

Octave At Junction Village Stage 5

GITA Inspection Verification Report

Prepared For:	Streetworks Pty Ltd
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Report Number	P22928A V2
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Version Release Date	3 March 2023
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Report Released By	C Caulfield
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Title	Project Manager
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Signature



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1 Introduction

Terra Firma Laboratories was engaged by Streetworks Pty Ltd as the Geotechnical Inspection and Testing Authority (GITA) to provide Level 1 supervision and testing works on the earthworks component for Octave At Junction Village Stage 5. This work was conducted over the period of 03/02/2022 to 17/02/2022 and 26/11/2022 to 2/12/2022.

This report presents that the allotment earthworks was carried out in accordance with AS3798-2007 *Guidelines for Earthworks for Commercial and Residential Development* and in compliance with the compaction control specifications established by the contractor.

2 Scope of Work

2.1 Area of Work

The areas of work included lots 501 to 507, 510 to 527 and 537 to 549, bounded by streets Riverwood Drive, Ensemble Way, Melody Way and Rondo Street. The site will be a Residential development.

The area on which fill was placed is shown on site plan (Appendix 1: *Test Location Plan*) based on drawings prepared by GPR Consulting Pty Ltd (Drawing Reference: 0329-05-R02 and R03) and provided by Streetworks Pty Ltd.

The supervision work by the GITA involved both inspection of sub grade preparation work and full time inspection and testing of fill placement.

2.2 Specification

The technical specification (Reference from Drawings) for compaction control requirements was provided by Streetworks Pty Ltd and established that:

Test Rolling is required for all layers of structural fill and materials within 150mm of permanent subgrade level so as to withstand test rolling without visible deformation or springing. Corrective action is required where unstable areas exceed 20% of the area being considered by test rolling.

Section 5.2 of AS3798-2007 (Section 5.2) establishes a specification requirement for a minimum density ratio of not less than 95% noting that soils containing more than 20% of particles coarser than 37.5mm cannot be tested for relative compaction using the procedures of AS1289 5.1.1 and AS1289 5.2.1.

In accordance with Table 8.1 (AS3798), for large scale operations, (greater than 1500m²), the minimum testing frequency is 1 test per layer per material type per 2500m² or 1 test per 500m³ distributed reasonable evenly throughout full depth and area or 3 tests per lot. AS3798 defines a lot as “an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work”. All three of these test frequencies must be achieved and this is typically confirmed to have been achieved when 3 tests per visit (day) have been completed.

2.3 Limitations

Terra Firma Laboratories cannot verify any works completed by others outside of the time period specified in the introduction. Uncontrolled works may include, but are not limited to trenching for services, cut and fill works for slab preparation or subsequent removal of vegetation and back fill of holes unless specified in section 2.1 of this report.

Terra Firma Laboratories cannot verify that the material used as a filling medium is free from chemical or other contamination. The scope and the period of Terra Firma Laboratories as described in the introduction are subject to restrictions and limitations. Terra Firma Laboratories did not perform a complete assessment of all possible conditions and circumstances that may exist at the site. If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by Terra Firma Laboratories.

Verification of finished surface level to design levels is outside of the scope of the GITA report.

Any drawings or marked locations presented in this report should be considered only as pictorial evidence of our work. Therefore, unless otherwise stated, any dimensions should not be used for accurate calculations or dimensioning.

Where data has been supplied by the client or a third party, it is assumed that the information is correct unless otherwise stated. No responsibility is accepted by Terra Firma Laboratories for incomplete or inaccurate data supplied by others.

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3 Construction Method

3.1 Subgrade Preparation

At the time of subgrade inspection the following was observed:

- Subgrade preparation involved stripping the site of topsoil, vegetation and organic matter to a depth of approximately 200mm below existing levels.
- The site was cleared of all trees and stumps to the extent necessary for the fill placement to proceed
- The roots of all trees and any debris was removed from site prior to any fill placement

An irrigation system was located across most of the blocks. The pipes were all removed and the trenches backfilled and tested under level 1 supervision.

The sub-grade area was then proof-rolled to confirm it was capable of withstanding test rolling without visible deformation or springing and any areas observed to be soft or otherwise unsuitable were rectified. The sub-grade was watered and scarified prior to fill placement to aid layer bonding.

3.2 Fill Placement

The contractor was observed to have suitable construction equipment and plant available on-site during the construction period for use in the fill placement.

All fill was placed in layers of thicknesses not exceeding 300mm. At the completion of a placed layer, compaction testing was performed to confirm appropriate compaction had been achieved and supported the observations made. It should be noted that the compaction tests are representative samples of the fill placed and support the visual assessment of the works completed. Each house lot does not necessarily require a compaction test to have been conducted within the house allotment but may have been verified by testing conducted within up to a 2500m² area of the house lot.

Final fill placement levels were verified against design level by others. For the purposes of this report, it was observed that finished levels were in accordance with levels marked on site by survey markers.

The final 150mm of material placed across the site was placed as a topsoil layer or growing medium and should be considered as non-structural, as it was placed in an uncontrolled manner, as allowed by specifications and placement of the final 150mm of material was not observed by the GITA.

