LEVEL ONE

Reference No.: 1862-168

SURVEILLANCE

AND INSPECTION REPORT

Carried Out By



PREPARED FOR: -

DRAPERS CIVIL CONTRACTING PTY LTD



GEOTECHNICAL LABORATORIES PTY LTD ABN 51 102 571 077 14 RAVENHALL WAY, RAVENHALL, 3023 PH. (03) 8361-9140

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Appendices

Appendix A Construction Drawings

Appendix B Daily Field Compaction Summary Results



GEOTECHNICAL LABORATORIES PTY LTD ABN 51 102 571 077 14 RAVENHALL WAY, RAVENHALL, 3023 PH. (03) 8361-9140

Client Name: Drapers Civil Contracting Pty Ltd

Project Name: Armstrong Estate - Stage 33

Date: 30th June 2022 Author: Mr. Sam Loza

Reference No.: 1862-168

Revision: 0

Project Manager: Mr. Chris Nation

1. Introduction & Scope

At the request of Drapers Civil Contracting Pty Ltd, Geotechnical Laboratories has carried out inspection and testing of the above-mentioned site from the 22nd of November 2021 to the 9th of December 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 Drapers Civil Contracting Pty Ltd and was used to determine compliance of earthworks in conjunction with the requirements of AS 3798 – 2007.

(1). Creo Consultants Construction Drawing No. L013901 R200 Rev 1.

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 construction drawings.

2. Site Preparation

Site inspections were undertaken on the 10th of November 2021 confirming that selected areas to be filled were completely stripped of topsoil and existing pavement materials prior to filling. The brown silty topsoils had been stockpiled around the site for later removal off-site.

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

3. Fill Material

It is understood that the fill material used was sourced from on-site excavations, mainly service trenches and road boxing.



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The fill material is best described as a silty CLAY, brown, grey-brown, slightly moist to moist, medium plasticity with basalt gravels and occasional cobble.

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 placed material in horizontal loose layers of approximately 250mm-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 thirty-one 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.



GEOTECHNICAL LABORATORIES PTY LTD ABN 51 102 571 077 14 RAVENHALL WAY, RAVENHALL, 3023 PH. (03) 8361-9140

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, Drapers Civil Contracting 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 Drapers Civil Contracting Pty Ltd from the 22nd of November 2021 to the 9th of December 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 Drapers Civil Contracting 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 Drapers Civil Contracting 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.

