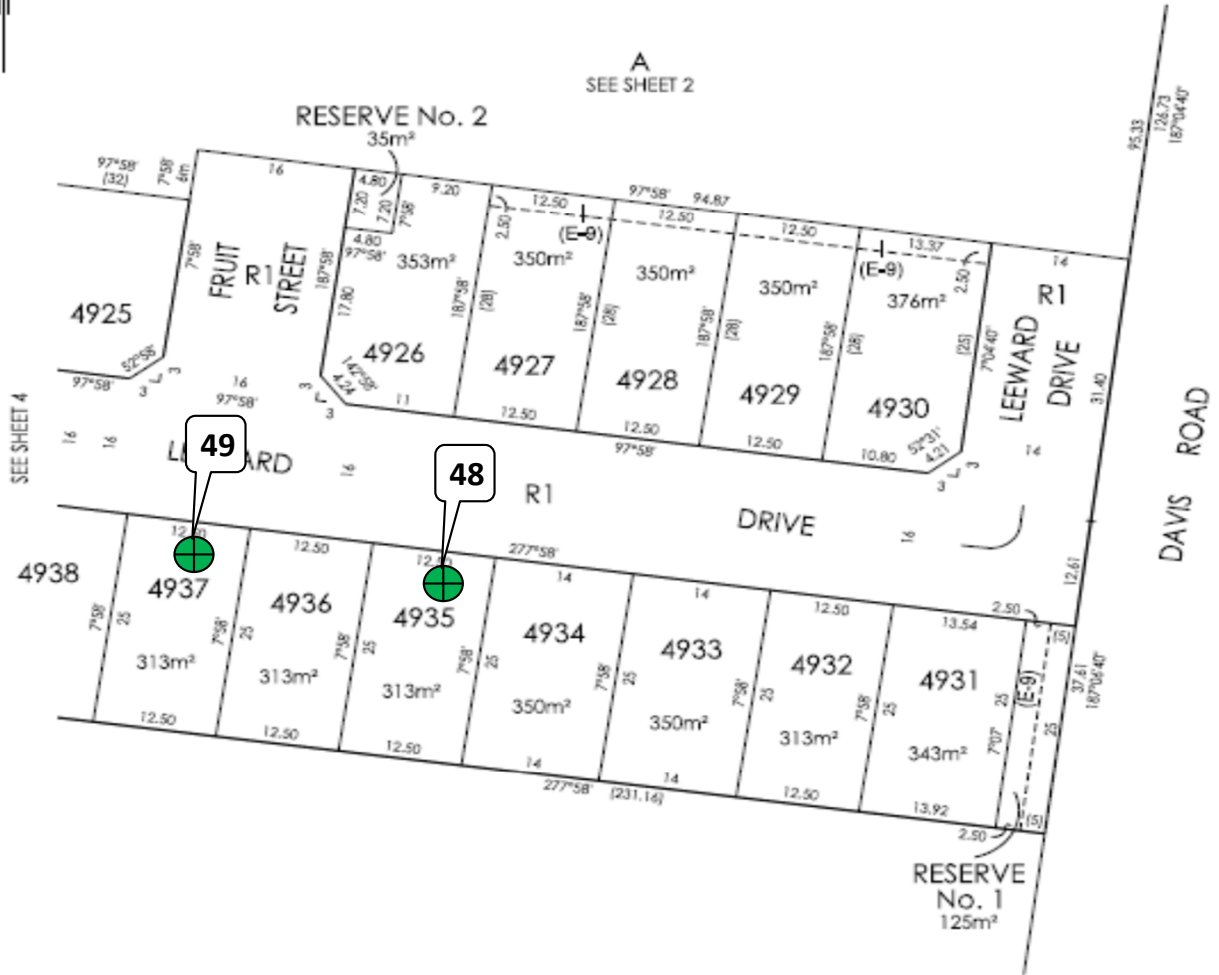
OPERATOR: TC

SCALE: NTS

JOB No.: 9006/033

CHECKED: KK

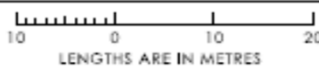
FIGURE No: -



Breese Pitt Dixon Pty Ltd
1/19 Calo Street
Hawthorn East Vic 3123
Ph: 8823 2300 Fax: 8823 2310
www.bpd.com.au info@bpd.com.au

