Reference
No.: 2306-062

LEVEL ONE

SURVEILLANCE

AND INSPECTION REPORT

Carried Out
By

GEOTECHNICAL LABORATORIES

PREPARED FOR: -

SYMON BROS. CONSTRUCTIONS PTY LTD

Table of Contents

Appendices

Client Name: Symon Bros. Constructions Pty Ltd

Project Name: The Grove West Stage 64

Date: 8th November 2021

Author: Mr. Sam Loza

Reference No.: 2306-062

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 22nd of September 2020 to the 5th of November 2021 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) Road & Drainage Layout Plan Drawing No. 2190E-64-91 – Rev B.

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 22nd of September 2020 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, grey-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)

The sheepsfoot compactor and scrapers 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 twenty-two 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 hilf density ratio not less than 95 percent of the maximum hilf density value as determined by the Standard Hilf 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 22nd of September 2020 to the 5th of November 2021 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.

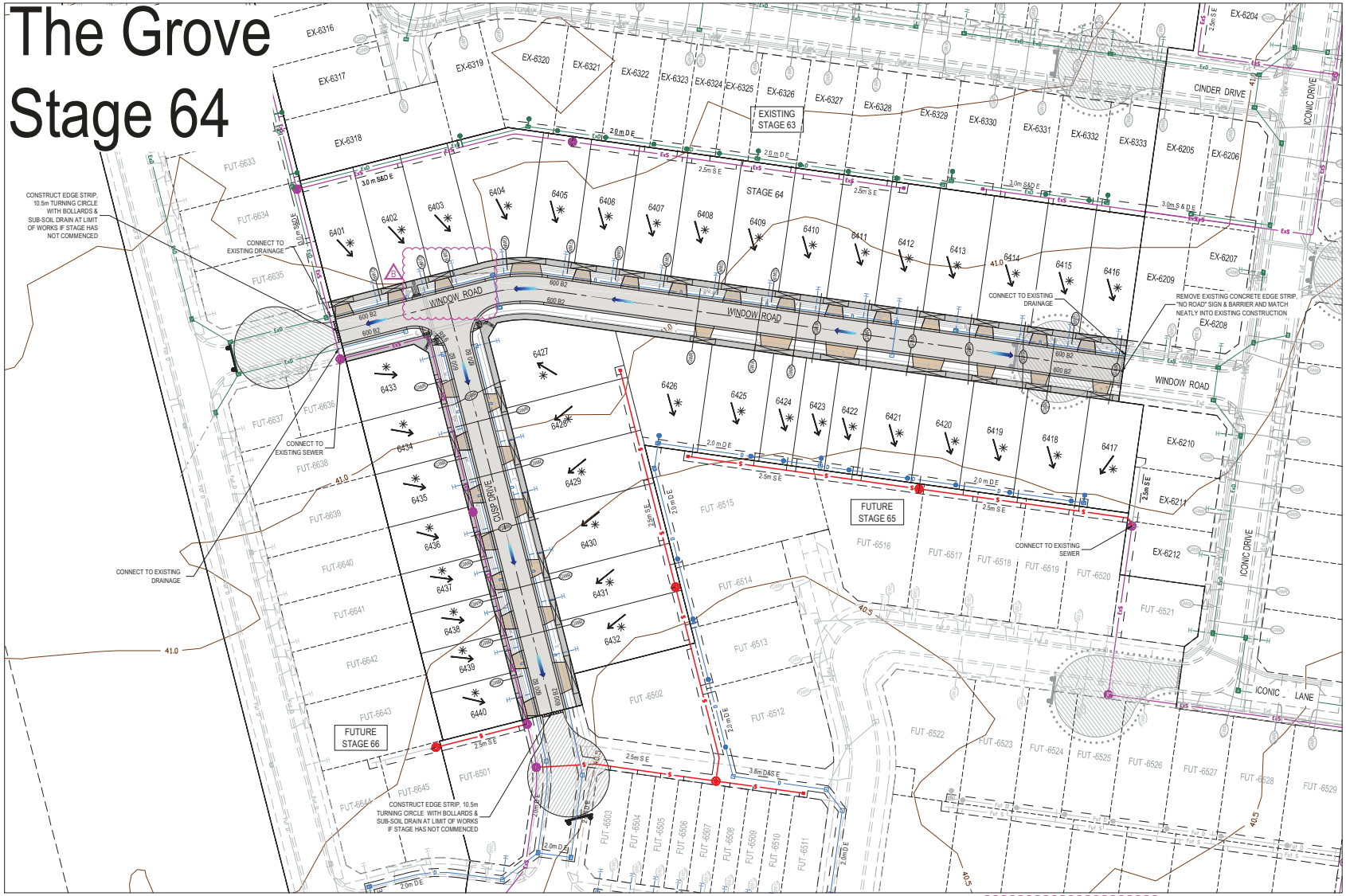
LEVEL ONE

SURVEILLANCE

AND INSPECTION REPORT

APPENDIX A

The Grove Stage 64



LEGEND - FUNCTIONAL LAYOUT PLAN

ALL PROPOSED, FUTURE & EXISTING SERVICE LOCATIONS ARE SHOWN INDICATIVELY

- STORMWATER DRAIN, PIT & PROPERTY INLET
- SWALE DRAIN
- SEWER & MAINTENANCE STRUCTURES
- HOUSE DRAIN
- ELECTRICITY (U.GROUND)
- ELECTRICITY (O.HEAD)
- GAS
- TELSTRA
- OPTIC FIBRE
- WATER
- RECYCLE WATER
- AG. DRAIN
- SERVICE CONDUITS
- TACTILE PAVERS
- EXISTING STORMWATER DRAIN
- EXISTING SWALE DRAIN
- EXISTING SEWER & MAINTENANCE STRUCTURES
- EXISTING HOUSE DRAIN
- EXISTING ELECTRICITY (UNDER GROUND)
- EXISTING ELECTRICITY OVERHEAD
- EXISTING GAS
- EXISTING TELSTRA
- EXISTING OPTIC FIBRE
- EXISTING WATER
- EXISTING RECYCLED WATER
- EXISTING AG. DRAIN
- EXISTING SERVICE CONDUITS
- EXISTING TACTILE PAVERS
- FUTURE STORMWATER DRAIN
- FUTURE SWALE DRAIN
- FUTURE SEWER & MAINTENANCE STRUCTURES
- FUTURE HOUSE DRAIN
- FUTURE ELECTRICITY (UNDER GROUND)
- FUTURE ELECTRICITY OVERHEAD
- FUTURE GAS
- FUTURE TELSTRA
- FUTURE OPTIC FIBRE
- FUTURE WATER
- FUTURE RECYCLED WATER
- FUTURE AG. DRAIN
- FUTURE SERVICE CONDUITS
- FUTURE TACTILE PAVERS
- ZERO LOT LINES
- 141.34 EXISTING SURFACE LEVEL
- FS140.35 FINISHED BUILDING LINE LEVEL