4 Construction Verification

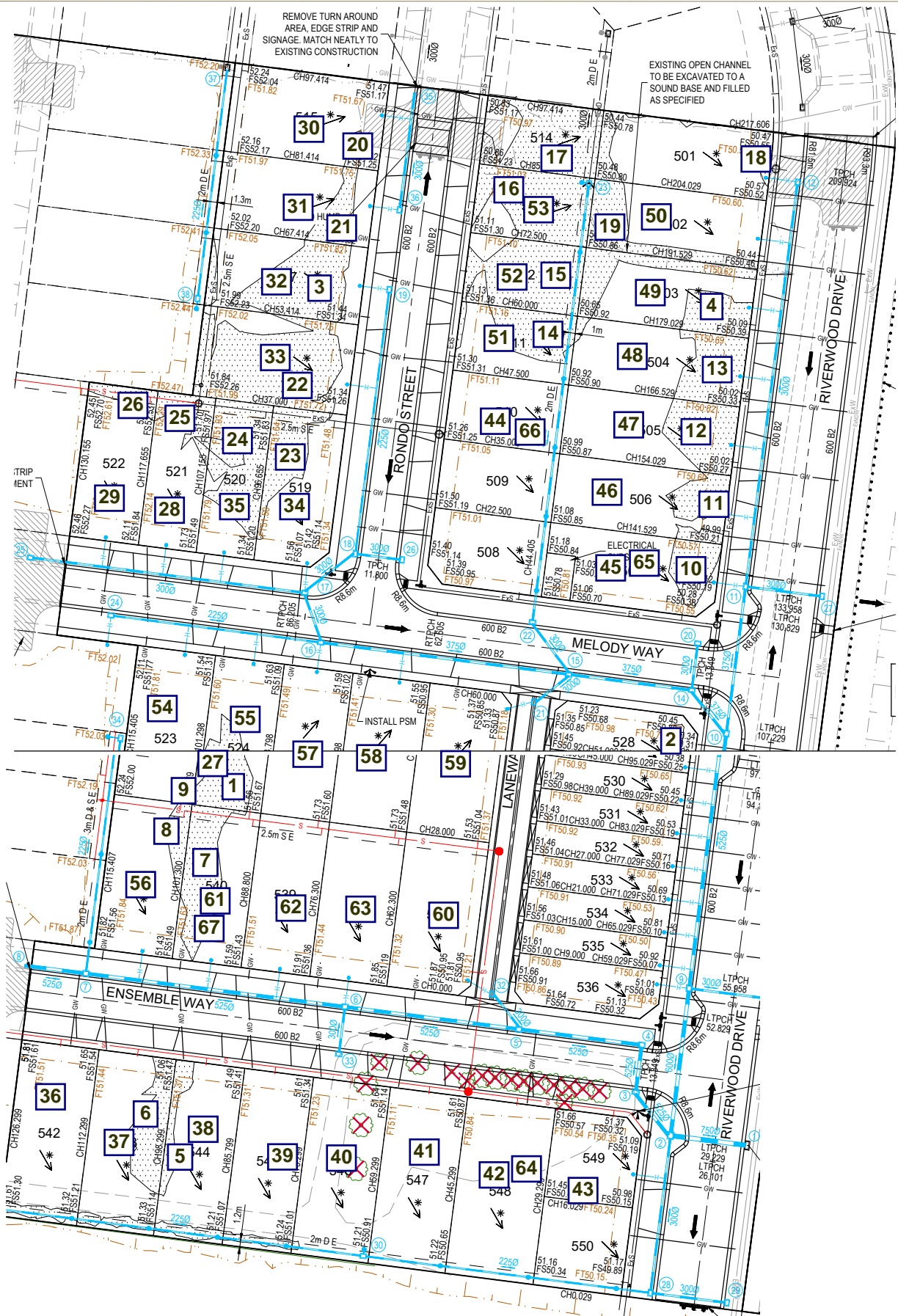
Compaction Verification testing is summarized in a detailed test register with test certificates attached provided in Appendix 2: *Compaction Test Register and Test Certificates*. A test location plan (P22928D1, Appendix 1) providing a schematic of test locations across the extent of scope of works for every placed layer of fill is also documented.

A total of 67 density tests (Hilf method in accordance with 1289 5.7.1) were undertaken with 4 failed results. The contractor was notified of any failed tests and the failed areas were ripped, watered, compacted and then re-tested to confirm compliance with the specification. The results summarised in the compaction test register (Appendix 2) confirm that for every layer of fill placed in a specific work area, satisfactory testing was completed.

5 Statement of Compliance

The intention of this report is to provide a description of the earthworks construction for Stage 5 at Octave at Junction Village. For completed fill areas of greater than 300mm, and for works completed between 03/02/2022 to 17/02/2022 and 26/11/2022 to 2/12/2022, earthworks construction activities were conducted under the full time supervision of the Geotechnical Inspection and Testing Authority. Inspections and testing of the fill areas at this site indicate that both sub grade preparation and fill placement have been conducted in accordance with the specification. The earthworks construction for Stage 5 of Octave at Junction Village was observed to be constructed in compliance with the requirements of the Technical Specification.

Appendix 1: Test Location Plan



Appendix 2: Compaction Test Register and Test Certificates



Compaction Test Register

Client: Streetworks Pty Ltd
Project: Octave at Junction Village Stage 5
Project No: P22928
Specification: 95%

