CHADWICK GEOTECHNICS

REPORT

Level 1 Geotechnical Inspection and Testing Authority Services

Riverfield Square Estate Stage 38
Lots 3801 to Lot 3843

Prepared for:

Greenridge Properties Pty Ltd

November 2026

Our Ref: 1091938.038.v1

25 Metcalf Street, Dandenong South, VIC 3175, Melbourne, Australia
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Document Control

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Date	**Version**	**Description**	**Prepared by:**	**Reviewed by:**	**Authorised by**
November 2026	1	Final	R. Barden	D. Glover	M. Di Meglio

Distribution:

Greenridge Properties Pty Ltd	1 PDF copy
Beveridge Williams & Co Pty Ltd	1 PDF copy
Chadwick Geotechnics Pty Ltd (File)	1 copy

1 Introduction

Chadwick Geotechnics Pty Ltd (Chadwick Geotechnics) was engaged by Greenridge Properties Pty Ltd to provide Level 1 Geotechnical Inspection and Testing Authority (GITA) services for the earthworks conducted within Stage 38 of the Riverfield Square Estate in Clyde North between 20 February 2026 and 20 October 2026.

This report provides a summary of the earthworks carried out within Stage 38 of the Riverfield Estate development.

2 Project details

2.1 Location

Stage 38 is located to the east of Stage 37, south of Stage 24, west of Stage 39, and north of Viridian Boulevard.

The Stage 38 site is shown on the Site Plan in Appendix A and Figure 2.1 presents an annotated extract from the Beveridge Williams design drawings.

Figure 2.1: Site area (extract from Beveridge Williams reference # 2101578, drawing number 010)



2.2 Roles and abbreviations

The organisations involved with the project and their roles are presented in Table 2.1

Table 2.1: Project roles

Role	Organisation
Developer	Greenridge Properties Pty Ltd
Geotechnical Inspection and Testing Authority (GITA)	Chadwick Geotechnics Pty Ltd
Designer / Superintendent	Beveridge Williams Pty Ltd
Earthworks Contractor	Brown Property Group Pty Ltd

Chadwick Geotechnics undertook the field density testing, and the compaction laboratory testing was conducted in our NATA accredited laboratory in Dandenong South (NATA No.12719).

The abbreviations used in this report are listed in Table 2.2 below.

Table 2.2: Abbreviations

Abbreviation	Definition
AS	Australian Standard
AS3798-2007	Guidelines on earthworks for commercial and residential developments
EPA	Environmental Protection Authority
GITA	Geotechnical Inspection and Testing Authority
MC	Moisture Content
SMDD	Standard Maximum Dry Density
NATA	National Association of Testing Authorities (Australia)
SOMC	Standard Optimum Moisture Content
PI	Plasticity Index
PSD	Particle Size Distribution

2.3 Dates on site

Geotechnical and engineering staff from Chadwick Geotechnics were onsite for the duration of the earthworks program on the days shown in Table 2.3 below.

Table 2.3: Level 1 GITA – onsite presence

Month	Dates on site
February 2026	20, 23, 25
March 2026	6, 16, 19, 20, 23, 24, 26
April 2026	1, 15, 20, 23,
August 2026	4
September 2026	30
October 2026	1, 20

2.4 Included Areas

This report is applicable to material placed by the contractor on the residential lots within the Riverfield Square Estate Stage 38 site as shown on Figure 2.1 and on the Site Plan in Appendix A, with reference to Section 2.5 (Excluded Areas) of this report.

The following Lots were filled (or partially filled) during the Level 1 GITA supervision:

- Lots 3801 to Lot 3843

The stripping process resulted in some localised overexcavation in areas not planned to be filled. Controlled fill was placed and compacted in these areas to achieve the design levels. Consequently, there was a difference in lots planned to be filled and those where fill was actually placed.

2.5 Excluded Areas

This report does not include fill outside the general boundary of the filled lots as shown in Figure 2.1. No fill was placed on the lots not mentioned in Section 2.4 of this report.

Backfill of trenches for the underground services, fill on footpaths, driveways and roads, or placement of topsoil, were not part of the scope for the works supervised by Chadwick Geotechnics.

3 Specification

There was no formal specification provided for the earthworks. The works were conducted in general accordance with the AS3798-2007 and the earthworks practices adopted across the broader Riverfield Estate development.

The following items were adopted as part of the project earthworks specifications:

- All filling shall be undertaken in accordance with AS3798-2007 “Guidelines on Earthworks for Commercial and Residential Development”.

- The fill soils to comply with the 'Suitable Material' in accordance with Section 4.4 of AS3798-2007, and the following:
  - Maximum particle size of 150mm.
  - Particles over 37.5mm diameter not to exceed 20% of the material.
- Organic soils, topsoil, silts, or soils containing organic matter, wood, plastics, metal, or other deleterious materials are not acceptable.
- Subgrade to be proof rolled prior to placement of an engineered fill.
- Fill to be compacted in near horizontal layers not exceeding 250mm loose thickness.
- Compaction to achieve a ratio of at least 95% Standard Maximum Dry Density (SMDD).
- Frequency of testing to be in accordance with Table 8.1 of AS3798-2007.

4 Inspection and Testing

The inspection and testing of earthworks have been carried out in accordance with AS3798-2007 with a frequency of field density tests as per Table 8.1 (explained in Section 4.5 of this report). Compaction control laboratory testing was performed in a Chadwick Geotechnics NATA accredited laboratory in accordance with AS1289 'Methods of Testing Soils for Engineering Purposes'.

4.1 Earthworks

The earthworks for the project comprised of the following phases:

- Stripping of topsoil from the proposed fill areas.
- Assessment, remediation, and proof rolling of subgrade.
- Placement and compaction of engineered fill.

4.2 Fill material

Fill materials used during construction at the site comprised of local sandy clay and clayey sands won from the road boxing and trench excavations on this and surrounding sites.

Two bulk samples were sampled during earthwork filling works; the material compliance test results are tabulated in Table 4.1 below. The laboratory test certificates are attached in Appendix D.

Table 4.1: Compliance test results summary

Sample #	Particle Size Distribution (PSD)						Liquid Limit %	Plastic Limit %	Plasticity Index %
	37.5 mm	13.2 mm	4.75 mm	1.18 mm	425 µm	0.75 µm			
S26DS-01555/1	100	100	98	97	87	39	36	12	24
S26DS-02726/1	100	100	100	97	71	20	37	18	19

The laboratory test results indicate the fill material is a mixture of sandy clay and clayey sand of medium plasticity and satisfied the requirements of the specification.

The material was deemed as being derived from natural soils. The soil is considered as 'Suitable Material' in accordance with Section 4.4 of the AS3798-2007.

The material imported and placed at the site was assessed by the Superintendent as being derived from natural soils and meeting the classification of 'Fill Material' as defined in EPA publication 1828.3-2024 "Waste disposal categories – characteristics and thresholds". Environmental testing of the material was not within Chadwick Geotechnics' scope.

Any observed organic or deleterious matter including any oversize cobbles or boulders were removed from the tested areas during the fill placement.

Photographs of typical materials used during construction are shown below.