- FR157.40 FINISHED RIDGE LINE LEVEL
- CH270.00 CHAINAGE
- STRUCTURAL FILL > 200mm DEEP
- EXISTING STRUCTURAL FILL > 200mm DEEP
- CUT > 200mm DEEP
- DIRECTION OF FALL
- OVERLAND FLOW
- GRADED IN DIRECTION OF FALL TO LEVEL INDICATED
- EDGE STRIP, SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER
- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE REMOVED
- PERMANENT SURVEY MARK
- TEMPORARY BENCH MARK
- PROPOSED DRIVEWAY & FOOTPATH
- PROPOSED INDUSTRIAL DRIVEWAY
- PROPOSED SHARED FOOTPATH
- PROPOSED ROAD PAVING
- EXISTING ROAD PAVING

ROAD LAYOUT TABLE

ROAD NAME	ROAD RESERVE WIDTH (m)	ROAD WIDTH (m)			KERB TYPE		VERGE WIDTH (m)	
		LIP TO LIP	INV TO INV	BACK TO BACK	NTH/WEST	STH/EAST	NTH/WEST	STH/EAST
WINDOW ROAD	16.00	6.40	7.30	7.60	600 B2	600 B2	4.20	4.20
CUSP DRIVE	16.00	6.40	7.30	7.60	600 B2	600 B2	4.20	4.20

SERVICES OFFSET TABLE

ROAD NAME	GAS	WATER	RECYCLED WATER	ELECTRICITY	OPTIC FIBRE
	OFFSET (m)	OFFSET (m)	OFFSET (m)	OFFSET (m)	OFFSET (m)
WINDOW ROAD	2.10 N	3.00 N	2.55 N	2.60 S	1.80 S
CUSP DRIVE	2.10 W	3.00 W	2.55 W	2.60 E	1.80 E

Drawing Index

- 2190E-64-91 Layout Plan
- 2190E-64-92 Typical Cross Sections
- 2190E-64-93 Parking Plan
- 2190E-64-94 Vehicle Turning Movements

WARNING
BEWARE OF UNDERGROUND SERVICES
The locations of underground services are approximate only and their exact position should be proven on site.
No guarantee is given that all existing services are shown.
Locate all underground services before commencement of works.
DIAL 1100 BEFORE YOU DIG
www.1100.com.au

REV	DATE	AMENDMENT / REVISION DESCRIPTION	DES/DFT	APPROVAL
A	11.09.19	ISSUED TO COUNCIL FOR APPROVAL	RV/JG	TM
B	10.11.19	PRAM CROSSING ADDED - DRAWING INDEX AMENDED	RV/JG	TM

SUBJECT TO APPROVAL

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

Quality Management - ISO 9001 Global-Mark.com.au® · Ohs Management - As4525.4801 Global-Mark.com.au® · Environmental Management - Iso14001 Global-Mark.com.au®

TITLE	NAME
DRAFTER	V.Radha
DESIGNER	J.Grotaers
CHECKED	T.Motet
AUTHORISED	P.Shellie
REFERENCE No. 1	
REFERENCE No. 2	

0 5 10 20
Scale 1:500
SCALE AS SHOWN AT A1

N

SMEC
Member of the Surbana Jurong Group
ABN 47 065 475 149
Collins Square, Tower 4, Level 20, 727 Collins St
Melbourne, VIC 3008
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FRASERS PROPERTY

The Grove - Stage 64
Wyndham City Council
Functional Design
Layout Plan

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
234 G6	2190E-64-91	01 of 04	B