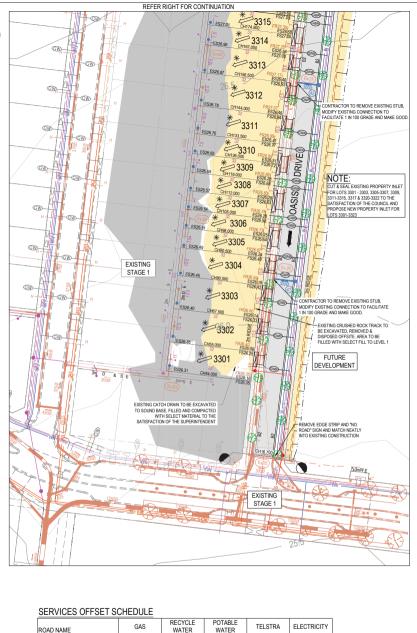


LEVEL ONE

SURVEILLANCE

AND INSPECTION REPORT

APPENDIX A



NOTE: CUT & SEAL EXISTING PROPERTY INLE FOR LOTS 3301 - 3303, 3305-3307, 3309, 3311-3315 3317 & 3320-3322 TO THE SATISEACTION OF THE COUNCIL AND PROPOSE NEW PROPERTY INLET FOR LOTS 3301-3323 REMOVE TEMPORARY TURN EXISTING AROUND AREA EDGE STRIP AND "NO - ROAD" SIGN AND MATCH NEATLY STAGE 23 INTO EXISTING CONSTRUCTION FXISTING STAGE 11 3331 A EXISTING CATCH DRAIN TO BE EXCAVATED TO SOUND BASE, FILLED AND COMPACTED *3330 WITH SELECT MATERIAL TO THE SATISFACTION OF THE SUPERINTENDENT 3329 EXISTING ES28.62 * STAGE 1 EXISTING CATCH DRAIN TO BE EXCAVATED TO SOUND BASE, FILLED AND COMPACTED WITH SELECT MATERIAL TO THE E528.43 * CH CONTRACTOR TO CONNECT PROPOSE HOUSE CONNECTION'S FOR LOTS 3326 SATISFACTION OF THE SUPERINTENDEN 3327 MANNA GUM DRIVE (REFER R700 FOR DETAIL) REMOVE EDGE STRIP AND "NO ROAD" SIGN AND MATCH NEATLY EXISTING FENCE TO BE REMOVED AND DISPOSED OFFSITE CONTRACTOR TO BREAK INTO EXISTING PIT, CONNECT AND MAKE GOOD DEVELOPMENT EXISTING STAGE 1 CH233.000 CONTRACTOR TO REMOVE EXISTING STUB, MODIEY EXISTING CONNECTION TO FACILITATE 1 IN 100 GRADE AND MAKE GOOD. ES27.41 CH220.500 ES27 3/ EXISTING CRUSHED ROCK TRACK TO BE EXCAVATED, REMOVED & DISPOSED OFFSITE, AREA TO BE FILLED WITH SELECT FILL TO LEVEL 1 3319 ES27.22 3318 TING PIT COVER LEVELS WITHIN REVISED FINISHED SURFACE LEVELS (ID ES26.95 REFER LEFT FOR CONTINUATION STREET TREE CENTRALLY LOCATED BETWEEN EDGE OF FOOTPATH AND BACK OF KERB. #

ROAD NAME	GAS		RECYCLE WATER			TABLE 'ATER	TE	LSTRA	ELECTRICITY		
	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	
MANNA GUM DRIVE	N	2.10	N	2.50	N	3.20	S	1.775	S	2.40	
OASIS DRIVE	Е	2.10	Е	2.50	Е	3.20	W	1.775	W	2.40	
NOTE: STREET TREES TO BE INSTALLED IN THE CENTRE OF ALL NATURE STRIPS											

DATE ISSUE DESCRIPTION DRAWN CHECKED APPROVED | 01/09/21 | REVISED ELEC OFFSETS | 25/08/21 | CONSTRUCTION ISSUE | 24/08/21 | AMENDED TO COUNCIL COMMENTS (20/08/21) | DEDIPORT | TEMPOR SERVICE | COMMENTS (20/08/21) | CONSTRUCTION | C





ARMSTRONG

4.35m -

ARMSTRONG - STAGE 33 LAYOUT PLAN

16m ROAD RESERVE TWO WAY CROSSFALL MANNA GUM DRIVE & OASIS DRIVE

> **ISSUED FOR** CONSTRUCTION

SERVICE CONDUITS TACTILE PAVERS EXISTING ELECTRICITY (UNDERGROUND) EXISTING ELECTRICITY (OVERHEAD) EXISTING GAS EXISTING OPTIC FIBRE EXISTING TELSTRA
EXISTING ELECTRICITY (UNDERGROUND) EXISTING ELECTRICITY (OVERHEAD) EXISTING GAS EXISTING OPTIC FIBRE
EXISTING ELECTRICITY (OVERHEAD) EXISTING GAS EXISTING OPTIC FIBRE
EXISTING GAS EXISTING OPTIC FIBRE
EXISTING OPTIC FIBRE
EXISTING TELSTRA
EXISTING WATER
EXISTING RECYCLED WATER
EXISTING STORMWATER DRAIN
EXISTING SEWER
EXISTING HOUSE DRAIN
EXISTING SWALE DRAIN
EXISTING SURFACE LEVEL
FINISHED BUILDING LINE LEVEL
FINISHED RIDGE LINE LEVEL
TOP OF RETAINING WALL
BOTTOM OF RETAINING WALL
RETAINING WALL
BUILDING ENVELOPE
PAVEMENT TREATMENT
STRUCTURAL FILL > 200mm DEEP
EX. STRUCTURAL FILL > 200mm DEEP
DIRECTION OF FALL
OVERLAND FLOW
ALLOTMENT TO BE GRADED EVENLY IN
DIRECTION OF FALL TO LEVELS INDICATED
CONCRETE EDGE STRIP WITH SUBSOIL DRAIN,
"NO ROAD" SIGN & BARRIER
LIMIT OF WORKS
EXISTING TREE TO BE REMOVED
PERMANENT SURVEY MARK
TEMPORARY BENCH MARK
PROPOSED DRIVEWAY

CITY OF ODE ATED OFFI ONG TO STAND HERE LIDON ADDROVAL

STORMWATER DRAIN, PIT & PROPERTY INLET

SWALE DRAIN

● SEWER & MAINTENANCE STRUCTURES

NOTES:

1. ALL VEHICLE AND PRAM CROSSING LAYBACKS, TO BE MINIMUM OF 1.0m FROM PTIS.

2. ALL PRAM CROSSINGS TO BE A MINIMUM 2.0m FROM VEHICLE CROSSINGS.

3. ALL PRAM CROSSINGS TO BE DIDA COMPLIANT.

ALL PHAIM CHOSSINGS TO BE DUA COMPLIANT.