Photograph 4.1: Photographs of the material used on site



Photograph 1: Sandy clay used on site



Photograph 2: Sandy clay used on site

4.3 Subgrade Assessment / Proof Roll

The subgrade was progressively assessed during the period Chadwick Geotechnics personnel were on site. Subgrade assessments were conducted following the removal of natural grasses and topsoil that was present on site.

No soft spots or deflections were encountered during the inspections, and the area was found to be firm and free of vegetation and other deleterious material.

Two photographs of the subgrade phase at the project are shown below.

Photograph 4.2: Subgrade assessment photographs



Photograph 3: Subgrade assessment



Photograph 4: Stripped surface prior to fill placement

4.4 Engineered Fill Construction

All fill material was brought by dump trucks from the local stockpiles, spread with a bulldozer and compacted with a pad foot roller. A water cart was present onsite during the works.

All fill was placed in lift sequences comprising horizontal layers. Chadwick Geotechnics verified that the surface of the stripped area, and that of additional lifts, was thoroughly scarified and moisture conditioned prior to placement of additional layers to prevent delamination at the layer interface. Once the placed fill was approved, the layer was compacted accordingly. Chadwick Geotechnics personnel were on site on a fulltime basis during the placement, moisture conditioning, compaction, and testing of the fill on the dates noted in Table 2.2 of this report.

The following machinery was on site during earthworks.

Table 4.2: Earthworks plant on site

Equipment type	Model
Bulldozer	CAT D6
Compaction	Hamm 15T vibrating pad foot roller
Water cart	Road going and off-road truck
Dump Trucks	Volvo A256 and road-going trucks
Excavator	CAT 25T

Photographs of typical machinery onsite used during construction are shown below.

Photograph 4.3: General earthworks machinery and fill construction photographs



Photograph 5: Vibrating pad foot roller preparing fill



Photograph 6: Bulldozer used on site during fill construction



Photograph 7: Excavator moving earth



Photograph 8: Water cart conditioning clay

4.5 Density and Moisture testing

Field density and moisture content testing was undertaken progressively during the construction of the compacted fill using a calibrated portable density and moisture gauge in accordance with AS1289.5.8.1. The Hilf rapid compaction test was used for peak converted wet density determinations in accordance with AS1289.5.7.1. Test locations were recorded using a handheld GPS unit. A site plan showing the field density test locations is provided in **Appendix A**.

Testing was undertaken at the frequencies listed below, subject to the area and volume worked on the day of testing:

- 1 test per material type per layer per 2500m² or 1 test per 500m³ distributed reasonably evenly or 3 tests per lot – whichever requires the most tests in accordance with Type 1 Earthworks (large scale operations) as defined in Table 8.1 of the AS3798-2007.

Forty-Nine (49) tests were performed during the filling process. Six (6) of the tests did not achieve the recommended density initially. These areas were reworked and retested accordingly. The retests returned passing density and moisture test results.

A summary table of HILF density tests is provided in **Appendix B** and the laboratory test reports are provided in **Appendix C**. Two photographs of field density testing conducted on site are shown below.

Photograph 4.4: Field density / moisture testing photographs



Photo 9: Field density/moisture test



Photo 10: Field density/moisture test

5 Conclusion

On the basis, of our inspections and after considering all test results relating to the project, it is our opinion, so far as it is to be determined, that:

- The materials, used by the earth-works contractor met the geotechnical property requirements of the specification.
- The sourced fill was, considered to be natural, clean, and suitable for use at the site.
- The fill material placed was tested at a suitable frequency in accordance with AS3798-2007- Table 8.1 and the results indicate the compacted clay achieved the density requirement of the specification.
- Given the consistent construction practices followed by the earthworks contractor and as witnessed by the Chadwick Geotechnics, combined with the satisfactory verification of test results achieved, it is inferred that areas of the site between test locations were performed to the same standard as those areas that have been tested.
- Based on observations made by Chadwick Geotechnics Level 1 personal and the results of field and laboratory tests, we consider that the engineered fill within the site (noted in Section 2.5), as far as we have been able to reasonably determine, have been placed in general accordance with the intent of the specification.

- It is our opinion that the earthworks undertaken have been performed in accordance with the requirements of Section 8.2 – Level 1 Inspection and Testing - AS3798-2007 Guidelines on Earthworks for Commercial and Residential Developments.

Chadwick Geotechnics completed its inspection and testing services in October 2026. After this date, the maintenance of the fill is the sole responsibility of the Contractor. If the fill is not well maintained or protected with a sacrificial layer of topsoil or other fill, the uppermost layers and the exposed faces of the engineered fill may deteriorate, as, a result of exposure to varying weather conditions which can cause cracking or heaving of the fill.

Any deterioration will need to be remediated prior to further construction on the site. Chadwick Geotechnics has not provided supervision since the above date and is not responsible for any subsequent deterioration that may have occurred or may occur since that date.

6 Applicability

This report has been prepared for the exclusive use of our client Greenridge Properties Pty Ltd in good faith and in accordance with the Chadwick Geotechnics quality system for the earthworks filling at the site.

Should you require any further information regarding this report, please do not hesitate to contact the undersigned on (03) 8796 7900.

Chadwick Geotechnics Pty Ltd

Report prepared by:	Authorised for Chadwick Geotechnics Pty Ltd by:
.....	.....
Robert Barden	Michael Di Meglio
Project Manager	Project Director

Report reviewed by:

.....

David Glover (PE0015860)