DWG PATH: V:_Vault\Projects_Urban\2190E-The Grove West\2190E-64\Dwgs\2190E-64-91.dwg PRINTED BY: JG14345 on 18/10/2019 at 04:16:27 PM

LEVEL ONE

SURVEILLANCE

AND INSPECTION REPORT

APPENDIX B

DAILY SUMMARY - FIELD DENSITY TESTS

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

REPORT NO.: # 2305/031

LOCATION: SYMON BROS - The Grove West Stage 64 & 65

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m³)	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)
22/09/20	1	***Refer to #2305/032 for approx. test site locations.***	1.96	25.5	97.0	✠ 2.02	23.5	175	2.0 Wetter	107.5	9	0	0
22/09/20	2		2.00	21.5	101.5	1.98	22.0	175	0.5 Drier	98.0	0	0	0
22/09/20	3		1.89	30.0	105.5	1.79	32.5	175	2.5 Drier	92.0	0	0	0
22/09/20	4		2.02	22.0	104.0	✠ 1.94	24.5	175	2.5 Drier	90.0	11	0	200
22/09/20	5		1.84	30.5	103.0	1.79	31.5	175	1.0 Drier	97.5	0	0	200
22/09/20	6		1.83	33.0	101.5	1.81	38.0	175	5.0 Drier	87.0	0	0	200

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: 11:31am

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

Soil Layer thickness: 200mm

Compaction Test: AS 1289 5.7.1

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

❖

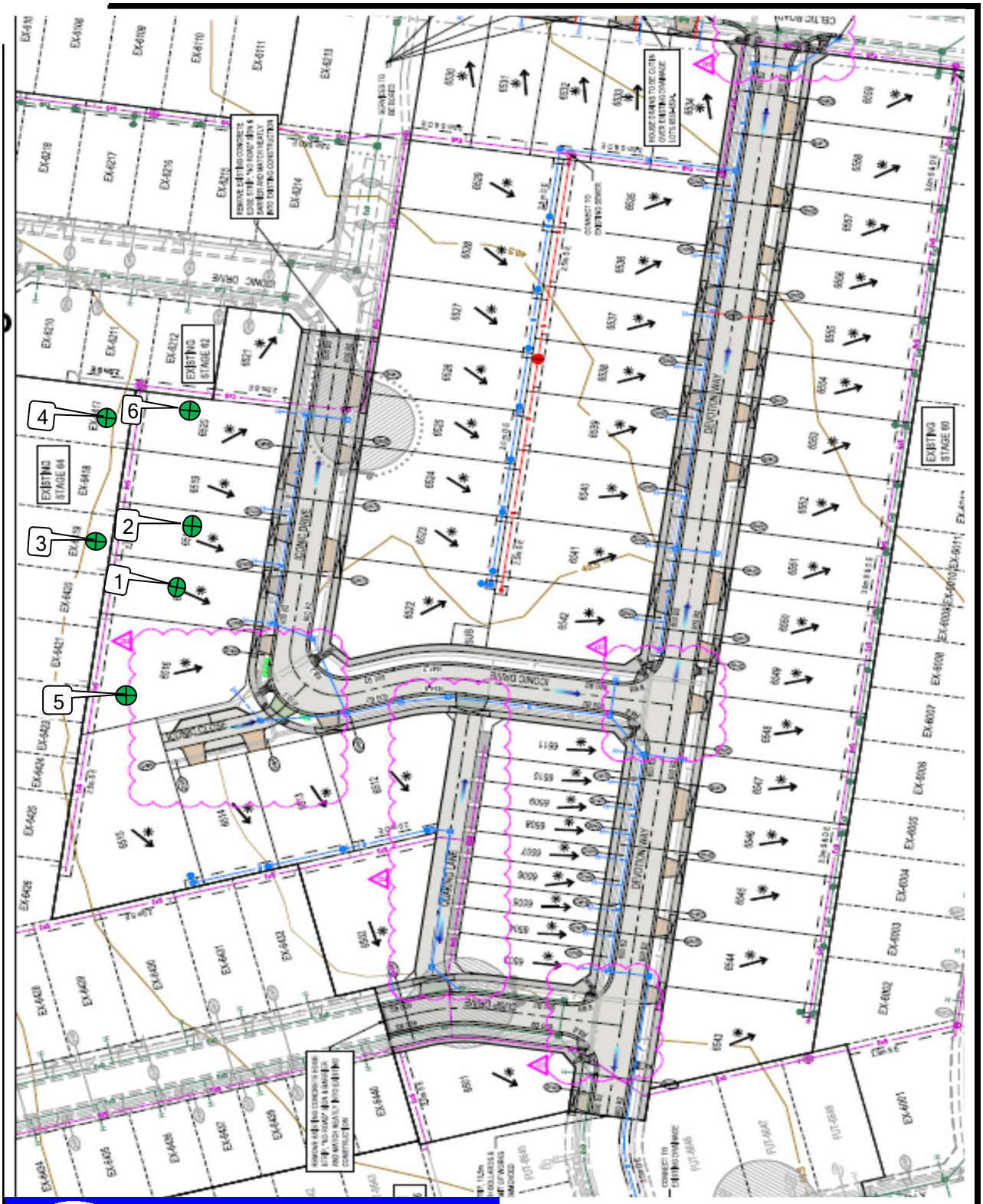
NATA ACCREDITED FOR TECHNICAL COMPETENCE

Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 28/9/2020



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: 22/9/2020**	**JOB No.: 2305/032**
LOCATION: The Grove West Stage 64 & 65	**OPERATOR: RW**	**CHECKED: KK**
Sketch indicating compaction test locations	**SCALE: NTS**	**FIGURE No: -**

DAILY SUMMARY - FIELD DENSITY TESTS

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

REPORT NO.: # 2305/057

LOCATION: SYMON BROS - The Grove West Stage 64

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m³)	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)
13/10/20	1	***Refer to #2305/058 for approx. test site locations.***	2.02	21.5	99.5	2.03	22.0	175	0.5 Drier	98.0	0	0	100
13/10/20	2		1.96	28.0	99.5	✠ 1.97	26.0	175	2.0 Wetter	107.0	4	0	50
13/10/20	3		1.99	27.5	101.5	1.95	26.0	175	1.5 Wetter	106.0	0	0	0
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite
Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.
Start Time: 9:15am Finish Time: 9:37am

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

Soil Layer thickness: 200mm

Compaction Test: AS 1289 5.7.1

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

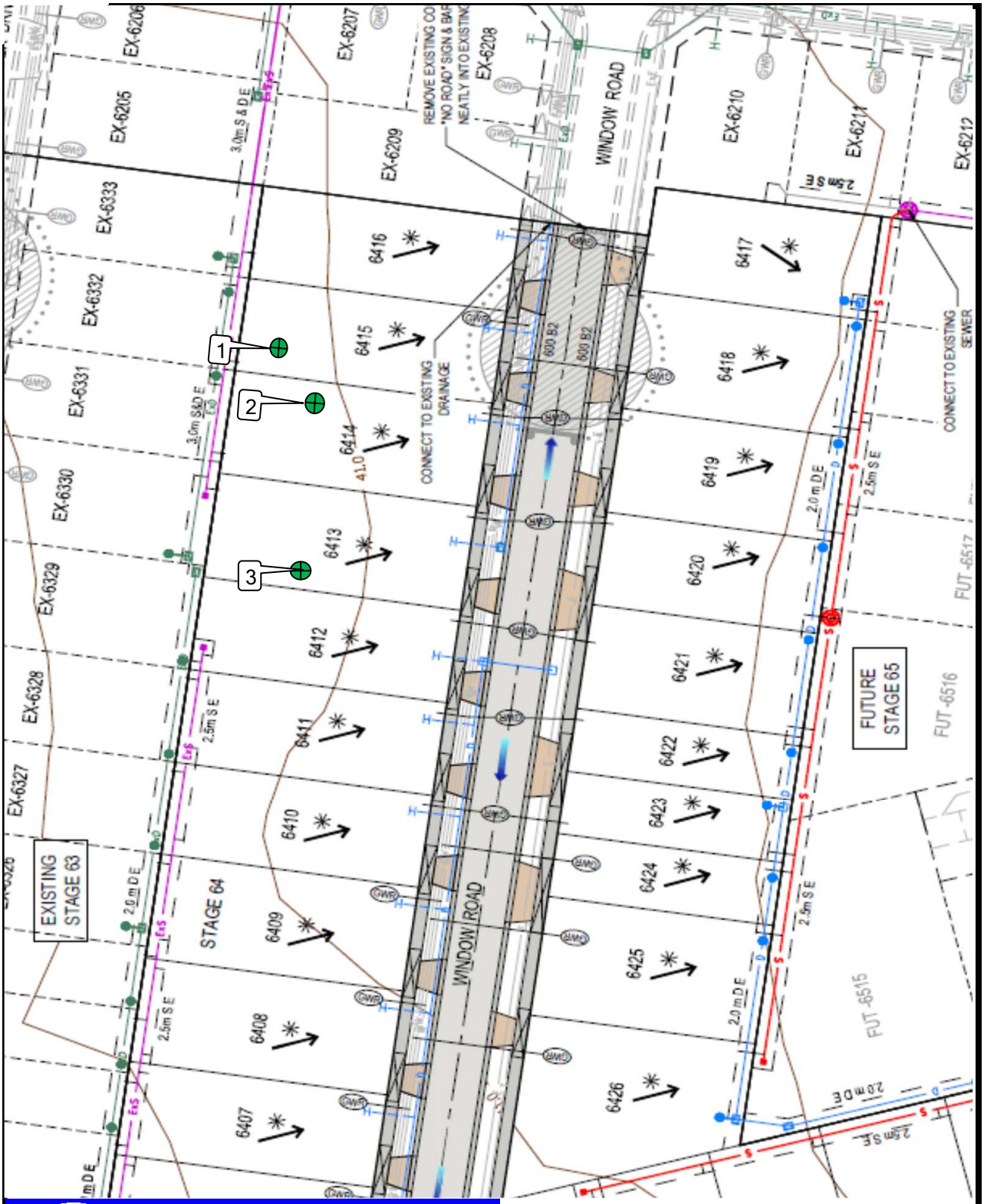
❖

Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 14/10/2020



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: 13/10/2020**	**JOB No.: 2305/058**
LOCATION: The Grove West Stage 64	**OPERATOR: WS/JC**	**CHECKED: KK**
Sketch indicating compaction test locations	**SCALE: NTS**	**FIGURE No: -**