VEHICLE EXCLUSION MEASURES BETWEEN ROAD RESERVE
AND RESERVE TO FORM PART OF LANDSCAPE WORKS.

THE USE OF DIRECTIONAL AND HAZARD TACTILE PAVERS

THE USE OF DIRECTIONAL AND HAZARD TACTILE PAVENS MUST ACCORD WITH SECTION 2.2.1 OF ASNASZ 1284.2002.
SEWER MAINTENANCE HOLE CONFERTER SLAB OR CONE, TO BE ROTATED TO ENSURE COVER POSITION IS CENTRALLY LOCATED WITHIN FOOTPATH.
CHANAGES FOR SETOUT OF PROPERTY NLET POINTS,
SERVICING FUTURE LOTS, ARE MEASURED FROM THE
DOWNWATERA MY.

CONTRACTOR TO LOCATE ALL EXISTING ASSETS PRIOR TO

COMMENCEMENT OF WORKS. ANY DAMAGE TO EXISTING ASSETS TO BE RECTIFIED AT CONTRACTORS EXPENSE. CONTRACTOR TO EXPENSE. PRIOR TO COMMENCEMENT OF CONSTRUCTION.

NOTE: STREET TREE LOCATIONS SHOWN ARE INDICATIVE ONLY. ULTIMATE LOCATION IS TO BE PROVIDED/CONFIRMED BY LANDSCAPE ARCHITECTS

WARNING

The locations of underground & overhead services are pproximate only & their exact position should be proven on site o guarantee is given that all existing services are shown. Locats all underground services before commencement of works

DIAL 1100 BEFORE YOU DIG





L013901 R200



LEVEL ONE

SURVEILLANCE

AND INSPECTION REPORT

APPENDIX B



REPORT NO.: # 1861/309

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

DRAPERS - Armstrong Estate, Stage 33 LOCATION:

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)
22/11/21	1		2.02	13.0	97.0	2.08	15.5	175	2.5 Drier	84.0	0	0	0
22/11/21	2		2.14	11.5	102.0	2.09	14.0	175	2.5 Drier	81.0	0	0	0
22/11/21	3	Refer to #1861/310 for	2.19	13.0	103.5	2.11	15.5	175	2.5 Drier	84.0	0	0	0
22/11/21	4	approx. test site locations.	2.11	10.5	102.0	2.07	14.5	175	4.0 Drier	73.5	0	0	0
22/11/21	5		2.19	16.0	105.0	2.09	16.5	175	0.5 Drier	97.0	0	0	0
22/11/21	6		2.10	18.5	104.0	2.02	19.5	175	1.0 Drier	95.0	0	0	0

NOTES: Clayey Fill Ex. Onsite

Compaction specimens sampled after compaction.

Test sites located - Geolab Procedure 4, Part 4.4.

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.

NATA

TECHNICAL COMPETENCE

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)

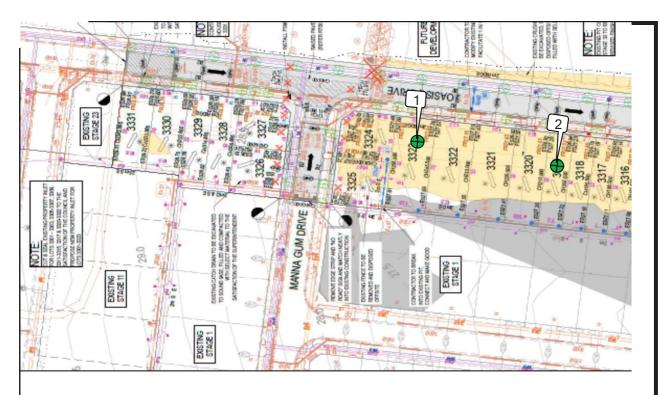
Accredited for compliance with ISO/IEC 17025 - Testing