Principal Geotechnical Engineer

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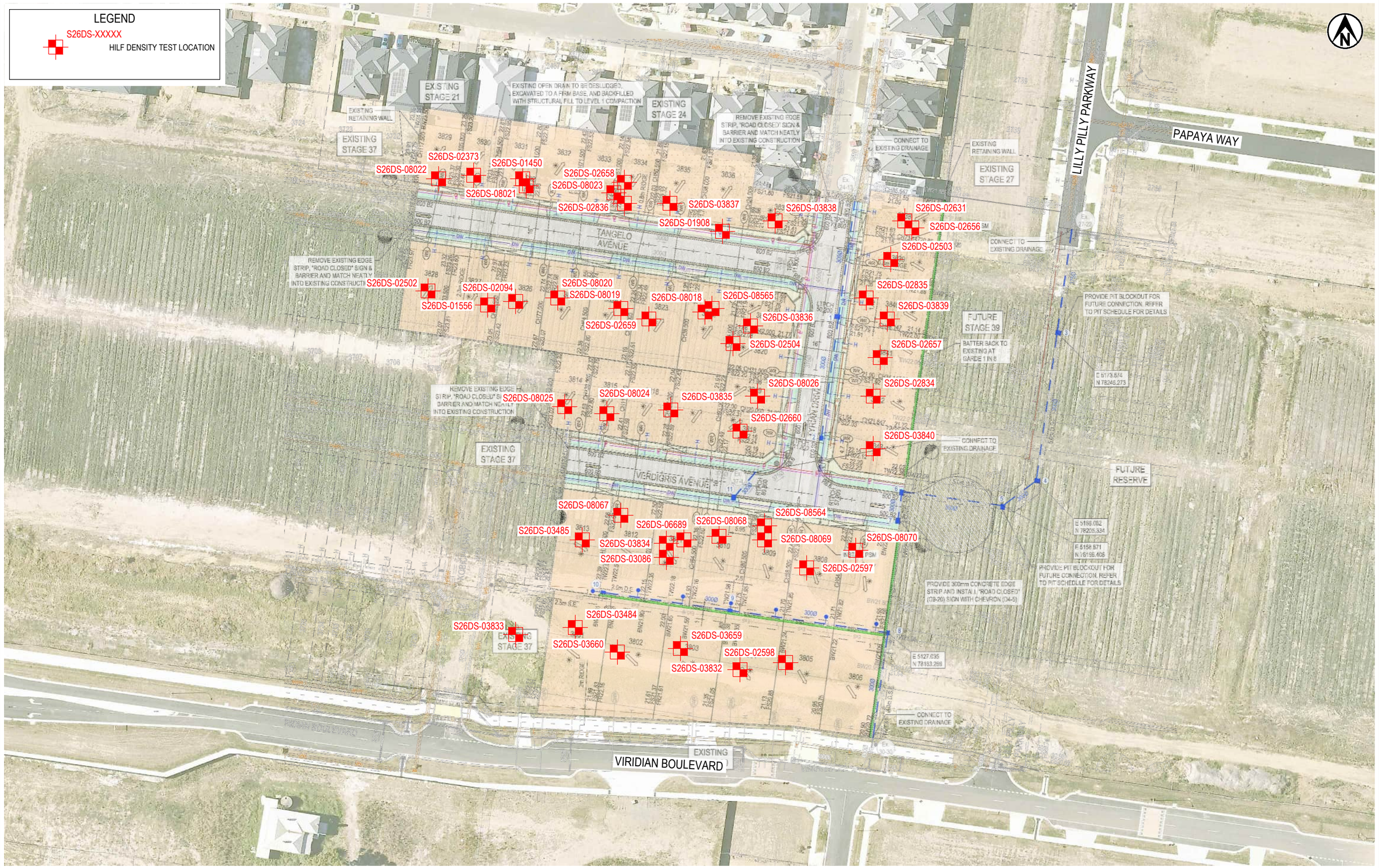
Appendix A Test location plan

COPYRIGHT ON THIS FIGURE IS RESERVED DO NOT SCALE FROM THIS FIGURE - IF IN DOUBT, ASK.

T:\Dandenong\Geo Projects\1091938\WorkingMaterial\1091938.038 Riverfield Square Stage 38\CAD\FIG\1091938.038-F01.dwg 2026-Nov-10 10:39:48 am Plotted By: KATHRYN JACKSON



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A3 SCALE 1:1000
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ORIGINAL IN COLOUR

PROJECT No.	1091938.038	
DESIGNED	RHB	Oct.26
DRAWN	KMJA	Oct.26
CHECKED	RHB	Oct.26
	R. BARDEN	27.10.2026
	APPROVED	DATE

CLIENT **GREENRIDGE PROPERTIES PTY LTD**
PROJECT **RIVERFIELD SQUARE ESTATE - STAGE 38**
TITLE LEVEL ONE HILF DENSITY TESTING
HILF DENSITY TEST LOCATION PLAN
SCALE (A3) 1:1000 FIG No. 1091938.038-F01 REV 1

Appendix B Density and moisture test summary

CHADWICK GEOTECHNICS

Riverfield Square Estate, 1091938.038 Stage 38

HILF Density Testing - Field Summary

Chadwick Geotechnics
25 Metcalf Street
Dandenong South VIC 3175
Tel : (03) 8796 7900
Fax: (03) 9706 9431

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Report No	Sample No	Date	Test Number	Lot No	Easting	Northing	Layer/RL	Density Ratio (≥95 %)	Moisture Variation	Pass / Fail	Comments (Retest No)
HDR:W26DS00381	S26DS-01450	20/02/2026	1	3831 / 1	355027 (5025.270)	5778295	22.396	96.5	0.5 wet	Pass	
HDR:W26DS00415	S26DS-01556	23/02/2026	1	3827 / 3	355017 (5014.752)	5778259 (78256.547)	32.836	97	2 wet	Pass	
HDR:W26DS00509	S26DS-01908	25/02/2026	1	3836 / -	355084 (5080.915)	5778280 (78279.724)	21.48	98	0 wet	Pass	
HDR:W26DS00572	S26DS-02094	6/03/2026	2	3826 / 4	355025 (5024.371)	5778260 (78255.839)	22.862	97.5	0 wet	Pass	
HDR:W26DS00654	S26DS-02373	16/03/2026	1	3830 / 5	355013 (5013.665)	5778296 (78291.741)	23.172	99	0 dry	Pass	
HDR:W26DS00696	S26DS-02502	19/03/2026	1	3828 / -	355000 (4997.199)	5778263 (78259.381)	23.913	102	2 dry	Pass	
HDR:W26DS00696	S26DS-02503	19/03/2026	2	3839 / 1	355132 (5132.153)	5778272 (78265.337)	20.973	102	0 wet	Pass	
HDR:W26DS00696	S26DS-02504	19/03/2026	3	3820 / 1	355087 (5090.631)	5778248 (78242.308)	21.462	100	0.5 wet	Pass	
HDR:W26DS00718	S26DS-02597	20/03/2026	1	3808 / 1	355108 (5107.322)	5778184 (78153.341)	21.829	105	3 dry	Pass	
HDR:W26DS00718	S26DS-02598	20/03/2026	2	3805 / 1	355102 (5103.444)	5778157 (78153.341)	21.059	103.5	5 dry	Fail	See Retest S26DS-03832
HDR:W26DS00730	S26DS-02631	23/03/2026	1	3838 / 2	355136 (5127.723)	5778283 (78277.586)	20.468	99.5	0 dry	Pass	
HDR:W26DS00739	S26DS-02656	24/03/2026	1	3838 / 4	355138 (5135.342)	5778281 (78276.327)	20.901	99	0.5 dry	Pass	
HDR:W26DS00739	S26DS-02657	24/03/2026	2	3841 / 2	355129 (5129.784)	5778244 (78239.463)	21.487	101.5	0 wet	Pass	
HDR:W26DS00739	S26DS-02658	24/03/2026	3	3834 / 2	355056 (5057.367)	5778294 (78286.144)	22.106	94.5	0.5 wet	Fail	See Retest S26DS-2836
HDR:W26DS00739	S26DS-02659	24/03/2026	4	3823 / 2	355063 (5062.713)	5778255 (78247.828)	22.176	98	0.5 wet	Pass	
HDR:W26DS00739	S26DS-02660	24/03/2026	5	3818 / 2	355089 (588.140)	5778223 (78217.505)	22.028	101.5	0 wet	Pass	
HDR:W26DS00775	S26DS-02834	26/03/2026	1	3842 / 3	355127 (5124.929)	5778233 (78226.532)	21.785	97	0 dry	Pass	
HDR:W26DS00775	S26DS-02835	26/03/2026	2	3840 / 3	355125 (5128.412)	5778261 (78254.659)	21.524	98.5	0.5 wet	Pass	

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Riverfield Square Estate, 1091938.038 Stage 38

HILF Density Testing - Field Summary

Chadwick Geotechnics
25 Metcalf Street
Dandenong South VIC 3175
Tel : (03) 8796 7900
Fax: (03) 9706 9431