Date:	Test No:	Layer:	Retest of:	Density:	Pass/Fail:	Lot No:	Report No:
3/02/2022	1	Layer 1		94.0%	Fail	Lot 524	P22928-1
3/02/2022	2	Layer 1		99.0%	Pass	Lot 528	P22928-1
3/02/2022	3	Layer 1		99.0%	Pass	Lot 517	P22928-1
4/02/2022	4	Layer 1		99.5%	Pass	Lot 503	P22928-2
12/02/2022	5	Final Layer		97.5%	Pass	Lot 544	P22928-3
17/02/2022	6	Final Layer		100.5%	Pass	Lot 543	P22928-4
17/02/2022	7	Final Layer		98.0%	Pass	Lot 540	P22928-4
17/02/2022	8	Final Layer		101.5%	Pass	Lot 541	P22928-4
17/02/2022	9	Final Layer		101.5%	Pass	Lot 523	P22928-4
17/02/2022	10	Final Layer		103.0%	Pass	Lot 507	P22928-4
17/02/2022	11	Final Layer		99.5%	Pass	Lot 506	P22928-4
17/02/2022	12	Final Layer		95.5%	Pass	Lot 505	P22928-4
17/02/2022	13	Final Layer		101.5%	Pass	Lot 504	P22928-4
17/02/2022	14	Final Layer		102.0%	Pass	Lot 511	P22928-4
17/02/2022	15	Final Layer		99.0%	Pass	Lot 512	P22928-4
17/02/2022	16	Final Layer		102.0%	Pass	Lot 513	P22928-4
17/02/2022	17	Final Layer		104.0%	Pass	Lot 514	P22928-4
17/02/2022	18	Final Layer		98.5%	Pass	Lot 502	P22928-4
17/02/2022	19	Final Layer		99.0%	Pass	Lot 501	P22928-4
17/02/2022	20	Final Layer		99.5%	Pass	Lot 515	P22928-4
17/02/2022	21	Final Layer		96.0%	Pass	Lot 516	P22928-4
17/02/2022	22	Final Layer		99.5%	Pass	Lot 518	P22928-4
17/02/2022	23	Final Layer		100.5%	Pass	Lot 519	P22928-4
17/02/2022	24	Final Layer		98.5%	Pass	Lot 520	P22928-4
17/02/2022	25	Final Layer		101.5%	Pass	Lot 521	P22928-4
17/02/2022	26	Final Layer		98.0%	Pass	Lot 522	P22928-4
17/02/2022	27	Final Layer	Test #1	98.0%	Pass	Lot 524	P22928-4
26/11/2022	28	Layer 1		99.5%	Pass	Lot 521	P22928-5
26/11/2022	29	Layer 2		104.0%	Pass	Lot 522	P22928-5
28/11/2022	30	Layer 2		95.5%	Pass	Lot 515	P22928-6
28/11/2022	31	Layer 1		95.5%	Pass	Lot 516	P22928-6
28/11/2022	32	Layer 2		98.0%	Pass	Lot 517	P22928-6
28/11/2022	33	Layer 1		96.5%	Pass	Lot 518	P22928-6
28/11/2022	34	Layer 2		100.0%	Pass	Lot 519	P22928-6
28/11/2022	35	Layer 2		98.0%	Pass	Lot 520	P22928-6
28/11/2022	36	Layer 1		95.5%	Pass	Lot 542	P22928-6
28/11/2022	37	Layer 1		95.5%	Pass	Lot 543	P22928-6
29/11/2022	38	Layer 2		95.5%	Pass	Lot 544	P22928-7
29/11/2022	39	Layer 2		96.5%	Pass	Lot 545	P22928-7
29/11/2022	40	Layer 1		96.0%	Pass	Lot 546	P22928-7
29/11/2022	41	Layer 1		97.0%	Pass	Lot 547	P22928-7



Compaction Test Register

Client: Streetworks Pty Ltd **Project No:** P22928
Project: Octave at Junction Village Stage 5 **Specification:** 95%

Date:	Test No:	Layer:	Retest of:	Density:	Pass/Fail:	Lot No:	Report No:
29/11/2022	42	Layer 2		94.5%	Fail	Lot 548	P22928-7
29/11/2022	43	Layer 1		95.5%	Pass	Lot 549	P22928-7
29/11/2022	44	Layer 1		94.5%	Fail	Lot 510	P22928-7
29/11/2022	45	Layer 2		93.5%	Fail	Lot 507	P22928-7
29/11/2022	46	Layer 1		99.0%	Pass	Lot 506	P22928-7
29/11/2022	47	Layer 2		97.0%	Pass	Lot 505	P22928-7
29/11/2022	48	Layer 2		96.5%	Pass	Lot 504	P22928-7
29/11/2022	49	Layer 2		95.5%	Pass	Lot 503	P22928-7
29/11/2022	50	Layer 2		96.0%	Pass	Lot 502	P22928-7
29/11/2022	51	Layer 1		98.0%	Pass	Lot 511	P22928-7
29/11/2022	52	Layer 1		95.0%	Pass	Lot 512	P22928-7
29/11/2022	53	Layer 1		97.5%	Pass	Lot 513	P22928-7
30/11/2022	54	Layer 2		97.5%	Pass	Lot 523	P22928-8
30/11/2022	55	Layer 1		96.5%	Pass	Lot 524	P22928-8
30/11/2022	56	Layer 1		96.0%	Pass	Lot 541	P22928-8
30/11/2022	57	Layer 1		99.5%	Pass	Lot 525	P22928-8
30/11/2022	58	Layer 1		95.5%	Pass	Lot 526	P22928-8
30/11/2022	59	Layer 2		96.5%	Pass	Lot 527	P22928-8
30/11/2022	60	Layer 2		97.5%	Pass	Lot 537	P22928-8
30/11/2022	61	Layer 2		94.5%	Fail	Lot 540	P22928-8
30/11/2022	62	Layer 1		98.0%	Pass	Lot 539	P22928-8
30/11/2022	63	Layer 1		97.5%	Pass	Lot 538	P22928-8
30/11/2022	64	Layer 2	Test #42	98.5%	Pass	Lot 548	P22928-8
30/11/2022	65	Layer 2	Test #45	96.5%	Pass	Lot 507	P22928-8
30/11/2022	66	Layer 1	Test #44	99.0%	Pass	Lot 510	P22928-8
2/12/2022	67	Layer 2	Test #61	102.5%	Pass	Lot 540	P22928-9