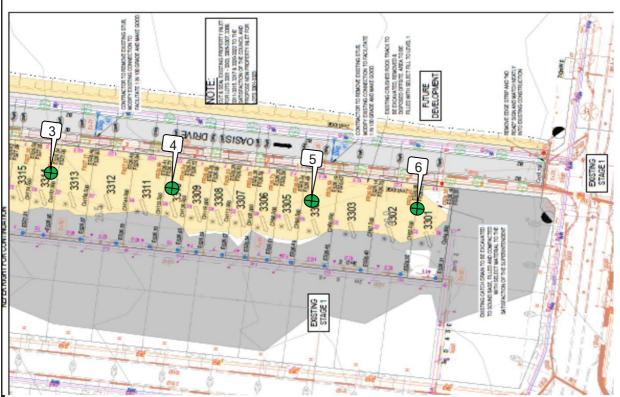
NATA Accredited Laboratory Number 14561

MICK CROWE

(Approved Signatory)

Issue Date: 26/11/2021







GEOTECHNICAL LABORATORIES ACN 102 571 077

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

CLIENT: DRAPERS

LOCATION: Armstrong Estate Stage 33

Sketch indicating approx. compaction test locations

DATE: 22/11/2021 JOB No.: 1861/310

OPERATOR: PV/VN CHECKED: KK

SCALE: NTS FIGURE No: -



REPORT NO.: # 1861/321

LOCATION: DRAPERS - Armstrong, Stage 33, Mt Duneed

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

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)
9/12/21	1		2.08	21.5	101.0	2.06	21.0	175	0.5 Wetter	103.5	0	0	0
9/12/21	2		2.03	19.0	99.0	2.05	18.5	175	0.5 Wetter	102.5	0	0	0
9/12/21	3	Refer to #1861/326 for	2.07	20.5	102.0	2.03	20.0	175	0.5 Wetter	103.5	0	0	0
9/12/21	4	approx. test site locations.	2.05	16.0	99.5	2.05	18.5	175	2.5 Drier	87.5	0	0	0
9/12/21	5		2.07	15.0	101.5	2.04	17.5	175	2.5 Drier	87.0	0	0	0
9/12/21	6		2.16	15.5	103.0	2.10	15.5	175	0.0 Drier	100.0	0	0	0

NOTES: Clayey Fill Ex. Onsite Compaction specimens sampled after compaction.

Test sites located - Geolab Procedure 4, Part 4.4. Start Time: 7:45am 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.

NATA

TECHNICAL COMPETENCE 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)

<u>Accredited for compliance with ISO/IEC</u> 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE

(Approved Signatory)

Issue Date: 14/12/2021

₩.



REPORT NO.: # 1861/322

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

DRAPERS - Armstrong, Stage 33, Mt Duneed LOCATION:

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)
9/12/21	7		2.13	15.5	104.5	2.04	18.0	175	3.0 Drier	85.0	0	0	0
9/12/21	8		2.09	18.0	100.0	2.09	18.5	175	0.0 Drier	98.5	0	0	0
9/12/21	9	Refer to #1861/326 for	2.13	14.0	101.5	2.09	15.0	175	1.0 Drier	92.5	0	0	0
9/12/21	10	approx. test site locations.	2.07	18.0	100.0	2.07	18.5	175	0.0 Drier	98.5	0	0	0
9/12/21	11		2.06	19.0	99.5	2.07	19.0	175	0.0 Drier	100.0	0	0	0
9/12/21	12		2.02	21.0	97.5	2.06	20.5	175	0.5 Wetter	103.5	0	0	0

NOTES: Clayey Fill Ex. Onsite

Compaction specimens sampled after compaction.

Test sites located - Geolab Procedure 4, Part 4.4.

Start Time: 7:45am 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.

NATA

TECHNICAL COMPETENCE

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)

Accredited for compliance with ISO/IEC

17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE

(Approved Signatory)

Issue Date: 14/12/2021



REPORT NO.: # 1861/323

14 Ravenhall Way, Ravenhall, Vic 3023 Email: info@geolab.com.au PH: (03) 8361-9140 LOCATION: DRAPERS - Armstrong, Stage 33, Mt Duneed

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)
9/12/21	13		1.97	19.5	98.0	2.01	20.5	175	1.0 Drier	95.5	0	0	0
9/12/21	14		2.06	20.0	101.5	2.03	20.0	175	0.0 Drier	100.0	0	0	0
9/12/21	15	Refer to #1861/326 for	2.01	19.0	98.5	2.04	18.5	175	0.5 Wetter	102.5	0	0	0
9/12/21	16	approx. test site locations.	1.94	26.0	96.5	2.02	24.0	175	2.0 Wetter	108.5	0	0	0
9/12/21	17		1.91	27.5	95.0	2.01	24.0	175	3.5 Wetter	115.0	0	0	0
9/12/21	18		2.03	22.5	100.5	2.02	22.0	175	0.0 Wetter	101.0	0	0	0

NOTES: Clayey Fill Ex. Onsite

Compaction specimens sampled after compaction.