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Report No	Sample No	Date	Test Number	Lot No	Easting	Northing	Layer/RL	Density Ratio (≥95 %)	Moisture Variation	Pass / Fail	Comments (Retest No)
HDR:W26DS00775	S26DS-02836	26/03/2026	3	3834 / 2	355056 (5057.367)	5778288 (5057.367)	22.106	97.5	0.5 wet	Pass	Retest of S26DS-02658
HDR:W26DS00849	S26DS-03086	1/04/2026	1	3811 / 2	355068	5778187	22.109	94	3 dry	Fail	See Retest S26DS-3834
HDR:W26DS00932	S26DS-03484	15/04/2026	1	3801/1	355042 (5039.420)	5778167 (78163.399)	21.94	95	2 dry	Pass	
HDR:W26DS00932	S26DS-03485	15/04/2026	2	3813/FSL	355044 (5042.577)	5778192 (78188.507)	22.678	96	0.5 wet	Pass	
HDR:W26DS00982	S26DS-03659	20/04/2026	1	3803 / 1	355072 (5073.506)	5778161 (78151.960)	21.075	98	1 wet	Pass	
HDR:W26DS00982	S26DS-03660	20/04/2026	2	3802 / 1	355054 (5052.011)	5778160 (78155.472)	21.73	98	0.5 wet	Pass	
HDR:W26DS01029	S26DS-03832	23/04/2026	1	3804 / -	355089 (5087.791)	5778155 (78151.142)	21.129	99	0 wet	Pass	Retest of S26DS-02598
HDR:W26DS01029	S26DS-03833	23/04/2026	2	3701 / -	355025 (5025.275)	5778165 (78162.747)	22.855	97	2 wet	Pass	
HDR:W26DS01029	S26DS-03834	23/04/2026	3	3811 / -	355068	5778191	22.109	106.5	4 dry	Fail	Retest of S26DS-03086, See Retest 6689
HDR:W26DS01029	S26DS-03835	23/04/2026	4	3816 / -	355090	5778229	22.506	101	0.5 dry	Pass	
HDR:W26DS01029	S26DS-03836	23/04/2026	5	3821 / -	355092	5778253	21.768	98	0.5 dry	Pass	
HDR:W26DS01029	S26DS-03837	23/04/2026	6	3835 / -	355069 (5068.086)	5778288 (78285.127)	22.163	96	0.5 wet	Pass	
HDR:W26DS01029	S26DS-03838	23/04/2026	7	3837 / -	355099 (5097.438)	5778283 (78278.912)	21.718	98.5	0.5 wet	Pass	
HDR:W26DS01029	S26DS-03839	23/04/2026	8	3840 / -	355131 (5132.047)	5778255 (78250.702)	21.873	102	0.5 dry	Pass	
HDR:W26DS01029	S26DS-03840	23/04/2026	9	3843 / -	355127 (5123.865)	5778218 (78215.045)	22.191	103	2 dry	Pass	
HDR:W26DS01793	S26DS-06689	4/08/2026	1	3811 / 3	355073 (5071.771)	5778192 (78192.457)	22.095	103.5	0.5 wet	Pass	Retest of S26DS-03834
HDR:W26DS02174	S26DS-08018	30/09/2026	1	Final	355079 (5079.069)	5778257 (78253.301)	22.097	105	4 dry	Fail	See Retest S26DS-008565
HDR:W26DS02174	S26DS-08019	30/09/2026	2	Final	355055 (5053.126)	5778258 (78254.092)	22.581	103.5	2.5 dry	Pass	

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Riverfield Square Estate, 1091938.038 Stage 38

HILF Density Testing - Field Summary

Chadwick Geotechnics
25 Metcalf Street
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Tel : (03) 8796 7900
Fax: (03) 9706 9431

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Report No	Sample No	Date	Test Number	Lot No	Easting	Northing	Layer/RL	Density Ratio (≥95 %)	Moisture Variation	Pass / Fail	Comments (Retest No)
HDR:W26DS02174	S26DS-08020	30/09/2026	3	Final	355037 (5036.277)	5778261 (78256.862)	22.915	102	2 dry	Pass	
HDR:W26DS02174	S26DS-08021	30/09/2026	4	Final	355028 (5035.729)	5778293 (78287.459)	22.809	95.5	2 wet	Pass	
HDR:W26DS02174	S26DS-08022	30/09/2026	5	Final	355003 (5000.662)	5778295 (78291.512)	23.586	102	0.5 dry	Pass	
HDR:W26DS02174	S26DS-08023	30/09/2026	6	Final	355053 (5050.632)	5778291 (78286.63)	22.514	100.5	0.5 dry	Pass	
HDR:W26DS02174	S26DS-08024	30/09/2026	7	Final	355051 (5048.463)	5778228 (78223.650)	22.75	101	2.5 dry	Pass	
HDR:W26DS02174	S26DS-08025	30/09/2026	8	Final	355039 (5038.197)	5778230 (78224.687)	22.909	101	3 dry	Pass	
HDR:W26DS02174	S26DS-08026	30/09/2026	9	Final	355094 (5091.718)	5778233 (78229.466)	22.092	102	2 dry	Pass	
HDR:W26DS02187	S26DS-08067	1/10/2026	1	3812 - Final	355055 (5053.430)	5778199 (78193.430)	22.604	99	3 dry	Pass	
HDR:W26DS02187	S26DS-08068	1/10/2026	2	3810 / Final	355083 (5081.671)	5778193 (78188.471)	22.322	101.5	2.5 dry	Pass	
HDR:W26DS02187	S26DS-08069	1/10/2026	3	3809 / Final	355096 (5094.411)	5778192 (78187.613)	22.23	102	4.5 dry	Fail	See Retest S26DS-008564
HDR:W26DS02187	S26DS-08070	1/10/2026	4	3807 / Final	355122 (5120.079)	5778189 (78185.165)	22.058	105	3 dry	Pass	
HDR:W26DS02315	S26DS-08564	20/10/2026	1	3809 / Final	355096	5778196	22.23	115.5	2.5 dry	Pass	Retest of S26DS-08069
HDR:W26DS02315	S26DS-08565	20/10/2026	2	3822 / Final	355081	5778258	22.097	98.5	2.5 dry	Pass	Retest of S26DS-08018

Appendix C NATA compaction laboratory reports

CHADWICK GEOTECHNICS

Think Act Safe Be

Dandenong South
ACN 143 009 330
25 Metcalf Street
DANDENONG SOUTH, VIC 3175

Ph: + 61 3 8796 7900
Fax: +61 3 9706 9431

Report No: HDR:W26DS00381
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 37
Project No.: 1091938.037
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)
Date of Issue: 6/03/2026

THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S26DS-01450					
Field Sample ID	1					
Date Tested	20/02/2026					
Time Tested	08:50					
E:	355027 (5025.270)					
N:	5778295 (78294.076)					
EL:	22.396					
Lot / Layer:	3831 / 1					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Moisture Content (%)	16.1					
Field Moisture Content Method	AS 1289.2.1.1					
Field Wet Density (t/m³)	2.03					
Field Dry Density (t/m³)	1.75					
Peak Converted Wet Density (t/m³)	2.10					
Optimum Moisture Content (%)	16.0					
Compactive Effort	Standard					
Moisture Ratio (%)	102.0					
Moisture Variation (%)	0.5 wet					
Hilf Density Ratio (%)	**96.5**					

Comments

Results relate only to the items tested/sampled.