Material Test Report

Report Number: P22928-1
Issue Number: 1
Date Issued: 18/02/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Work Request: 8125
Date Sampled: 03/02/2022
Dates Tested: 07/02/2022 - 08/02/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 5- level 1
Material: Clayey SAND
Material Source: Onsite



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Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Chris Caulfield
 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	P22-8125A	P22-8125B	P22-8125C
Test Number	1	2	3
Date Tested	03/02/2022	03/02/2022	03/02/2022
Time Tested	**	**	**
Test Request #/Location	Lot 524	Lot 528	Lot 517
Layer / Reduced Level	Layer 1	Layer 1	Layer 1
Thickness of Layer (mm)	300	300	300
Soil Description	Clayey SAND	Clayey SAND	Clayey SAND
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	0	0
Field Wet Density (FWD) t/m ³	1.92	2.14	2.10
Field Moisture Content %	9.2	9.5	14.5
Field Dry Density (FDD) t/m ³	1.76	1.95	1.84
Peak Converted Wet Density t/m ³	2.05	2.16	2.13
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	11.1	10.4	13.1
Adj. Field Moisture Content % (AS1289.5.4.1)	9.2	9.5	14.5
Moisture Ratio % (AS1289.5.4.1)	83.0	91.5	111.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	2.0	1.0	-1.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	94.0	99.0	99.0
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-2
Issue Number: 1
Date Issued: 18/02/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Work Request: 8128
Date Sampled: 04/02/2022
Dates Tested: 07/02/2022 - 08/02/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate stage 5- level 1
Material: Clayey SAND
Material Source: Onsite



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Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Chris Caulfield
 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

Sample Number	P22-8128A		
Test Number	4		
Date Tested	04/02/2022		
Time Tested	**		
Test Request #/Location	Lot 503		
Layer / Reduced Level	Layer 1		
Thickness of Layer (mm)	300		
Soil Description	Clayey SAND		
Test Depth (mm)	275		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0		
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0		
Field Wet Density (FWD) t/m ³	2.20		
Field Moisture Content %	8.3		
Field Dry Density (FDD) t/m ³	2.03		
Peak Converted Wet Density t/m ³	2.21		
Adjusted Peak Converted Wet Density t/m ³	**		
Adj. Optimum Moisture Content % (AS1289.5.4.1)	8.2		
Adj. Field Moisture Content % (AS1289.5.4.1)	8.3		
Moisture Ratio % (AS1289.5.4.1)	101.5		
Adjusted Moisture Ratio % (AS1289.5.4.1)	**		
Moisture Variation (Wv) %	0.0		
Adjusted Moisture Variation %	**		
Hilf Density Ratio (%)	99.5		
Compaction Method	Standard		
Report Remarks	**		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-3
Issue Number: 1
Date Issued: 18/02/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Work Request: 8244
Date Sampled: 11/02/2022
Dates Tested: 12/02/2022 - 14/02/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate stage 5
Material: Sandy CLAY
Material Source: Onsite



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Approved Signatory: Chris Caulfield
 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

Sample Number	P22-8244A		
Test Number	5		
Date Tested	12/02/2022		
Time Tested	**		
Test Request #/Location	Lot 544		
Layer / Reduced Level	Final Layer		
Thickness of Layer (mm)	300		
Soil Description	Clayey SAND		
Test Depth (mm)	275		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0		
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**		
Field Wet Density (FWD) t/m ³	1.95		
Field Moisture Content %	7.9		
Field Dry Density (FDD) t/m ³	1.80		
Peak Converted Wet Density t/m ³	2.00		
Adjusted Peak Converted Wet Density t/m ³	**		
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**		
Adj. Field Moisture Content % (AS1289.5.4.1)	7.9		
Moisture Ratio % (AS1289.5.4.1)	66.0		
Adjusted Moisture Ratio % (AS1289.5.4.1)	**		
Moisture Variation (Wv) %	4.0		
Adjusted Moisture Variation %	**		
Hilf Density Ratio (%)	97.5		
Compaction Method	Standard		
Report Remarks	**		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-4
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Lot numbers corrected
Date Issued: 31/05/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Work Request: 8333
Date Sampled: 17/02/2022
Dates Tested: 17/02/2022 - 21/02/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 5
Material: Clayey SAND
Material Source: Onsite



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Approved Signatory: Chris Caulfield
 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-8333D	P22-8333E	P22-8333F	P22-8333G	P22-8333H	P22-8333I
Test Number	9	10	11	12	13	14
Date Tested	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022
Time Tested	**	**	**	**	**	**
Test Request #/Location	Lot No. 523	Lot No. 507	Lot No. 506	Lot No. 505	Lot No. 504	Lot No. 511
Layer / Reduced Level	Final Layer	Final Layer	Final Layer	Final Layer	Final Layer	Final Layer
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND
Test Depth (mm)	275	275	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	0	**	**	0	0
Field Wet Density (FWD) t/m ³	1.98	2.10	2.05	2.04	2.12	2.17
Field Moisture Content %	6.2	6.0	4.7	5.8	7.7	5.7
Field Dry Density (FDD) t/m ³	1.87	1.98	1.96	1.93	1.97	2.05
Peak Converted Wet Density t/m ³	1.96	2.04	2.06	2.13	2.09	2.13
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	11.1	10.5	9.7	**	11.3	9.4
Adj. Field Moisture Content % (AS1289.5.4.1)	6.2	6.0	4.7	5.8	7.7	5.7
Moisture Ratio % (AS1289.5.4.1)	56.0	57.0	49.0	59.5	68.5	60.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**	**	**
Moisture Variation (Wv) %	5.0	4.5	5.0	4.0	3.5	4.0
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	101.5	103.0	99.5	95.5	101.5	102.0
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-4
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Lot numbers corrected
Date Issued: 31/05/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Work Request: 8333
Date Sampled: 17/02/2022
Dates Tested: 17/02/2022 - 21/02/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 5
Material: Clayey SAND
Material Source: Onsite