DAILY SUMMARY - FIELD DENSITY TESTS

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

REPORT NO.: # 2305/059

LOCATION: SYMON BROS - The Grove West Stage 64

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m³)	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)
14/10/20	1	***Refer to #2305/060 for approx. test site locations.***	2.06	20.0	105.5	✠ 1.95	23.0	175	3.0 Drier	86.5	4	0	0
14/10/20	2		1.96	21.0	101.5	1.93	24.0	175	2.5 Drier	89.0	0	0	0
14/10/20	3		2.00	21.5	103.0	1.94	24.0	175	2.5 Drier	89.0	0	0	0
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite
Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.
Start Time: 8:35am Finish Time: 8:50am

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

Soil Layer thickness: 200mm

Compaction Test: AS 1289 5.7.1

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

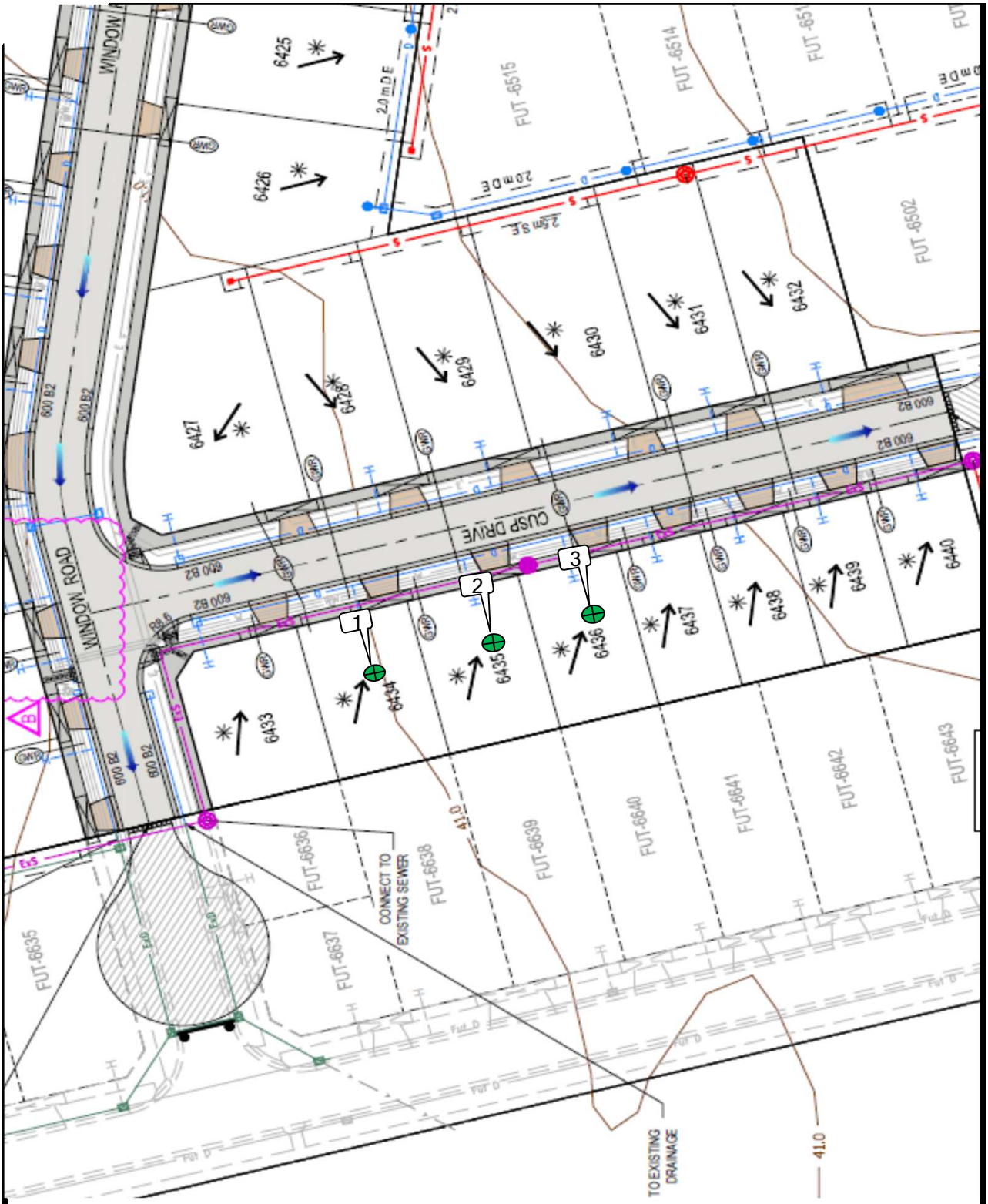
❖

Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 16/10/2020



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: 14/10/2020**	**JOB No.: 2305/060**
LOCATION: The Grove West Stage 64	**OPERATOR: RW**	**CHECKED: KK**
Sketch indicating compaction test locations	**SCALE: NTS**	**FIGURE No: -**

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.: # 2305/350
LOCATION: SYMON BROS - The Grove West, Stage 64

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m³)	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)
2/09/21	1	***Refer to #2305/351 for approx. test site locations.***	1.95	20.5	101.5	1.92	23.5	175	3.0 Drier	87.0	0	0	400
2/09/21	2		1.90	20.0	99.0	✠ 1.92	24.0	175	3.5 Drier	85.0	8	0	500
2/09/21	3		1.89	24.0	100.0	1.88	26.5	175	2.5 Drier	90.5	0	0	500
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