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CHADWICK GEOTECHNICS

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Report No: HDR:W26DS00415
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)
Date of Issue: 6/03/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S26DS-01556					
Field Sample ID	1					
Date Tested	23/02/2026					
Time Tested	10:05					
E:	355017 (5014.752)					
N:	5778259 (78256.547)					
EL:	32.836					
Lot / Layer:	3827 / 3					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Moisture Content (%)	18.1					
Field Moisture Content Method	AS 1289.2.1.1					
Field Wet Density (t/m³)	2.03					
Field Dry Density (t/m³)	1.72					
Peak Converted Wet Density (t/m³)	2.09					
Optimum Moisture Content (%)	16.0					
Compactive Effort	Standard					
Moisture Ratio (%)	112.0					
Moisture Variation (%)	2.0 wet					
Hilf Density Ratio (%)	**97.0**					

Comments

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Report No: HDR:W26DS00509
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: B. Taseski (Branch Laboratory Manager - Date of Issue: 19/10/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S26DS-01908					
Field Sample ID	1					
Date Tested	25/02/2026					
Time Tested	15:45					
E:	355084 (5080.915)					
N:	5778280 (78279.724)					
EL:	21.48					
Lot / Layer:	3836 / -					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Moisture Content (%)	13.3					
Field Moisture Content Method	AS 1289.2.1.1					
Field Wet Density (t/m³)	2.06					
Field Dry Density (t/m³)	1.82					
Peak Converted Wet Density (t/m³)	2.10					
Optimum Moisture Content (%)	13.0					
Compactive Effort	Standard					
Moisture Ratio (%)	102.0					
Moisture Variation (%)	0.0					
Hilf Density Ratio (%)	**98.0**					

Comments

Results relate only to the items tested/sampled.

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Report No: HDR:W26DS00572
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)
Date of Issue: 20/03/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S26DS-02094					
Field Sample ID	1					
Date Tested	6/03/2026					
Time Tested	13:15					
E:	355025 (5024.371)					
N:	5778260 (78255.839)					
EL:	22.862					
Lot / Layer:	3826 / 4					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Moisture Content (%)	17.3					
Field Moisture Content Method	AS 1289.2.1.1					
Field Wet Density (t/m³)	2.05					
Field Dry Density (t/m³)	1.74					
Peak Converted Wet Density (t/m³)	2.09					
Optimum Moisture Content (%)	17.0					
Compactive Effort	Standard					
Moisture Ratio (%)	101.0					
Moisture Variation (%)	0.0					
Hilf Density Ratio (%)	**97.5**					

Comments

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Report No: HDR:W26DS00654
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)
Date of Issue: 20/03/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported - Dam
Material: Clay

Sample Data

Sample ID	S26DS-02373					
Field Sample ID	1					
Date Tested	16/03/2026					
Time Tested	14:40					
E:	355013 (5013.665)					
N:	5778296 (78291.741)					
EL:	23.172					
Lot / Layer:	3830 / 5					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Moisture Content (%)	19.3					
Field Moisture Content Method	AS 1289.2.1.1					
Field Wet Density (t/m³)	2.01					
Field Dry Density (t/m³)	1.69					
Peak Converted Wet Density (t/m³)	2.04					
Optimum Moisture Content (%)	19.5					
Compactive Effort	Standard					
Moisture Ratio (%)	99.5					
Moisture Variation (%)	0.0					
Hilf Density Ratio (%)	**99.0**					

Comments

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Report No: HDR:W26DS00696
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)
Date of Issue: 22/04/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported - Dam
Material: Clay

Sample Data

Sample ID	S26DS-02502	S26DS-02503	S26DS-02504			
Field Sample ID	1	2	3			
Date Tested	19/03/2026	19/03/2026	19/03/2026			
Time Tested	08:00	16:10	16:20			
E:	355000 (4997.199)	355132 (5132.153)	355087 (5090.631)			
N:	5778263 (78259.381)	5778272 (78265.337)	5778248 (78242.308)			
EL:	23.913	20.973	21.462			
Lot / Layer:	3828 / -	3839 / 1	3820 / 1			
Field and Laboratory Data						
Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Moisture Content (%)	19.7	22.3	17.9			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m³)	1.96	2.05	2.07			
Field Dry Density (t/m³)	1.63	1.68	1.76			
Peak Converted Wet Density (t/m³)	1.92	2.01	2.07			
Optimum Moisture Content (%)	22.0	22.0	17.5			
Compactive Effort	Standard	Standard	Standard			
Moisture Ratio (%)	90.0	100.5	102.5			
Moisture Variation (%)	2.0 dry	0.0	0.5 wet			
Hilf Density Ratio (%)	**102.0**	**102.0**	**100.0**			

Comments

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Report No: HDR:W26DS00718
Issue No: 2
This report replaces all previous issues of report no 'HDR:W26DS00718'.

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: A. Quee (Senior Laboratory Technician)
Date of Issue: 10/11/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported - Dam
Material: Clay

Sample Data

Sample ID	S26DS-02597	S26DS-02598				
Field Sample ID	1	2				
Date Tested	20/03/2026	20/03/2026				
Time Tested	09:10	09:20				
E:	355108 (5107.322)	355102 (5103.444)				
N:	5778184 (78153.341)	5778157 (78153.341)				
EL:	21.829	21.059				
Lot / Layer:	3808 / 1	3805 / 1				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Moisture Content (%)	13.5	11.1				
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1				
Field Wet Density (t/m³)	2.07	2.04				
Field Dry Density (t/m³)	1.83	1.83				
Peak Converted Wet Density (t/m³)	1.98	1.96				
Optimum Moisture Content (%)	16.5	16.0				
Compactive Effort	Standard	Standard				
Moisture Ratio (%)	82.5	69.0				
Moisture Variation (%)	3.0 dry	5.0 dry				
Hilf Density Ratio (%)	**105.0**	**103.5**				

Comments

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Report No: HDR:W26DS00730
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)
Date of Issue: 22/04/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported - Dam
Material: Clay

Sample Data

Sample ID	S26DS-02631					
Field Sample ID	1					
Date Tested	23/03/2026					
Time Tested	15:20					
E:	355136 (5127.723)					
N:	5778283 (78277.586)					
EL:	20.468					
Lot / Layer:	3838 / 2					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Moisture Content (%)	16.0					
Field Moisture Content Method	AS 1289.2.1.1					
Field Wet Density (t/m³)	2.04					
Field Dry Density (t/m³)	1.76					
Peak Converted Wet Density (t/m³)	2.05					
Optimum Moisture Content (%)	16.0					
Compactive Effort	Standard					
Moisture Ratio (%)	98.5					
Moisture Variation (%)	0.0					
Hilf Density Ratio (%)	**99.5**					

Comments

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Report No: HDR:W26DS00739
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)
Date of Issue: 7/05/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported - Dam
Material: Clay