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Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Chris Caulfield
 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-8333J	P22-8333K	P22-8333L	P22-8333M	P22-8333N	P22-8333O
Test Number	15	16	17	18	19	20
Date Tested	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022
Time Tested	**	**	**	**	**	**
Test Request #/Location	Lot No. 512	Lot No. 513	Lot No. 514	Lot No. 502	Lot No. 501	Lot No. 515
Layer / Reduced Level	Final Layer	Final Layer	Final Layer	Final Layer	Final Layer	Final Layer
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND
Test Depth (mm)	275	275	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	0	0	0	0	0
Field Wet Density (FWD) t/m ³	2.10	2.09	2.06	2.12	2.12	2.06
Field Moisture Content %	7.3	8.8	9.4	6.6	5.9	6.1
Field Dry Density (FDD) t/m ³	1.95	1.92	1.88	1.98	2.00	1.94
Peak Converted Wet Density t/m ³	2.11	2.05	1.98	2.15	2.14	2.07
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	11.8	13.9	9.1	8.3	9.4
Adj. Field Moisture Content % (AS1289.5.4.1)	7.3	8.8	9.4	6.6	5.9	6.1
Moisture Ratio % (AS1289.5.4.1)	73.0	74.5	68.0	73.0	71.0	65.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**	**	**
Moisture Variation (Wv) %	3.0	3.0	4.5	2.5	2.5	3.5
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	99.0	102.0	104.0	98.5	99.0	99.5
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-4
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Lot numbers corrected
Date Issued: 31/05/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Work Request: 8333
Date Sampled: 17/02/2022
Dates Tested: 17/02/2022 - 21/02/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 5
Material: Clayey SAND
Material Source: Onsite



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-8333P	P22-8333Q	P22-8333R	P22-8333S	P22-8333T	P22-8333U
Test Number	21	22	23	24	25	26
Date Tested	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022
Time Tested	**	**	**	**	**	**
Test Request #/Location	Lot No. 516	Lot No. 518	Lot No. 519	Lot No. 520	Lot No. 521	Lot No. 522
Layer / Reduced Level	Final Layer	Final Layer	Final Layer	Final Layer	Final Layer	Final Layer
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND
Test Depth (mm)	275	275	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	0	0	0	0	0
Field Wet Density (FWD) t/m ³	2.04	2.09	2.07	2.05	2.09	2.00
Field Moisture Content %	8.7	6.9	5.1	6.1	8.3	10.7
Field Dry Density (FDD) t/m ³	1.88	1.95	1.97	1.94	1.93	1.81
Peak Converted Wet Density t/m ³	2.12	2.10	2.06	2.08	2.05	2.04
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	8.5	8.9	8.3	9.8	10.9	12.7
Adj. Field Moisture Content % (AS1289.5.4.1)	8.7	6.9	5.1	6.1	8.3	10.7
Moisture Ratio % (AS1289.5.4.1)	102.0	77.5	62.0	61.5	76.5	84.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**	**	**
Moisture Variation (Wv) %	0.0	2.0	3.5	4.0	2.5	2.0
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	96.0	99.5	100.5	98.5	101.5	98.0
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-4
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Lot numbers corrected
Date Issued: 31/05/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Work Request: 8333
Date Sampled: 17/02/2022
Dates Tested: 17/02/2022 - 21/02/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 5
Material: Clayey SAND
Material Source: Onsite



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-8333V					
Test Number	27					
Date Tested	17/02/2022					
Time Tested	**					
Test Request #/Location	Lot No. 524 RE #1					
Layer / Reduced Level	Final Layer					
Thickness of Layer (mm)	300					
Soil Description	Clayey SAND					
Test Depth (mm)	275					
Sieve used to determine oversize (mm)	19.0					
Percentage of Wet Oversize (%)	0					
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0					
Field Wet Density (FWD) t/m ³	2.01					
Field Moisture Content %	7.2					
Field Dry Density (FDD) t/m ³	1.87					
Peak Converted Wet Density t/m ³	2.05					
Adjusted Peak Converted Wet Density t/m ³	**					
Adj. Optimum Moisture Content % (AS1289.5.4.1)	10.7					
Adj. Field Moisture Content % (AS1289.5.4.1)	7.2					
Moisture Ratio % (AS1289.5.4.1)	67.0					
Adjusted Moisture Ratio % (AS1289.5.4.1)	**					
Moisture Variation (Wv) %	3.5					
Adjusted Moisture Variation %	**					
Hilf Density Ratio (%)	98.0					
Compaction Method	Standard					
Report Remarks	**					

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-4
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Lot numbers corrected
Date Issued: 31/05/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Work Request: 8333
Date Sampled: 17/02/2022
Dates Tested: 17/02/2022 - 21/02/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 5
Material: Clayey SAND
Material Source: Onsite



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Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1

Sample Number	P22-8333A	P22-8333C	
Test Number	6	8	
Date Tested	17/02/2022	17/02/2022	
Time Tested	**	**	
Test Request #/Location	Lot No. 543	Lot No. 541	
Layer / Reduced Level	Final Layer	Final Layer	
Thickness of Layer (mm)	300	300	
Soil Description	Clayey SAND	Clayey SAND	
Test Depth (mm)	275	275	
Fraction Tested (mm)	19.0	19.0	
Oversize (wet basis) %	0	0	
Oversize (dry basis) %	0	0	
Curing Hours	**	**	
Method used to Determine Plasticity	Visual Assessment	Visual Assessment	
Field Wet Density t/m ³	2.00	2.00	
Field Moisture Content %	8.7	6.6	
Field Dry Density t/m ³	1.84	1.88	
Maximum Dry Density t/m ³	1.83	1.85	
Adjusted Maximum Dry Density t/m ³	**	**	
Optimum Moisture Content (OMC) %	13.5	11.5	
Adjusted Optimum Moisture Content (OMC) %	**	**	
Moisture Variation %	5.0	5.0	
Moisture Ratio %	63.5	56.5	
Density Ratio %	100.5	101.5	
Compaction Method	Standard	Standard	