SCALE

1:500



ORIGINAL SHEET SIZE A3
REF: 8352/49

SHEET 5
VERSION: 5

LICENSED SURVEYOR: SIMON COX



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES
ACN 102 571 077

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

CLIENT: SYMON BROS

DATE: 23/07/2022

JOB No.: 9006/035

LOCATION: The Grove South West Precinct, Stage 48 & 49

OPERATOR: TC

CHECKED: KK

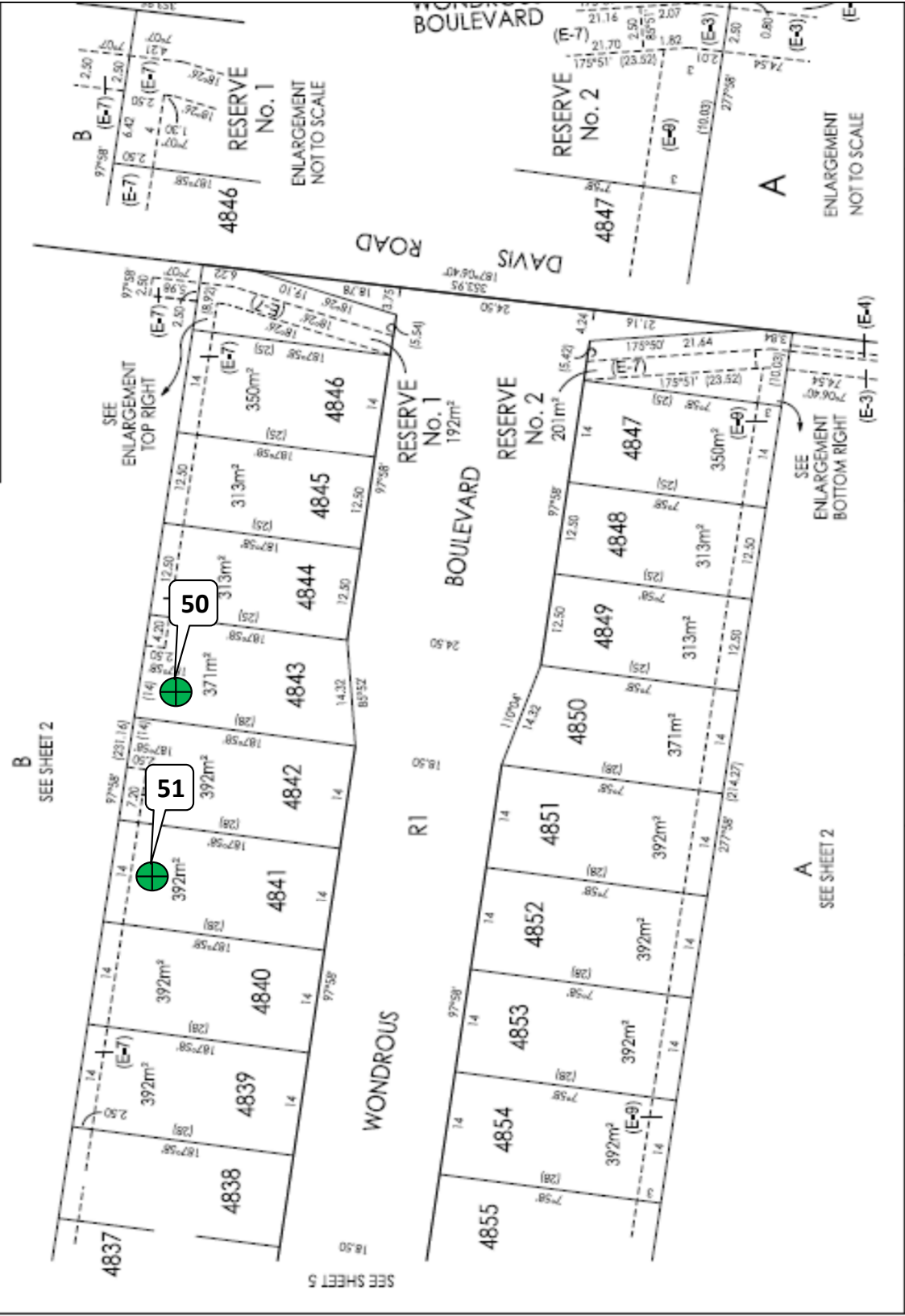
Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 1 of 2

PLAN NUMBER
PS 8441

PLAN OF SUBDIVISION



REF: 8352/48	VERSION: 4	ORIGINAL SHEET SIZE: A3
		LICENSED SURVEYOR: SIMON COX
SCALE	1:500	
Breeze Pitt Dixon Pty Ltd 1/19 Calo Street Hawthorn East VIC 3123 Ph: 8824 9300 Fax: 8823 2310		



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES
ACN 102 571 077

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 48 & 49

Sketch indicating compaction test locations

DATE: 23/07/2022

OPERATOR: TC

SCALE: NTS

JOB No.: 9006/035

CHECKED: KK

FIGURE No: 2 of 2



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.: # 9006/037

LOCATION: SYMON BROS - The Grove, South West Precinct, Stage 48 & 49

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)	
25/07/22	52	<i>Refer to #9006/038 for approx. test site locations.</i>	2.05	26.0	101.0	✘ 2.02	23.0	175	3.0 Wetter	112.0	4	0	0	
25/07/22	53		1.97	24.5	100.0	1.98	24.0	175	0.5 Wetter	102.0	0	0	0	
25/07/22	54		1.88	22.5	99.5	✘ 1.88	25.5	175	3.0 Drier	87.5	4	0	0	
25/07/22	55		2.06	25.5	101.0	✘ 2.03	24.0	175	1.5 Wetter	105.0	11	0	0	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 10:45am Finish Time: 11:25am

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: 200,,

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: 3/8/2022

PLAN NUMBER
PS 844185C

PLAN OF SUBDIVISION



REF: 8352/49 VERSION: 5 ORIGINAL SHEET SIZE A3 SHEET 4



SCALE
1:500

reese Pitt Dixon Pty Ltd
1/19 Cato Street
Hawthorn East Vic 3123
P. 0393 0500 F. 0393 0510



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES
ACN 102 571 077

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 48 & 49

Sketch indicating compaction test locations

DATE: 25/07/2022

OPERATOR: BM

SCALE: NTS

JOB No.: 9006/038

CHECKED: KK

FIGURE No: 1 of 2

PLAN NUMBER
PS 844183G

PLAN OF SUBDIVISION



Breese Pitt Dixon Pty Ltd
1119 Cato Street
Hawthorn East Vic 3123
Ph: 8821 9300 Fax: 8821 9310

SCALE
1:500



REF: 8352/48
VERSION: 4
LICENSED SURVEYOR: SIMON COX

SHEET 5



**GEOTECHNICAL
LABORATORIES**

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 48 & 49

Sketch indicating compaction test locations

DATE: 25/07/2022

OPERATOR: BM

SCALE: NTS

JOB No.: 9006/038

CHECKED: KK

FIGURE No: 2 of 2