Test sites located - Geolab Procedure 4, Part 4.4.

Start Time: 7:45am 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.

NATA

TECHNICAL COMPETENCE

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)

Accredited for compliance with ISO/IEC

17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE

(Approved Signatory)

Issue Date: 14/12/2021



REPORT NO.: # 1861/324

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

DRAPERS - Armstrong, Stage 33, Mt Duneed LOCATION:

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)
9/12/21	19		1.98	18.5	98.5	2.02	18.5	175	0.0 Wetter	101.5	0	0	0
9/12/21	20		2.06	18.5	102.0	2.01	18.5	175	0.0 Drier	100.0	0	0	0
9/12/21	21	Refer to #1861/326 for	2.17	15.5	99.5	№ 2.18	15.5	175	0.0 Drier	100.0	5	0	0
9/12/21	22	approx. test site locations.	2.10	19.5	100.0	2.10	19.0	175	0.5 Wetter	104.0	0	0	0
9/12/21	23		2.03	17.5	97.0	2.09	18.0	175	0.0 Drier	98.5	0	0	0
9/12/21	24		2.05	18.0	97.5	2.10	18.0	175	0.0 Drier	98.5	0	0	0

NOTES: Clayey Fill Ex. Onsite

Compaction specimens sampled after compaction.

Test sites located - Geolab Procedure 4, Part 4.4.

Start Time: 7:45am 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.

NATA

TECHNICAL COMPETENCE

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: 14/12/2021



14 Ravenhall Way, Ravenhall, Vic 3023

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

DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 1861/325

LOCATION:

DRAPERS - Armstrong, Stage 33, Mt Duneed

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)
9/12/21	25		2.01	19.5	99.0	2.04	19.5	175	0.5 Drier	97.5	0	0	0
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	Refer to #1861/326 for approx. test site	-	-	-	-	-	-	-	-	-	-	-
-	-	approx. test sue locations.	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-1	-	-

NOTES: Clayey Fill Ex. Onsite

Compaction specimens sampled after compaction.

Test sites located - Geolab Procedure 4, Part 4.4.

Start Time: 7:45am 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.

NATA

TECHNICAL COMPETENCE

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)

Accredited for compliance with ISO/IEC

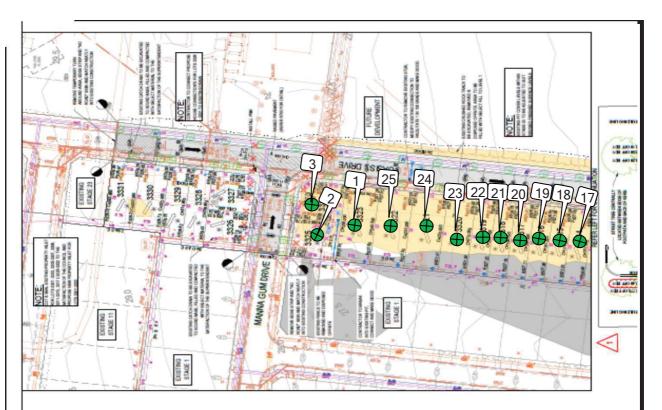
17025 - Testing

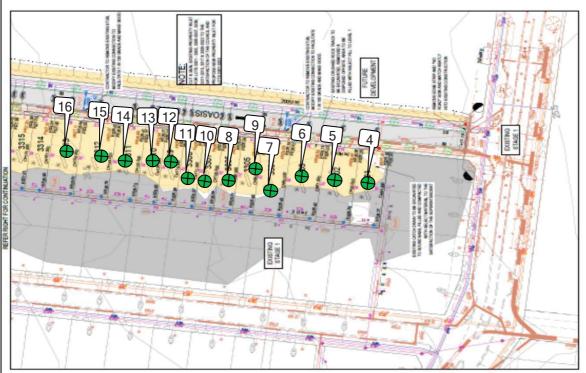
NATA Accredited Laboratory Number 14561

MICK CROWE

(Approved Signatory)

Issue Date: 14/12/2021







GEOTECHNICAL LABORATORIES ACN 102 571 077

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CLIENT: DRAPERS

LOCATION: Armstrong Estate Stage 33

Sketch indicating approx. compaction test locations

DATE: 9/12/2021 JOB No.: 1861/326

OPERATOR: TC CHECKED: KK

SCALE: NTS FIGURE No: -