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-5
Issue Number: 1
Date Issued: 30/11/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Client Reference: 7128
Work Request: 10921
Date Sampled: 26/11/2022 12:00
Dates Tested: 26/11/2022 - 28/11/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave stage 5
Material: Clayey SAND
Material Source: Onsite



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

Sample Number	P22-10921A	P22-10921B	
Test Number	28	29	
Date Tested	26/11/2022	26/11/2022	
Time Tested	12:00	12:00	
Test Request #/Location	Lot 521	Lot 522	
Layer / Reduced Level	Layer 1	Layer 2	
Thickness of Layer (mm)	300	300	
Soil Description	Clayey SAND	Clayey SAND	
Test Depth (mm)	275	275	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0	0	
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	
Field Wet Density (FWD) t/m ³	2.04	2.11	
Field Moisture Content %	9.9	13.5	
Field Dry Density (FDD) t/m ³	1.86	1.86	
Peak Converted Wet Density t/m ³	2.05	2.03	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Adj. Optimum Moisture Content % (AS1289.5.4.1)	10.0	14.1	
Adj. Field Moisture Content % (AS1289.5.4.1)	9.9	13.5	
Moisture Ratio % (AS1289.5.4.1)	99.5	95.5	
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	
Moisture Variation (Wv) %	0.0	0.5	
Adjusted Moisture Variation %	**	**	
Hilf Density Ratio (%)	99.5	104.0	
Compaction Method	Standard	Standard	
Report Remarks	**	**	

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-6
Issue Number: 1
Date Issued: 02/12/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Work Request: 10937
Date Sampled: 28/11/2022
Dates Tested: 28/11/2022 - 30/11/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 5 Level One
Material: Silty SAND
Material Source: Onsite



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

Sample Number	P22-10937A	P22-10937B	P22-10937C	P22-10937D
Test Number	30	31	32	33
Date Tested	28/11/2022	28/11/2022	28/11/2022	28/11/2022
Time Tested	**	**	**	**
Test Request #/Location	Lot 515	Lot 516	Lot 517	Lot 518
Layer / Reduced Level	Layer 2	Layer 1	Layer 2	Layer 1
Thickness of Layer (mm)	300	300	300	300
Soil Description	Silty SAND	Silty SAND	Silty SAND	Silty SAND
Test Depth (mm)	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	0	**	0
Field Wet Density (FWD) t/m ³	1.97	2.00	2.06	2.00
Field Moisture Content %	11.7	8.5	8.9	8.1
Field Dry Density (FDD) t/m ³	1.76	1.84	1.89	1.85
Peak Converted Wet Density t/m ³	2.06	2.09	2.10	2.08
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	12.9	10.3	**	9.8
Adj. Field Moisture Content % (AS1289.5.4.1)	11.7	8.5	8.9	8.1
Moisture Ratio % (AS1289.5.4.1)	90.5	83.0	101.5	82.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**
Moisture Variation (Wv) %	1.0	2.0	0.0	2.0
Adjusted Moisture Variation %	**	**	**	**
Hilf Density Ratio (%)	95.5	95.5	98.0	96.5
Compaction Method	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-6
Issue Number: 1
Date Issued: 02/12/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Work Request: 10937
Date Sampled: 28/11/2022
Dates Tested: 28/11/2022 - 30/11/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 5 Level One
Material: Silty SAND
Material Source: Onsite



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

Sample Number	P22-10937E	P22-10937F	P22-10937G	P22-10937H
Test Number	34	35	36	37
Date Tested	28/11/2022	28/11/2022	28/11/2022	28/11/2022
Time Tested	**	**	**	**
Test Request #/Location	Lot 519	Lot 520	Lot 542	Lot 543
Layer / Reduced Level	Layer 2	Layer 2	Layer 1	Layer 1
Thickness of Layer (mm)	300	300	300	300
Soil Description	Silty SAND	Silty SAND	Silty SAND	Silty SAND
Test Depth (mm)	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	**
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	0	0	**
Field Wet Density (FWD) t/m ³	2.20	2.13	2.00	2.04
Field Moisture Content %	11.7	10.2	8.8	10.4
Field Dry Density (FDD) t/m ³	1.97	1.94	1.84	1.85
Peak Converted Wet Density t/m ³	2.19	2.17	2.10	2.14
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	11.9	9.8	9.1	**
Adj. Field Moisture Content % (AS1289.5.4.1)	11.7	10.2	8.8	**
Moisture Ratio % (AS1289.5.4.1)	98.0	104.0	97.0	96.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**
Moisture Variation (Wv) %	0.0	-0.5	0.5	0.5
Adjusted Moisture Variation %	**	**	**	**
Hilf Density Ratio (%)	100.0	98.0	95.5	95.5
Compaction Method	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-7
Issue Number: 1
Date Issued: 02/12/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Work Request: 10957
Date Sampled: 29/11/2022
Dates Tested: 29/11/2022 - 01/12/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 5 Level One
Material: Sandy silty CLAY
Material Source: Onsite