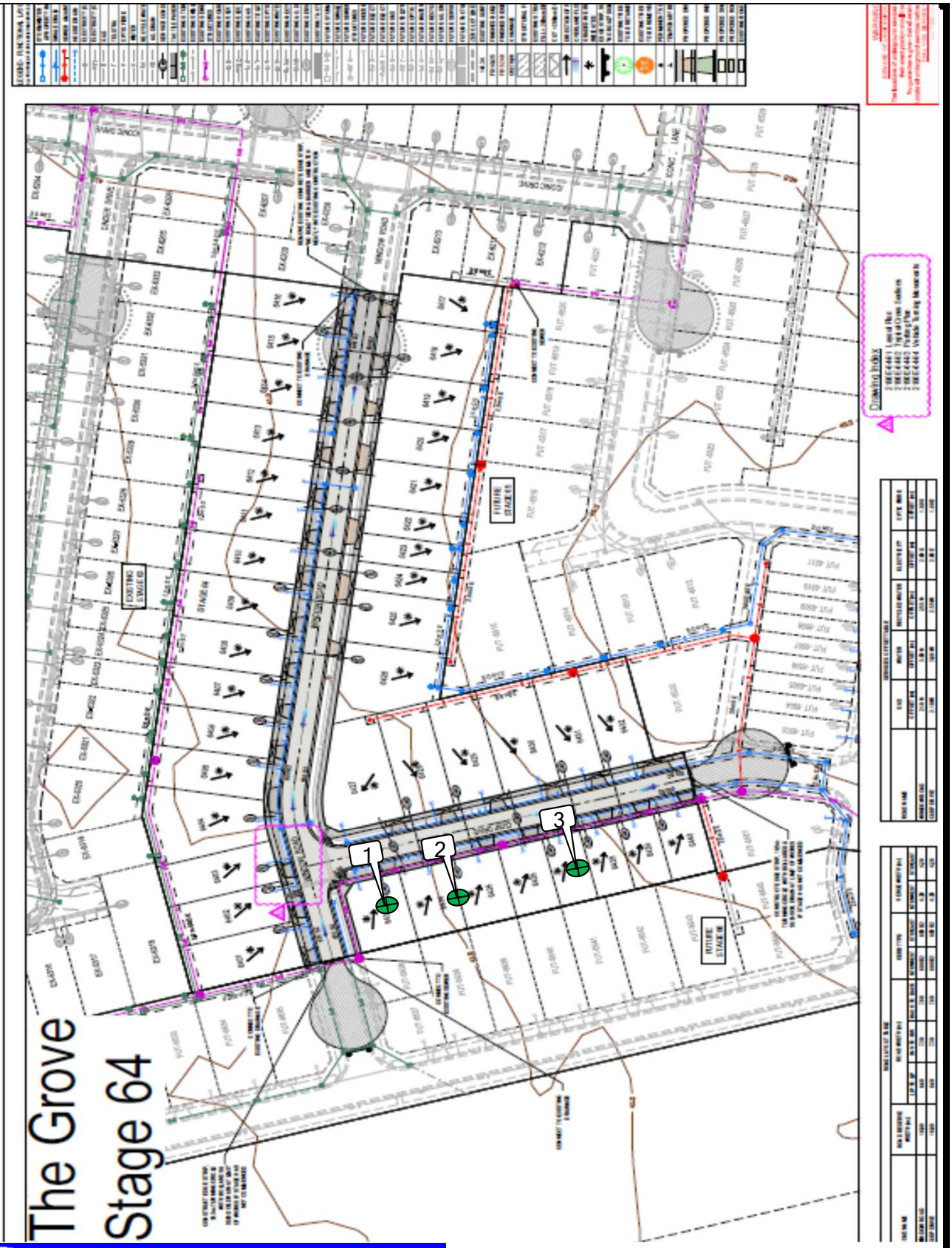
NOTES: Clayey Fill Ex. Onsite
Test sites located - Geolab Procedure 4, Part 4.4.
Compaction specimens sampled after compaction.
Start Time: 12:00pm Finish Time: 1:15pm

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
Soil Layer thickness: 200mm
Compaction Test: AS 1289 5.7.1
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
❖

NATA ACCREDITED FOR TECHNICAL COMPETENCE
Accredited for compliance with ISO/IEC 17025 - Testing
NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)
Issue Date: 8/9/2021



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: 2/09/2021**	**JOB No.: 2305/351**
LOCATION: The Grove West Stage 64	**OPERATOR: TC**	**CHECKED: KK**
Sketch indicating compaction test locations	**SCALE: NTS**	**FIGURE No: -**

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.: # 2305/364
LOCATION: SYMON BROS - The Grove, Stage 64

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m³)	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)
3/09/21	1	***Refer to #2305/365 for approx. test site locations.***	1.95	22.0	102.5	1.91	21.5	175	0.5 Wetter	102.5	0	0	600
3/09/21	2		1.84	30.5	100.5	1.82	31.0	175	0.5 Drier	98.5	0	0	600
3/09/21	3		1.89	21.5	102.5	1.85	25.0	175	4.0 Drier	84.5	0	0	400
3/09/21	4		1.86	26.0	96.5	✠ 1.93	24.5	175	1.5 Wetter	106.0	4	0	600
3/09/21	5		1.88	25.5	99.5	1.89	28.0	175	2.5 Drier	91.0	0	0	400
-	-		-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite
Test sites located - Geolab Procedure 4, Part 4.4.
Compaction specimens sampled after compaction.
Start Time: 8:00am Finish Time: 9:40am

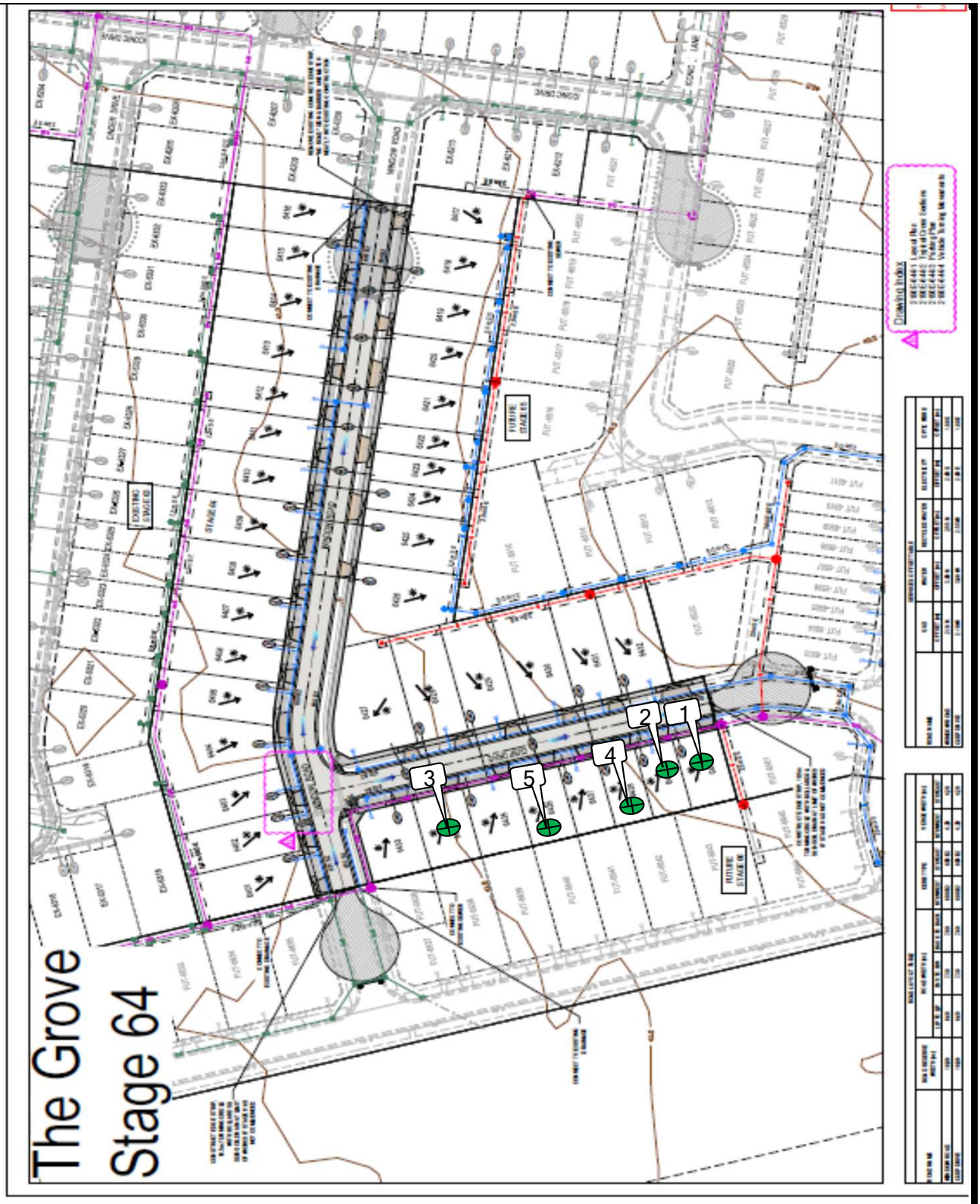
A Hilf Rapid Compaction test was carried out on a sample taken from each Field Density location to obtain the Compaction Parameters tabulated on this Report.

Moisture Content: AS 1289 2.1.1
Soil Layer thickness: 200mm
Compaction Test: AS 1289 5.7.1
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
❖

NATA ACCREDITED FOR TECHNICAL COMPETENCE

Accredited for compliance with ISO/IEC 17025 - Testing
NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)
Issue Date: 10/9/2021



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: 3/09/2021**	**JOB No.: 2305/365**
LOCATION: The Grove West Stage 64	**OPERATOR: FK/NB**	**CHECKED: KK**
Sketch indicating compaction test locations	**SCALE: NTS**	**FIGURE No: -**

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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 2305/400
LOCATION: SYMON BROS - The Grove West , Stage 64

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m³)	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)
5/11/21	1	***Refer to #2305/401 for approx. test site locations.***	1.90	27.5	102.0	1.87	29.5	175	2.0 Drier	94.0	0	0	0
5/11/21	2		1.89	28.5	99.0	1.91	27.0	175	1.5 Wetter	104.5	0	0	0
5/11/21	3		2.09	22.0	105.0	1.99	22.5	175	0.5 Drier	98.0	0	0	0
5/11/21	4		1.93	23.0	96.5	2.00	23.5	175	0.5 Drier	97.0	0	0	0
5/11/21	5		1.87	20.5	99.5	1.88	23.5	175	3.0 Drier	86.5	0	0	0
5/11/21	6		1.88	24.5	98.0	✠ 1.92	25.5	175	0.5 Drier	97.0	3	0	0

NOTES: Clayey Fill Ex. Onsite
Test sites located - Geolab Procedure 4, Part 4.4.
Compaction specimens sampled after compaction.
Start Time: 10:20am Finish Time: 11:00am

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
Soil Layer thickness: 200mm
Compaction Test: AS 1289 5.7.1
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
❖

NATA ACCREDITED FOR TECHNICAL COMPETENCE

Accredited for compliance with ISO/IEC 17025 - Testing
NATA Accredited Laboratory Number 14561

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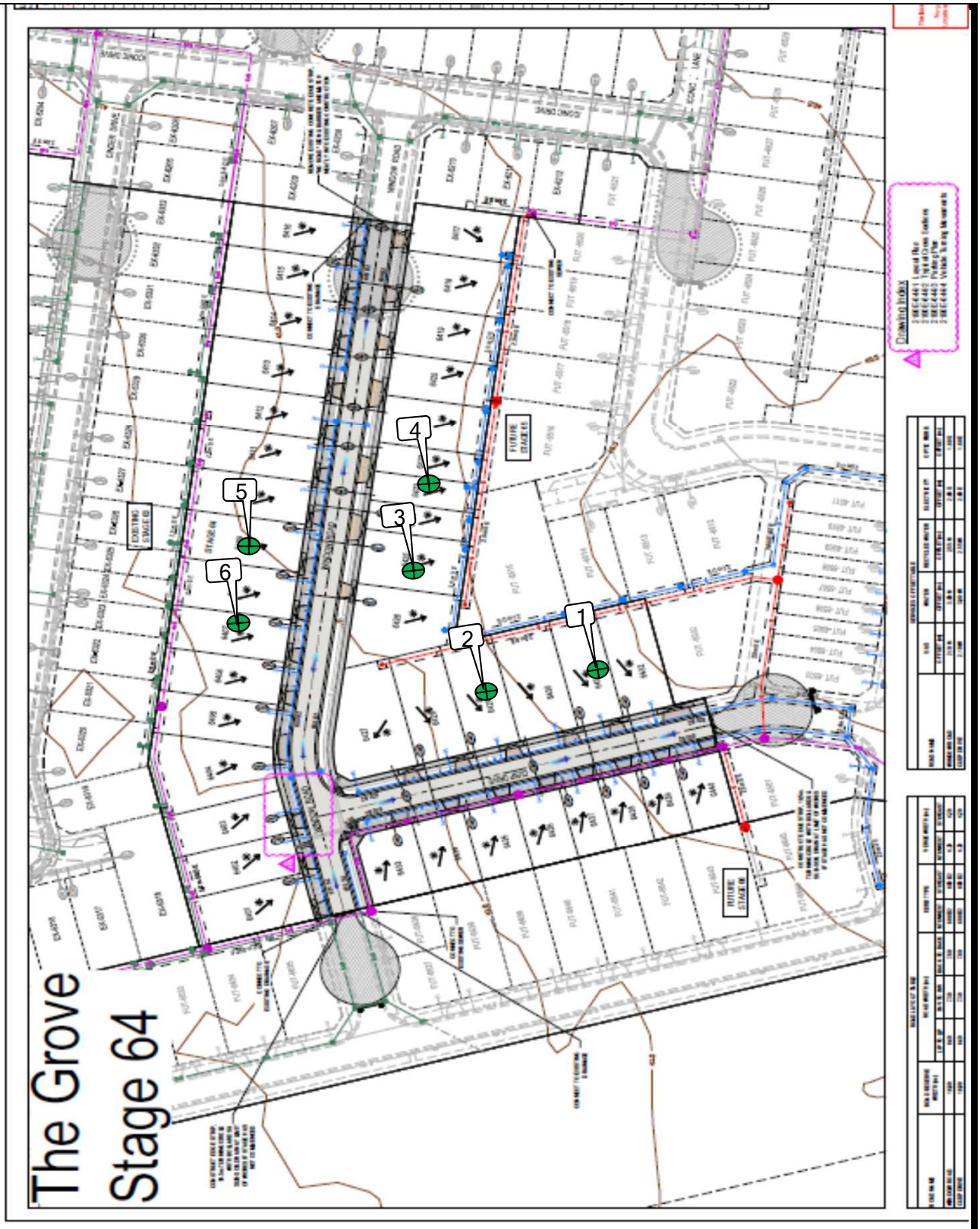
(Approved Signatory)
Issue Date: 8/11/2021



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CLIENT: SYMON BROS	**DATE: 5/11/2021**	**JOB No.: 2305/401**
LOCATION: The Grove West Stage 64	**OPERATOR: VN**	**CHECKED: KK**
Sketch indicating compaction test locations	**SCALE: NTS**	**FIGURE No: -**