Sample Data

Sample ID	S26DS-02656	S26DS-02657	S26DS-02658	S26DS-02659	S26DS-02660	
Field Sample ID	1	2	3	4	5	
Date Tested	24/03/2026	24/03/2026	24/03/2026	24/03/2026	24/03/2026	
Time Tested	08:40	08:45	15:40	16:00	16:15	
E:	355138 (5135.342)	355129 (5129.784)	355056 (5057.367)	355063 (5062.713)	355089 (588.140)	
N:	5778281 (78276.327)	5778244 (78239.463)	5778294 (78286.144)	5778255 (78247.828)	5778223 (78217.505)	
EL:	20.901	21.487	22.106	22.176	22.028	
Lot / Layer:	3838 / 4	3841 / 2	3834 / 2	3823 / 2	3818 / 2	
Field and Laboratory Data						
Depth of Test (mm)	175	175	175	175	175	
Depth of Layer (mm)	200	200	200	200	200	
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	
Oversize Wet (%)	0	0	0	0	0	
Field Moisture Content (%)	12.9	15.4	16.5	17.2	16.6	
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	
Field Wet Density (t/m³)	2.02	2.13	2.01	2.06	2.11	
Field Dry Density (t/m³)	1.79	1.85	1.72	1.76	1.81	
Peak Converted Wet Density (t/m³)	2.05	2.10	2.12	2.10	2.08	
Optimum Moisture Content (%)	13.5	15.5	16.0	16.5	16.5	
Compactive Effort	Standard	Standard	Standard	Standard	Standard	
Moisture Ratio (%)	96.0	101.0	102.0	104.0	101.0	
Moisture Variation (%)	0.5 dry	0.0	0.5 wet	0.5 wet	0.0	
Hilf Density Ratio (%)	**99.0**	**101.5**	**94.5**	**98.0**	**101.5**	

Comments

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Report No: HDR:W26DS00775
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)
Date of Issue: 7/05/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported - Dam
Material: Clay

Sample Data

Sample ID	S26DS-02834	S26DS-02835	S26DS-02836			
Field Sample ID	1	2	3			
Date Tested	26/03/2026	26/03/2026	26/03/2026			
Time Tested	09:00	09:10	09:20			
E:	355127 (5124.929)	355125 (5128.412)	355056 (5057.367)			
N:	5778233 (78226.532)	5778261 (78254.659)	5778288 (5057.367)			
EL:	21.785	21.524	22.106			
Lot / Layer:	3842 / 3	3840 / 3	3834 / 2			
			Retest of S26DS-02658			
Field and Laboratory Data						
Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Moisture Content (%)	16.6	17.1	16.6			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m³)	2.05	2.07	2.09			
Field Dry Density (t/m³)	1.76	1.77	1.80			
Peak Converted Wet Density (t/m³)	2.12	2.10	2.15			
Optimum Moisture Content (%)	17.0	16.5	16.5			
Compactive Effort	Standard	Standard	Standard			
Moisture Ratio (%)	99.0	103.0	101.5			
Moisture Variation (%)	0.0	0.5 wet	0.5 wet			
Hilf Density Ratio (%)	**97.0**	**98.5**	**97.5**			

Comments

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Report No: HDR:W26DS00849
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)
Date of Issue: 7/05/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported -Dam
Material: Clay

Sample Data

Sample ID	S26DS-03086					
Field Sample ID	1					
Date Tested	1/04/2026					
Time Tested	15:40					
E:	- (5068.442)					
N:	- (78187.654)					
EL:	22.109					
Lot / Layer:	3811 / 2					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Moisture Content (%)	10.9					
Field Moisture Content Method	AS 1289.2.1.1					
Field Wet Density (t/m³)	1.94					
Field Dry Density (t/m³)	1.75					
Peak Converted Wet Density (t/m³)	2.06					
Optimum Moisture Content (%)	14.0					
Compactive Effort	Standard					
Moisture Ratio (%)	78.5					
Moisture Variation (%)	3.0 dry					
Hilf Density Ratio (%)	**94.0**					

Comments

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CHADWICK GEOTECHNICS

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DANDENONG SOUTH, VIC 3175

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Report No: HDR:W26DS00932
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)
Date of Issue: 7/05/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S26DS-03484	S26DS-03485				
Field Sample ID	1	2				
Date Tested	15/04/2026	15/04/2026				
Time Tested	13:50	14:00				
E:	355042 (5039.420)	355044 (5042.577)				
N:	5778167 (78163.399)	5778192 (78188.507)				
EL:	21.940	22.678				
Lot / Layer:	3801 / 1	3813 / Final				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Moisture Content (%)	18.9	18.8				
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1				
Field Wet Density (t/m³)	1.89	2.01				
Field Dry Density (t/m³)	1.59	1.69				
Peak Converted Wet Density (t/m³)	1.98	2.09				
Optimum Moisture Content (%)	21.0	18.5				
Compactive Effort	Standard	Standard				
Moisture Ratio (%)	90.0	103.0				
Moisture Variation (%)	2.0 dry	0.5 wet				
Hilf Density Ratio (%)	**95.0**	**96.0**				

Comments

Results relate only to the items tested/sampled.

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Report No: HDR:W26DS00982
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)
Date of Issue: 7/05/2026

THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported - Dam
Material: Clay

Sample Data

Sample ID	S26DS-03659	S26DS-03660				
Field Sample ID	1	2				
Date Tested	20/04/2026	20/04/2026				
Time Tested	10:10	10:20				
E:	355072 (5073.506)	355054 (5052.011)				
N:	5778161 (78151.960)	5778160 (78155.472)				
EL:	21.075	21.734				
Lot / Layer:	3803 / 1	3802 / 1				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Moisture Content (%)	17.9	18.0				
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1				
Field Wet Density (t/m³)	2.06	2.10				
Field Dry Density (t/m³)	1.75	1.77				
Peak Converted Wet Density (t/m³)	2.10	2.13				
Optimum Moisture Content (%)	17.0	17.5				
Compactive Effort	Standard	Standard				
Moisture Ratio (%)	105.5	103.0				
Moisture Variation (%)	1.0 wet	0.5 wet				
Hilf Density Ratio (%)	**98.0**	**98.0**				

Comments

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Report No: HDR:W26DS01029
Issue No: 2
This report replaces all previous issues of report no 'HDR:W26DS01029'.

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: A. Quee (Senior Laboratory Technician)
Date of Issue: 10/11/2026

THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S26DS-03832	S26DS-03834	S26DS-03835	S26DS-03836	S26DS-03837	S26DS-03838
Field Sample ID	1	3	4	5	6	7
Date Tested	23/04/2026	23/04/2026	23/04/2026	23/04/2026	23/04/2026	23/04/2026
Time Tested	10:30	10:50	10:55	11:04	11:10	11:15
E:	355089 (5087.791)	355068	255090 (5061.910)	- (5092.597)	355069 (5068.086)	355099 (5097.438)
N:	5778155 (78151.142)	5778191	5778229 (7822.583)	- (78253.150)	5778288 (78285.127)	5778283 (78278.912)
EL:	21.129	-	22.506	21.768	22.163	21.718
Lot / Layer:	3804 / -	3811 / -	3816 / -	3821 / -	3835 / -	3837 / -
		Retest of S26DS-03086				
Field and Laboratory Data						
Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0
Field Moisture Content (%)	16.2	9.3	15.4	15.4	15.4	16.2
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	2.06	2.17	2.10	2.05	2.05	2.09
Field Dry Density (t/m³)	1.77	1.98	1.82	1.78	1.78	1.79
Peak Converted Wet Density (t/m³)	2.08	2.03	2.08	2.08	2.14	2.11
Optimum Moisture Content (%)	16.0	13.0	16.0	16.0	15.0	16.0
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	101.5	70.5	95.5	97.0	102.0	102.0
Moisture Variation (%)	0.0	4.0 dry	0.5 dry	0.5 dry	0.5 wet	0.5 wet
Hilf Density Ratio (%)	**99.0**	**106.5**	**101.0**	**98.0**	**96.0**	**98.5**

Comments

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Report No: HDR:W26DS01029
Issue No: 2
This report replaces all previous issues of report no 'HDR:W26DS01029'.

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: A. Quee (Senior Laboratory Technician)
Date of Issue: 10/11/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S26DS-03839	S26DS-03840				
Field Sample ID	8	9				
Date Tested	23/04/2026	23/04/2026				
Time Tested	11:20	11:30				
E:	355131 (5132.047)	355127 (5123.865)				
N:	5778255 (78250.702)	5778218 (78215.045)				
EL:	21.873	22.191				
Lot / Layer:	3840 / -	3843 / -				
Field and Laboratory Data						
Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Moisture Content (%)	17.2	13.3				
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1				
Field Wet Density (t/m³)	2.10	2.15				
Field Dry Density (t/m³)	1.79	1.89				
Peak Converted Wet Density (t/m³)	2.06	2.08				
Optimum Moisture Content (%)	17.5	15.5				
Compactive Effort	Standard	Standard				
Moisture Ratio (%)	97.5	86.0				
Moisture Variation (%)	0.5 dry	2.0 dry				
Hilf Density Ratio (%)	**102.0**	**103.0**				

Comments

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Report No: HDR:W26DS01793
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: B. Taseski (Branch Laboratory Manager -
Date of Issue: 6/08/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S26DS-06689					
Field Sample ID	1					
Date Tested	4/08/2026					
Time Tested	11:00					
E:	355073 (5071.771)					
N:	5778167 (78192.457)					
EL:	22.095					
Lot / Layer:	3811 / 3					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Moisture Content (%)	16.2					
Field Moisture Content Method	AS 1289.2.1.1					
Field Wet Density (t/m³)	2.18					
Field Dry Density (t/m³)	1.87					
Peak Converted Wet Density (t/m³)	2.10					
Optimum Moisture Content (%)	15.5					
Compactive Effort	Standard					
Moisture Ratio (%)	104.5					
Moisture Variation (%)	0.5 wet					
Hilf Density Ratio (%)	**103.5**					

Comments

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Report No: HDR:W26DS02174
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: B. Taseski (Branch Laboratory Manager -
Date of Issue: 5/10/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S26DS-08018	S26DS-08019	S26DS-08020	S26DS-08021	S26DS-08022	S26DS-08023
Field Sample ID	1	2	3	4	5	6
Date Tested	30/09/2026	30/09/2026	30/09/2026	30/09/2026	30/09/2026	30/09/2026
Time Tested	11:00	11:20	11:35	11:50	12:05	12:20
E:	355079 (5079.069)	355055 (5053.126)	355037 (5036.277)	355028 (5035.729)	355003 (5000.662)	355053 (5050.632)
N:	5778257 (78253.301)	5778258 (78254.092)	5778261 (78256.862)	5778293 (78287.459)	5778295 (78291.512)	5778291 (78286.63)
EL:	22.097	22.581	22.915	22.809	23.586	22.514
Layer:	Final	Final	Final	Final	Final	Final

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0
Field Moisture Content (%)	11.8	11.3	15.1	18.5	18.8	14.5
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	2.10	2.17	2.10	2.00	2.04	2.09
Field Dry Density (t/m³)	1.88	1.95	1.82	1.69	1.72	1.82
Peak Converted Wet Density (t/m³)	2.00	2.10	2.06	2.09	2.00	2.08
Optimum Moisture Content (%)	16.0	14.0	17.0	16.5	19.5	15.0
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	73.5	82.5	88.0	112.0	96.0	96.5
Moisture Variation (%)	4.0 dry	2.5 dry	2.0 dry	2.0 wet	0.5 dry	0.5 dry
Hilf Density Ratio (%)	**105.0**	**103.5**	**102.0**	**95.5**	**102.0**	**100.5**

Comments

Results relate only to the items tested/sampled.

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Report No: HDR:W26DS02174
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: B. Taseski (Branch Laboratory Manager - Date of Issue: 5/10/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S26DS-08024	S26DS-08025	S26DS-08026			
Field Sample ID	7	8	9			
Date Tested	30/09/2026	30/09/2026	30/09/2026			
Time Tested	12:35	12:50	13:00			
E:	355051 (5048.463)	355039 (5038.197)	355094 (5091.718)			
N:	5778228 (78223.650)	5778230 (78224.687)	5778233 (78229.466)			
EL:	22.750	22.909	22.092			
Layer:	Final	Final	Final			
Field and Laboratory Data						
Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Moisture Content (%)	11.9	11.9	14.7			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m³)	2.05	2.01	2.08			
Field Dry Density (t/m³)	1.83	1.80	1.82			
Peak Converted Wet Density (t/m³)	2.03	1.99	2.04			
Optimum Moisture Content (%)	14.5	14.5	17.0			
Compactive Effort	Standard	Standard	Standard			
Moisture Ratio (%)	83.0	81.0	88.0			
Moisture Variation (%)	2.5 dry	3.0 dry	2.0 dry			
Hilf Density Ratio (%)	**101.0**	**101.0**	**102.0**			

Comments

Results relate only to the items tested/sampled.

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Report No: HDR:W26DS02187
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: B. Taseski (Branch Laboratory Manager -
Date of Issue: 5/10/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S26DS-08067	S26DS-08068	S26DS-08069	S26DS-08070		
Field Sample ID	1	2	3	4		
Date Tested	1/10/2026	1/10/2026	1/10/2026	1/10/2026		
Time Tested	12:30	13:00	13:20	13:30		
E:	355055 (5053.430)	355083 (5081.671)	355096 (5094.411)	355122 (5120.079)		
N:	5778199 (78193.430)	5778193 (78188.471)	5778192 (78187.613)	5778189 (78185.165)		
EL:	22.604	22.322	22.230	22.058		
Lot / Layer:	3812 - Final	3810 / Final	3809 / Final	3807 / Final		
Field and Laboratory Data						
Depth of Test (mm)	175	175	175	175		
Depth of Layer (mm)	200	200	200	200		
AS Sieve Size (mm)	19.0	19.0	19.0	19.0		
Oversize Wet (%)	0	0	0	0		
Field Moisture Content (%)	10.7	11.4	10.2	11.5		
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1		
Field Wet Density (t/m³)	2.02	2.08	2.05	2.10		
Field Dry Density (t/m³)	1.83	1.87	1.86	1.88		
Peak Converted Wet Density (t/m³)	2.04	2.05	2.01	2.00		
Optimum Moisture Content (%)	13.5	13.5	14.5	14.5		
Compactive Effort	Standard	Standard	Standard	Standard		
Moisture Ratio (%)	78.5	83.0	70.0	79.0		
Moisture Variation (%)	3.0 dry	2.5 dry	4.5 dry	3.0 dry		
Hilf Density Ratio (%)	**99.0**	**101.5**	**102.0**	**105.0**		

Comments

Results relate only to the items tested/sampled.

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CHADWICK GEOTECHNICS

Dandenong South
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Report No: HDR:W26DS02315
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: B. Taseski (Branch Laboratory Manager -
Date of Issue: 27/10/2026

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Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S26DS-08564	S26DS-08565				
Field Sample ID	1	2				
Date Tested	20/10/2026	20/10/2026				
Time Tested	09:00	09:15				
E:	355096 (-)	355081 (-)				
N:	5778196 (-)	5778258 (-)				
EL:	-	-				
Lot / Layer:	3809 / Final	3822 / Final				
	Retest of S26DS-08069	Retest of S26DS-08018				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Moisture Content (%)	21.6	13.0				
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1				
Field Wet Density (t/m³)	2.19	2.00				
Field Dry Density (t/m³)	1.80	1.77				
Peak Converted Wet Density (t/m³)	1.90	2.03				
Optimum Moisture Content (%)	24.5	15.5				
Compactive Effort	Standard	Standard				
Moisture Ratio (%)	89.0	84.0				
Moisture Variation (%)	2.5 dry	2.5 dry				
Hilf Density Ratio (%)	**115.5**	**98.5**				

Comments

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Appendix D NATA compliance laboratory report

CHADWICK GEOTECHNICS

Dandenong South
ACN 143 009 330
25 Metcalf Street
DANDENONG SOUTH, VIC 3175

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Fax: +61 3 9706 9431

Report No: MAT:S26DS-01555/1
Issue No: 1

Material Test Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)
Date of Issue: 20/03/2026

THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Sample Location	E: 355017 (5014.752), N: 5778259 (78256.547), EL: 32.836, Lot: 3827, Layer: 3
Field Sample ID	1
Date Sampled	23/02/2026
Time Sampled	10:05
Source	Onsite
Material	SC Clayey SAND, brown, fine to coarse grained, medium plasticity clay
Specification	AS Grading
Sampling Method	AS1289.1.2.1 Clause 6.4 (b)
Sample ID	S26DS-01555

Other Test Results

Description	Method	Result	Limits
Moisture Content (%)	AS 1289.2.1.1	18.4	
Date Tested		24/02/2026	
Sample History	AS 1289.1.1	Oven-Dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	7.0	
Mould Length (mm)		250	
Crumbling		No	
Curling		No	
Cracking		No	
Liquid Limit (%)	AS 1289.3.1.2	37	
Plastic Limit (%)	AS 1289.3.2.1	18	
Plasticity Index (%)	AS 1289.3.3.1	19	
Date Tested		10/03/2026	

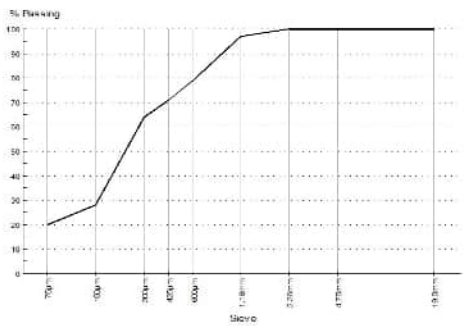
Particle Size Distribution

Method: AS 1289.3.6.1
Drying By: Oven
Date Tested: 26/02/2026

Note: Sample Washed

Sieve Size	% Passing	Limits
19.0mm	100	
4.75mm	100	
2.36mm	100	
1.18mm	97	
600µm	79	
425µm	71	
300µm	64	
150µm	28	
75µm	20	

Chart



Comments

Results relate only to the items tested/sampled.

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Dandenong South
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Report No: MAT:S26DS-02726/1
Issue No: 1

Material Test Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 38
Project No.: 1091938.038
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)
Date of Issue: 22/04/2026

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Sample Details

Sample Location	
Field Sample ID	1
Date Sampled	24/03/2026
Time Sampled	16:15
Material	Cl Sandy CLAY, trace gravel, mottled brown grey, medium plasticity, fine to coarse grained sand
Specification	AS Grading
Sampling Method	
Sample ID	S26DS-02726

Other Test Results

Description	Method	Result	Limits
Moisture Content (%)	AS 1289.2.1.1	15.3	
Date Tested		27/03/2026	
Sample History	AS 1289.1.1	Oven-Dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	10.5	
Mould Length (mm)		250	
Crumbling		No	
Curling		No	
Cracking		No	
Liquid Limit (%)	AS 1289.3.1.2	36	
Plastic Limit (%)	AS 1289.3.2.1	12	
Plasticity Index (%)	AS 1289.3.3.1	24	
Date Tested		31/03/2026	

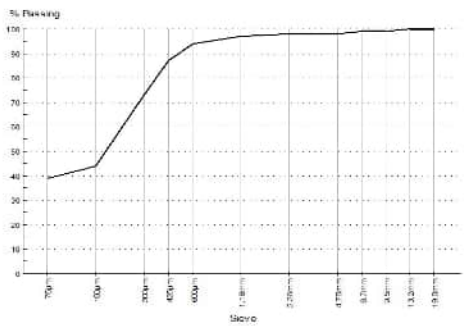
Particle Size Distribution

Method: AS 1289.3.6.1
Drying By: Oven
Date Tested: 2/04/2026

Note: Sample Washed

Sieve Size	% Passing	Limits
19.0mm	100	
13.2mm	100	
9.5mm	99	
6.7mm	99	
4.75mm	98	
2.36mm	98	
1.18mm	97	
600µm	94	
425µm	87	
300µm	73	
150µm	44	
75µm	39	

Chart



Comments

Results relate only to the items tested/sampled.

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Appendix E Controlled fill certificate

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Riverfield Square Stage 38,
Lots 3801 to 3843.

Chadwick Geotechnics REF: 1091938.038.v1

CLIENT : Greenridge Properties Pty Ltd
P.O Box 4136
Dandenong South VIC 3164

DATE: November 2026

SUMMARY

Chadwick Geotechnics Pty Ltd conducted, Level 1 inspection and testing, in accordance with Section 8.2 of *AS3798-2007, Guidelines on earthworks for commercial and residential developments,* during the filling of the site.

So far as can be determined, the fill was placed in accordance with the specifications.

LIMITATIONS

This Certificate has been commissioned for the filling of the lots mentioned above and is based on the site conditions present at the time of the inspections (20 February 2026 and 20 October 2026). No responsibility or liability will be accepted for the use of this report for any purpose other than that for which Chadwick Geotechnics Pty Ltd was engaged, or where there has been a change in the nature of the project or the site conditions since the site testing.

Chadwick Geotechnics Pty Ltd

Robert Barden
Project Coordinator

Michael Di Meglio
Project Director

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CHADWICK
GEOTECHNICS