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 Project Manager

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-10957A	P22-10957B	P22-10957C	P22-10957D	P22-10957E	P22-10957F
Test Number	38	39	40	41	42	43
Date Tested	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022
Time Tested	**	**	**	**	**	**
Test Request #/Location	Lot 554	Lot 545	Lot 546	Lot 547	Lot 548	Lot 549
Layer / Reduced Level	Layer 2	Layer 2	Layer 1	Layer 1	Layer 2	Layer 1
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY
Test Depth (mm)	275	275	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	0	**	0	0
Field Wet Density (FWD) t/m ³	2.10	2.03	1.99	2.02	1.94	2.03
Field Moisture Content %	12.6	11.8	8.9	10.6	8.6	11.6
Field Dry Density (FDD) t/m ³	1.86	1.81	1.83	1.83	1.79	1.82
Peak Converted Wet Density t/m ³	2.19	2.10	2.07	2.09	2.05	2.13
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	**	10.2	**	9.6	9.5
Adj. Field Moisture Content % (AS1289.5.4.1)	12.6	11.8	8.9	10.6	8.6	11.6
Moisture Ratio % (AS1289.5.4.1)	118.5	98.5	88.0	99.5	89.5	121.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**	**	**
Moisture Variation (Wv) %	-2.0	0.0	1.5	0.0	1.0	-2.0
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	95.5	96.5	96.0	97.0	94.5	95.5
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-7
Issue Number: 1
Date Issued: 02/12/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Work Request: 10957
Date Sampled: 29/11/2022
Dates Tested: 29/11/2022 - 01/12/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 5 Level One
Material: Sandy silty CLAY
Material Source: Onsite



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 Project Manager

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-10957G	P22-10957H	P22-10957I	P22-10957J	P22-10957K	P22-10957L
Test Number	44	45	46	47	48	49
Date Tested	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022
Time Tested	**	**	**	**	**	**
Test Request #/Location	Lot 510	Lot 507	Lot 506	Lot 505	Lot 504	Lot 503
Layer / Reduced Level	Layer 1	Layer 2	Layer 1	Layer 2	Layer 2	Layer 2
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY
Test Depth (mm)	275	275	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	**	**	**	**	**
Field Wet Density (FWD) t/m ³	1.98	1.98	2.04	2.01	1.99	1.97
Field Moisture Content %	37.4	11.3	11.7	11.9	13.7	14.0
Field Dry Density (FDD) t/m ³	1.44	1.78	1.83	1.80	1.75	1.72
Peak Converted Wet Density t/m ³	2.09	2.12	2.06	2.07	2.06	2.06
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	37.1	11.1	11.0	9.9	**	**
Adj. Field Moisture Content % (AS1289.5.4.1)	37.4	11.3	11.7	11.9	13.7	14.0
Moisture Ratio % (AS1289.5.4.1)	100.5	102.0	106.5	120.0	114.5	100.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**	**	**
Moisture Variation (Wv) %	0.0	-0.5	-1.0	-2.0	-2.0	0.0
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	94.5	93.5	99.0	97.0	96.5	95.5
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-7
Issue Number: 1
Date Issued: 02/12/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Work Request: 10957
Date Sampled: 29/11/2022
Dates Tested: 29/11/2022 - 01/12/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 5 Level One
Material: Sandy silty CLAY
Material Source: Onsite



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Approved Signatory: Chris Caulfield
 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-10957M	P22-10957N	P22-10957O	P22-10957P		
Test Number	50	51	52	53		
Date Tested	29/11/2022	29/11/2022	29/11/2022	29/11/2022		
Time Tested	**	**	**	**		
Test Request #/Location	Lot 502	Lot 511	Lot 512	Lot 513		
Layer / Reduced Level	Layer 2	Layer 1	Layer 1	Layer 1		
Thickness of Layer (mm)	300	300	300	300		
Soil Description	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY		
Test Depth (mm)	275	275	275	275		
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0		
Percentage of Wet Oversize (%)	0	0	0	0		
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	0	**	0		
Field Wet Density (FWD) t/m ³	2.02	2.06	2.02	2.07		
Field Moisture Content %	15.4	8.0	11.9	14.8		
Field Dry Density (FDD) t/m ³	1.75	1.90	1.81	1.81		
Peak Converted Wet Density t/m ³	2.11	2.10	2.13	2.13		
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**		
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	8.3	12.1	13.6		
Adj. Field Moisture Content % (AS1289.5.4.1)	15.4	8.0	11.9	14.8		
Moisture Ratio % (AS1289.5.4.1)	119.0	96.5	98.5	109.0		
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**		
Moisture Variation (Wv) %	-2.5	0.5	0.0	-1.0		
Adjusted Moisture Variation %	**	**	**	**		
Hilf Density Ratio (%)	96.0	98.0	95.0	97.5		
Compaction Method	Standard	Standard	Standard	Standard		
Report Remarks	**	**	**	**		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-8
Issue Number: 1
Date Issued: 08/12/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810

Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Client Reference: 7131
Work Request: 10969
Date Sampled: 30/11/2022
Dates Tested: 30/11/2022 - 02/12/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 5 Level One
Material: Sandy silty CLAY
Material Source: Onsite



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Approved Signatory: Janaka Somaratne
 Lab Manager
 NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-10969A	P22-10969B	P22-10969C	P22-10969D	P22-10969E	P22-10969F
Test Number	54	55	56	57	58	59
Date Tested	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022
Time Tested	**	**	**	**	**	**
Test Request #/Location	Lot 523	Lot 524	Lot 541	Lot 525	Lot 526	Lot 527
Layer / Reduced Level	Layer 2	Layer 1	Layer 1	Layer 1	Layer 1	Layer 2
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND
Test Depth (mm)	275	275	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	3	0	0	2
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	0	**	**	0	**
Field Wet Density (FWD) t/m ³	2.06	2.07	2.10	2.14	2.02	2.10
Field Moisture Content %	9.2	10.6	12.1	9.5	9.1	9.4
Field Dry Density (FDD) t/m ³	1.89	1.87	1.88	1.95	1.85	1.93
Peak Converted Wet Density t/m ³	2.12	2.14	**	2.15	2.11	**
Adjusted Peak Converted Wet Density t/m ³	**	**	2.19	**	**	2.18
Adj. Optimum Moisture Content % (AS1289.5.4.1)	10.0	10.3	10.7	9.8	10.4	10.0
Adj. Field Moisture Content % (AS1289.5.4.1)	9.2	10.6	11.8	9.5	9.1	9.2
Moisture Ratio % (AS1289.5.4.1)	92.0	102.5	**	96.0	87.0	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	109.5	**	**	92.0
Moisture Variation (Wv) %	1.0	-0.5	**	0.5	1.5	**
Adjusted Moisture Variation %	**	**	-1.0	**	**	1.0
Hilf Density Ratio (%)	97.5	96.5	96.0	99.5	95.5	96.5
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-8
Issue Number: 1
Date Issued: 08/12/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Client Reference: 7131
Work Request: 10969
Date Sampled: 30/11/2022
Dates Tested: 30/11/2022 - 02/12/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 5 Level One
Material: Sandy silty CLAY
Material Source: Onsite



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Approved Signatory: Janaka Somaratne
 Lab Manager
 NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-10969G	P22-10969H	P22-10969I	P22-10969J	P22-10969K	P22-10969L
Test Number	60	61	62	63	64	65
Date Tested	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022
Time Tested	**	**	**	**	**	**
Test Request #/Location	Lot 537	Lot 540	Lot 539	Lot 538	Lot 548 RETEST	Lot 507 RETEST
Layer / Reduced Level	Layer 2	Layer 2	Layer 1	Layer 1	Layer 2	Layer 2
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND
Test Depth (mm)	275	275	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	**	0	0	0	**
Field Wet Density (FWD) t/m ³	2.08	2.04	2.06	2.04	2.05	2.05
Field Moisture Content %	11.0	8.0	10.9	7.7	7.9	6.4
Field Dry Density (FDD) t/m ³	1.87	1.88	1.85	1.90	1.90	1.92
Peak Converted Wet Density t/m ³	2.13	2.15	2.10	2.10	2.09	2.12
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	13.0	**	10.8	8.3	7.8	**
Adj. Field Moisture Content % (AS1289.5.4.1)	11.0	8.0	10.9	7.7	7.9	6.4
Moisture Ratio % (AS1289.5.4.1)	85.0	82.0	101.5	92.0	101.5	75.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**	**	**
Moisture Variation (Wv) %	2.0	2.0	0.0	0.5	0.0	2.0
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	97.5	94.5	98.0	97.5	98.5	96.5
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-8
Issue Number: 1
Date Issued: 08/12/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Client Reference: 7131
Work Request: 10969
Date Sampled: 30/11/2022
Dates Tested: 30/11/2022 - 02/12/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 5 Level One
Material: Sandy silty CLAY
Material Source: Onsite



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 Lab Manager
 NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-10969M					
Test Number	66					
Date Tested	30/11/2022					
Time Tested	**					
Test Request #/Location	Lot 510 RETEST					
Layer / Reduced Level	Layer 1					
Thickness of Layer (mm)	300					
Soil Description	Clayey SAND					
Test Depth (mm)	275					
Sieve used to determine oversize (mm)	19.0					
Percentage of Wet Oversize (%)	0					
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**					
Field Wet Density (FWD) t/m ³	2.12					
Field Moisture Content %	9.0					
Field Dry Density (FDD) t/m ³	1.94					
Peak Converted Wet Density t/m ³	2.14					
Adjusted Peak Converted Wet Density t/m ³	**					
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**					
Adj. Field Moisture Content % (AS1289.5.4.1)	9.0					
Moisture Ratio % (AS1289.5.4.1)	87.5					
Adjusted Moisture Ratio % (AS1289.5.4.1)	**					
Moisture Variation (Wv) %	1.5					
Adjusted Moisture Variation %	**					
Hilf Density Ratio (%)	99.0					
Compaction Method	Standard					
Report Remarks	**					

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: P22928-9
Issue Number: 1
Date Issued: 08/12/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22928
Project Name: Octave Estate Stage 5 - Level One
Project Location: Cranbourne
Work Request: 11003
Date Sampled: 02/12/2022 13:00
Dates Tested: 02/12/2022 - 05/12/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 5
Material: Sandy silty CLAY
Material Source: Onsite



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Approved Signatory: Janaka Somaratne
 Lab Manager
 NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	P22-11003A		
Test Number	67		
Date Tested	02/12/2022		
Time Tested	**		
Test Request #/Location	1 Lot 540		
Layer / Reduced Level	Layer 2		
Thickness of Layer (mm)	300		
Soil Description	Sandy silty CLAY		
Test Depth (mm)	275		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0		
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**		
Field Wet Density (FWD) t/m ³	2.09		
Field Moisture Content %	**		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	2.04		
Adjusted Peak Converted Wet Density t/m ³	**		
Adj. Optimum Moisture Content % (AS1289.5.4.1)	11.2		
Adj. Field Moisture Content % (AS1289.5.4.1)	**		
Moisture Ratio % (AS1289.5.4.1)	**		
Adjusted Moisture Ratio % (AS1289.5.4.1)	**		
Moisture Variation (Wv) %	2.0		
Adjusted Moisture Variation %	**		
Hilf Density Ratio (%)	102.5		
Compaction Method	Standard		
Report Remarks	**		

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC