Five Farms Stage 25

GITA Inspection Verification Report

Prepared For:	Fraser Property
Report Number	P231358A V1
Version Release Date	16 Feb 2024
Report Released By	C Caulfield
Title	Laboratory Manager
Signature	

Our Head Office
47 National Ave
Pakenham, VIC 3810

Our Laboratories
Pakenham 03 9769 5799
Deer Park 03 8348 5596
Bibra Lake 08 9395 7220

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Appendices

1 Introduction

Terra Firma Laboratories was engaged by Fraser Property as the Geotechnical Inspection and Testing Authority (GITA) to provide Level 1 supervision and testing works on the earthworks component for Five Farms Stage 25. This work was conducted over the period of 03/03/2023 to 18/10/2023.

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 2501 to 2536, 2538 to 2540 and 2542 to 2548, bounded by streets Wild Goose Way, Avenator Circuit and Heather Grove. 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 Beveridge Williams (Drawing Reference: 1102037 25 010 A and 011 A) and provided by Fraser Property.

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 Fraser Property 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 1500m^2), the minimum testing frequency is 1 test per layer per material type per 2500m^2 or 1 test per 500m^3 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.

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

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 to have been conducted within the house allotment but may have been verified by testing conducted within up to a 2500m^2 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 (P231358D1, 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 50 density tests (Hilf method in accordance with 1289 5.7.1) were undertaken with 3 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 25 at Five Farms. For completed fill areas of greater than 300mm, and for works completed between 03/03/2023 and 18/10/2023, 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 25 of Five Farms was observed to be constructed in compliance with the requirements of the Technical Specification.

Appendix 1: Test Location Plan

Our Head Office
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Our Laboratories
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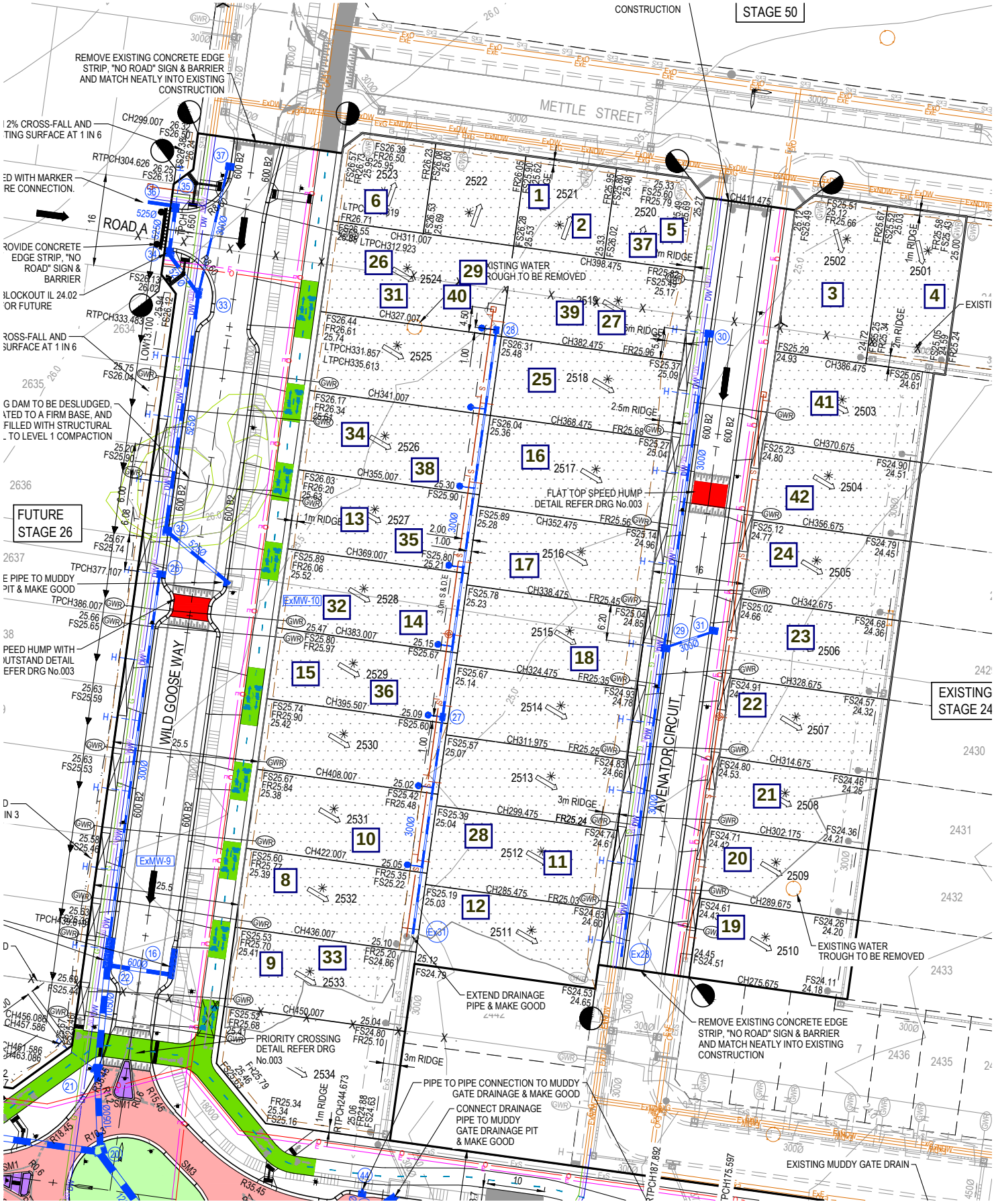
Deer Park 03 8348 5596
Bibra Lake 08 9395 7220



	Water		Electricity		Telecommunication		Sewer	
	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)

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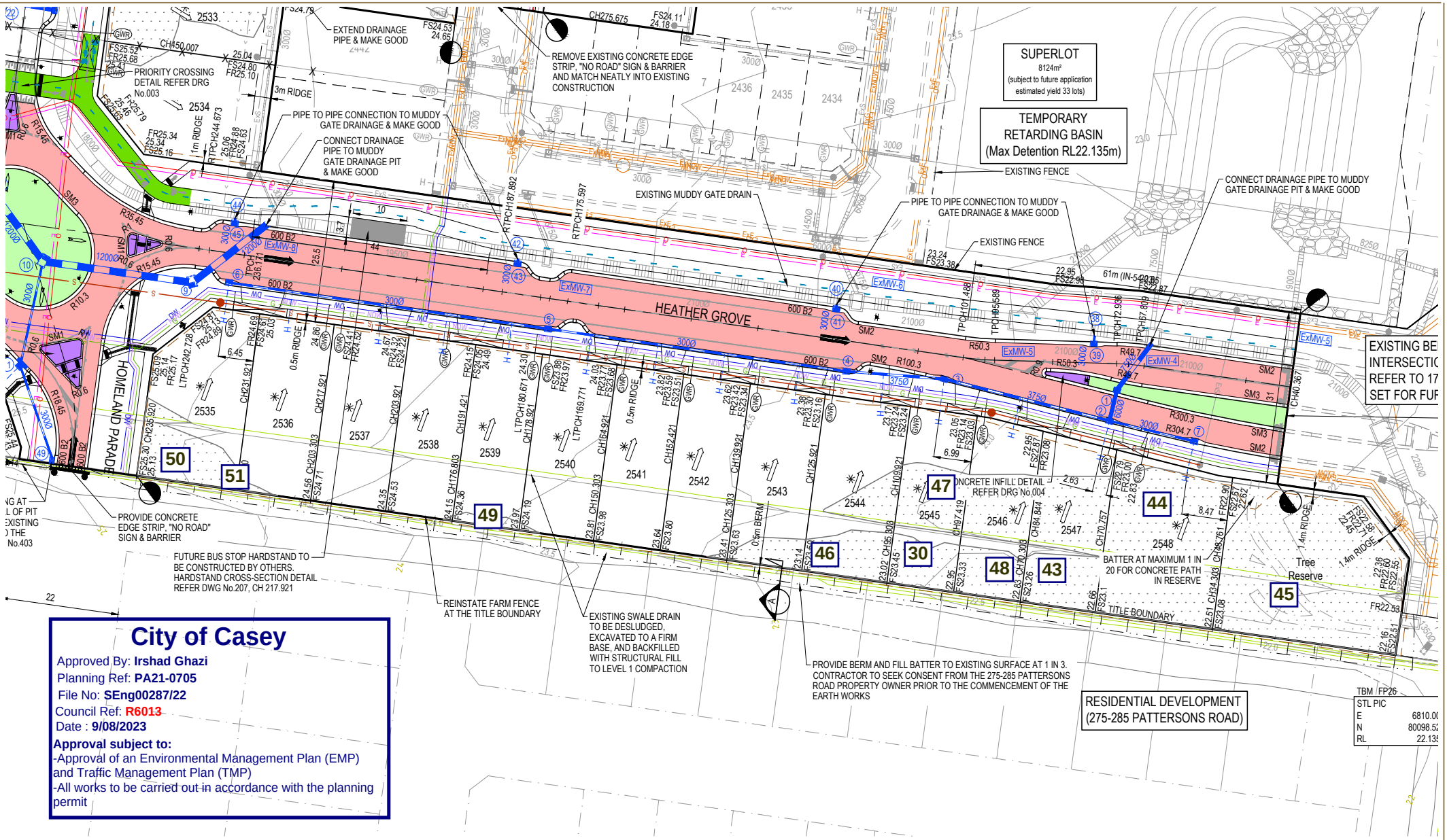
Test Location Plan

not to scale

Client: Fraser Property

Project: Five Farms Stage 25

Reference: P231358 D1



City of Casey

Approved By: **Irshad Ghazi**
Planning Ref: **PA21-0705**
File No: **SEng00287/22**
Council Ref: **R6013**
Date : **9/08/2023**

Approval subject to:
-Approval of an Environmental Management Plan (EMP) and Traffic Management Plan (TMP)
-All works to be carried out in accordance with the planning permit

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Test Location Plan

not to scale

Client: Fraser Property

Project: Five Farms Stage 25

Reference: P231358 D2

Appendix 2: Compaction Test Register and Test Certificates

Compaction Test Register

Client: Fraser Property
Project: Five Farms Stage 25
Project No: P231358
Specification: 95%

Date:	Test No:	Layer:	Retest of:	Density:	Pass/Fail:	Lot No:	Report No:
3/03/2023	1	Layer 1		96.5%	Pass	Lot 2521	P231358-1
4/03/2023	2	Layer 2		96.0%	Pass	Lot 2521	P231358-2
7/03/2023	3	Layer 1		98.0%	Pass	Lot 2502	P231358-3
8/03/2023	4	Layer 3		97.5%	Pass	Lot 2501	P231358-4
20/03/2023	5	Layer 3		94.5%	Fail	Lot 2520	P231358-5
20/03/2023	6	Layer 4		103.0%	Pass	Lot 2523	P231358-5
24/08/2023	8	FSL		99.0%	Pass	Lot 2532	P231358-6
24/08/2023	9	FSL		106.0%	Pass	Lot 2533	P231358-6
24/08/2023	10	FSL		103.5%	Pass	Lot 2531	P231358-6
25/08/2023	11	Layer 1		100.0%	Pass	Lot 2512	P231358-7
25/08/2023	12	Layer 1		101.5%	Pass	Lot 2511	P231358-7
28/08/2023	13	Layer 2		102.5%	Pass	Lot 2527	P231358-8
28/08/2023	14	Layer 2		101.5%	Pass	Lot 2528	P231358-8
28/08/2023	15	Layer 2		99.5%	Pass	Lot 2529	P231358-8
29/08/2023	16	Layer 2		100.0%	Pass	Lot 2517	P231358-9
29/08/2023	17	Layer 2		102.5%	Pass	Lot 2516	P231358-9
29/08/2023	18	Layer 2		104.0%	Pass	Lot 2515	P231358-9
2/09/2023	19	Layer 1		101.0%	Pass	Lot 2510	P231358-10
2/09/2023	20	Layer 1		97.0%	Pass	Lot 2509	P231358-10
2/09/2023	21	Layer 1		102.5%	Pass	Lot 2508	P231358-10
2/09/2023	22	Layer 1		99.0%	Pass	Lot 2507	P231358-10
2/09/2023	23	Layer 1		100.0%	Pass	Lot 2506	P231358-10
2/09/2023	24	Layer 1		99.5%	Pass	Lot 2505	P231358-10
4/09/2023	25	Layer 1		102.0%	Pass	Lot 2518	P231358-11
4/09/2023	26	Layer 1		99.5%	Pass	Lot 2524	P231358-11
4/09/2023	27	Layer 1		87.0%	Fail	Lot 2525	P231358-11
7/09/2023	28	Layer 2		98.5%	Pass	Lot 2512	P231358-12
7/09/2023	29	Layer 2		93.5%	Fail	Lot 2524	P231358-12
7/09/2023	30	Layer 2		99.5%	Pass	Lot 2545	P231358-12
12/09/2023	31	Layer 1		96.0%	Pass	Lot 2524	P231358-13
12/09/2023	32	Layer 1		98.5%	Pass	Lot 2528	P231358-13
12/09/2023	33	Layer 1		97.0%	Pass	Lot 2533	P231358-13
14/09/2023	34	Layer 2		97.5%	Pass	Lot 2526	P231358-14
14/09/2023	35	Layer 2		98.0%	Pass	Lot 2527	P231358-14
14/09/2023	36	Layer 2		102.5%	Pass	Lot 2529	P231358-14
14/09/2023	37	Layer 3	Test #5	101.5%	Pass	Lot 2520	P231358-14
14/09/2023	38	Layer 3		99.5%	Pass	Lot 2526	P231358-14
14/09/2023	39	Layer 1	Test #27	102.5%	Pass	Lot 2525	P231358-14
14/09/2023	40	Layer 2	Test #29	98.5%	Pass	Lot 2524	P231358-14
14/09/2023	41	Layer 3		101.0%	Pass	Lot 2503	P231358-14
14/09/2023	42	Layer 3		100.5%	Pass	Lot 2504	P231358-14

Compaction Test Register

Client: Fraser Property
Project: Five Farms Stage 25
Project No: P231358
Specification: 95%

Date:	Test No:	Layer:	Retest of:	Density:	Pass/Fail:	Lot No:	Report No:
2/10/2023	43	Layer 1		95.5%	Pass	Lot 2547	P231358-15
2/10/2023	44	Layer 1		96.0%	Pass	Lot 2548	P231358-15
2/10/2023	45	Layer 1		95.0%	Pass	Reserve	P231358-15
11/10/2023	46	Finally laye		100.0%	Pass	Lot 2544	P231358-16
11/10/2023	47	Finally laye		97.5%	Pass	Lot 2545	P231358-16
11/10/2023	48	Finally laye		97.0%	Pass	Lot 2546	P231358-16
18/10/2023	49	Final layer		97.0%	Pass	Lot 2539	P231358-17
18/10/2023	50	Final layer		96.5%	Pass	Lot 2536	P231358-17
18/10/2023	51	Final layer		96.0%	Pass	Lot 2536	P231358-17

Material Test Report

Report Number: **P231358-1**
Issue Number: 1
Date Issued: 31/03/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 11786
Date Sampled: 03/03/2023 9:00
Dates Tested: 03/03/2023 - 09/03/2023
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: Five Farms Future Stage 25 Level One
Material: Silty CLAY 50/50 Blend
Material Source: Onsite

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NATA WORLD RECOGNISED ACCREDITATION

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	P23-11786A		
Test Number	7		
Date Tested	03/03/2023		
Time Tested	**		
Test Request #/Location	Lot 2521		
Layer / Reduced Level	Layer 1		
Thickness of Layer (mm)	300		
Soil Description	Silty CLAY 50/50 Blend		
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	1.94		
Field Moisture Content %	**		
Field Dry Density (FDD) t/m^3	**		
Peak Converted Wet Density t/m^3	2.01		
Adjusted Peak Converted Wet Density t/m^3	**		
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**		
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 (%)	**96.5**		
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: **P231358-2**
Issue Number: 1
Date Issued: 31/03/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 11793
Date Sampled: 04/03/2023
Dates Tested: 04/03/2023 - 07/03/2023
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: Five Farms Stage 25
Material: Silty Clay 50/50 Blend
Material Source: Onsite

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NATA WORLD RECOGNISED ACCREDITATION

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	P23-11793A		
Test Number	**		
Date Tested	04/03/2023		
Time Tested	**		
Test Request #/Location	Lot 2521		
Layer / Reduced Level	Layer 2		
Thickness of Layer (mm)	300		
Soil Description	Silty Clay 50/50 Blend		
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	1.96		
Field Moisture Content %	21.9		
Field Dry Density (FDD) t/m^3	1.61		
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)	19.0		
Adj. Field Moisture Content % (AS1289.5.4.1)	21.9		
Moisture Ratio % (AS1289.5.4.1)	115.0		
Adjusted Moisture Ratio % (AS1289.5.4.1)	**		
Moisture Variation (Wv) %	-3.0		
Adjusted Moisture Variation %	**		
Hilf Density Ratio (%)	**96.0**		
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: **P231358-3**
Issue Number: 1
Date Issued: 31/03/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 11816
Date Sampled: 07/03/2023 9:00
Dates Tested: 07/03/2023 - 09/03/2023
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: Five Farms Future Stage 25 Level One
Material: Silty CLAY 50/50 Blend
Material Source: Onsite

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NATA WORLD RECOGNISED ACCREDITATION

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	P23-11816A		
Test Number	3		
Date Tested	07/03/2023		
Time Tested	**		
Test Request #/Location	2502		
Layer / Reduced Level	Layer 1		
Thickness of Layer (mm)	300		
Soil Description	Silty CLAY 50/50 Blend		
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	2.00		
Field Moisture Content %	17.7		
Field Dry Density (FDD) t/m^3	1.70		
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)	**		
Adj. Field Moisture Content % (AS1289.5.4.1)	17.7		
Moisture Ratio % (AS1289.5.4.1)	97.5		
Adjusted Moisture Ratio % (AS1289.5.4.1)	**		
Moisture Variation (Wv) %	0.5		
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: **P231358-4**
Issue Number: 1
Date Issued: 31/03/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 11841
Date Sampled: 08/03/2023 14:00
Dates Tested: 08/03/2023 - 14/03/2023
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: Five Farms Future Stage 25 Level One
Material: Silty CLAY 50/50 Blend
Material Source: Onsite

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Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Chris Caulfield
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NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	P23-11841A		
Test Number	4		
Date Tested	08/03/2023		
Time Tested	**		
Test Request #/Location	Lot 2501		
Layer / Reduced Level	Layer 3		
Thickness of Layer (mm)	300		
Soil Description	Silty CLAY 50/50 Blend		
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	1.96		
Field Moisture Content %	20.4		
Field Dry Density (FDD) t/m^3	1.63		
Peak Converted Wet Density t/m^3	2.01		
Adjusted Peak Converted Wet Density t/m^3	**		
Adj. Optimum Moisture Content % (AS1289.5.4.1)	21.1		
Adj. Field Moisture Content % (AS1289.5.4.1)	20.4		
Moisture Ratio % (AS1289.5.4.1)	96.5		
Adjusted Moisture Ratio % (AS1289.5.4.1)	**		
Moisture Variation (Wv) %	0.5		
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: **P231358-5**
Issue Number: 1
Date Issued: 31/03/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 11936
Date Sampled: 20/03/2023 8:45
Dates Tested: 20/03/2023 - 24/03/2023
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: Five Farms Future Stage 25 Level One
Material: Silty CLAY
Material Source: Onsite

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NATA WORLD RECOGNISED ACCREDITATION

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	P23-11936A	P23-11936B	
Test Number	5	6	
Date Tested	20/03/2023	20/03/2023	
Time Tested	**	**	
Test Request #/Location	Lot 2520	Lot 2523	
Layer / Reduced Level	Layer 3	Layer 4	
Thickness of Layer (mm)	300	300	
Soil Description	Silty CLAY	Silty CLAY	
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	1.85	2.04	
Field Moisture Content %	**	21.6	
Field Dry Density (FDD) t/m^3	**	1.67	
Peak Converted Wet Density t/m^3	1.96	1.98	
Adjusted Peak Converted Wet Density t/m^3	**	**	
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	**	
Adj. Field Moisture Content % (AS1289.5.4.1)	**	21.6	
Moisture Ratio % (AS1289.5.4.1)	**	97.0	
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	
Moisture Variation (Wv) %	2.5	0.5	
Adjusted Moisture Variation %	**	**	
Hilf Density Ratio (%)	**94.5**	**103.0**	
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: **P231358-6**
Issue Number: 1
Date Issued: 30/08/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 13226
Date Sampled: 24/08/2023 8:30
Dates Tested: 24/08/2023 - 25/08/2023
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: Five Farms Stage 25 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	P23-13226A	P23-13226B	P23-13226C
Test Number	8	9	10
Date Tested	24/08/2023	24/08/2023	24/08/2023
Time Tested	**	**	**
Test Request #/Location	Lot 2532	Lot 2533	Lot 2531
Layer / Reduced Level	FSL	FSL	FSL
Thickness of Layer (mm)	300	300	300
Soil Description	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY
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	**
Field Wet Density (FWD) t/m^3	2.01	2.03	2.00
Field Moisture Content %	21.1	24.2	25.5
Field Dry Density (FDD) t/m^3	1.66	1.63	1.60
Peak Converted Wet Density t/m^3	2.03	1.91	1.94
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	21.8	25.6	24.9
Adj. Field Moisture Content % (AS1289.5.4.1)	21.1	24.2	25.5
Moisture Ratio % (AS1289.5.4.1)	97.0	94.5	102.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	0.5	1.5	-0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**99.0**	**106.0**	**103.5**
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: **P231358-7**
Issue Number: 1
Date Issued: 30/08/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 13251
Date Sampled: 25/08/2023 10:30
Dates Tested: 25/08/2023 - 29/08/2023
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: Five Farms Stage 25 Level One
Material: Sandy silty CLAY
Material Source: Onsite

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NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	P23-13251A	P23-13251B	
Test Number	11	12	
Date Tested	25/08/2023	25/08/2023	
Time Tested	**	**	
Test Request #/Location	Lot 2512	Lot 2511	
Layer / Reduced Level	Layer 1	Layer 1	
Thickness of Layer (mm)	300	300	
Soil Description	Sandy silty CLAY	Sandy silty CLAY	
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)	0	0	
Field Wet Density (FWD) t/m^3	2.10	2.16	
Field Moisture Content %	16.5	15.4	
Field Dry Density (FDD) t/m^3	1.80	1.87	
Peak Converted Wet Density t/m^3	2.10	2.13	
Adjusted Peak Converted Wet Density t/m^3	**	**	
Adj. Optimum Moisture Content % (AS1289.5.4.1)	16.5	14.4	
Adj. Field Moisture Content % (AS1289.5.4.1)	16.5	15.4	
Moisture Ratio % (AS1289.5.4.1)	100.0	106.5	
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	
Moisture Variation (Wv) %	0.0	-1.0	
Adjusted Moisture Variation %	**	**	
Hilf Density Ratio (%)	**100.0**	**101.5**	
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: **P231358-8**
Issue Number: 1
Date Issued: 06/09/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 13272
Date Sampled: 28/08/2023 8:45
Dates Tested: 28/08/2023 - 04/09/2023
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: Five Farms Future Stage 25 Level One
Material: Sandy silty CLAY
Material Source: Onsite

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	P23-13272A	P23-13272B	P23-13272C
Test Number	13	14	15
Date Tested	28/08/2023	28/08/2023	28/08/2023
Time Tested	**	**	**
Test Request #/Location	Lot 2527	Lot 2528	Lot 2529
Layer / Reduced Level	Layer 2	Layer 2	Layer 2
Thickness of Layer (mm)	300	300	300
Soil Description	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY
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)	**	**	**
Field Wet Density (FWD) t/m^3	2.15	2.10	2.07
Field Moisture Content %	15.1	19.3	19.3
Field Dry Density (FDD) t/m^3	1.87	1.76	1.73
Peak Converted Wet Density t/m^3	2.09	2.06	2.07
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	15.1	**	**
Adj. Field Moisture Content % (AS1289.5.4.1)	15.1	19.3	19.3
Moisture Ratio % (AS1289.5.4.1)	100.0	102.0	106.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	0.0	-0.5	-1.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**102.5**	**101.5**	**99.5**
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: **P231358-9**
Issue Number: 1
Date Issued: 11/09/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 13291
Date Sampled: 29/08/2023 11:00
Dates Tested: 29/08/2023 - 06/09/2023
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: Five Farms Stage 25 Level One
Material: Sandy silty CLAY
Material Source: Onsite

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	P23-13291A	P23-13291B	P23-13291C
Test Number	16	17	18
Date Tested	29/08/2023	29/08/2023	29/08/2023
Time Tested	**	**	**
Test Request #/Location	Lot 2517	Lot 2516	Lot 2515
Layer / Reduced Level	Layer 2	Layer 2	Layer 2
Thickness of Layer (mm)	300	300	300
Soil Description	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	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	2.07	2.10
Field Moisture Content %	20.0	21.2	20.4
Field Dry Density (FDD) t/m^3	1.70	1.71	1.74
Peak Converted Wet Density t/m^3	2.04	2.02	2.01
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	19.2	**	20.1
Adj. Field Moisture Content % (AS1289.5.4.1)	20.0	**	20.4
Moisture Ratio % (AS1289.5.4.1)	104.5	105.5	101.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-1.0	-1.0	-0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**100.0**	**102.5**	**104.0**
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: **P231358-10**
Issue Number: 1
Date Issued: 06/09/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 13334
Date Sampled: 02/09/2023 8:20
Dates Tested: 02/09/2023 - 05/09/2023
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: Five Farms Stage 25 Level One
Material: Sandy silty CLAY
Material Source: Onsite

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P23-13334A	P23-13334B	P23-13334C	P23-13334D	P23-13334E	P23-13334F
Test Number	19	20	21	22	23	24
Date Tested	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023	02/09/2023
Time Tested	**	**	**	**	**	**
Test Request #/Location	Lot 2510	Lot 2509	Lot 2508	Lot 2507	Lot 2506	Lot 2505
Layer / Reduced Level	Layer 1	Layer 1	Layer 1	Layer 1	Layer 1	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)	**	**	**	**	**	**
Field Wet Density (FWD) t/m^3	2.08	2.00	2.11	2.07	2.08	2.04
Field Moisture Content %	19.6	22.1	21.1	22.6	20.7	21.7
Field Dry Density (FDD) t/m^3	1.74	1.64	1.74	1.69	1.73	1.67
Peak Converted Wet Density t/m^3	2.06	2.06	2.05	2.09	2.08	2.04
Adjusted Peak Converted Wet Density t/m^3	**	**	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	**	**	**	**	**
Adj. Field Moisture Content % (AS1289.5.4.1)	19.6	22.1	21.1	22.6	20.7	21.7
Moisture Ratio % (AS1289.5.4.1)	103.5	119.0	109.0	118.5	119.5	117.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**	**	**
Moisture Variation (Wv) %	-0.5	-3.5	-1.5	-3.5	-3.5	-3.0
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	**101.0**	**97.0**	**102.5**	**99.0**	**100.0**	**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: **P231358-11**
Issue Number: 1
Date Issued: 08/09/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 13343
Date Sampled: 04/09/2023
Dates Tested: 04/09/2023 - 06/09/2023
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: Five Farms Future Stage 25 Level One
Material: Sandy silty CLAY
Material Source: Onsite

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	P23-13343A	P23-13343B	P23-13343C
Test Number	25	26	27
Date Tested	04/09/2023	04/09/2023	04/09/2023
Time Tested	15:32	15:32	15:32
Test Request #/Location	Lot 2518	Lot 2524	Lot 2525
Layer / Reduced Level	Layer 1	Layer 1	Layer 1
Thickness of Layer (mm)	300	300	300
Soil Description	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY
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	1.89	1.87	1.71
Field Moisture Content %	27.4	23.0	25.3
Field Dry Density (FDD) t/m^3	1.49	1.52	1.37
Peak Converted Wet Density t/m^3	1.86	1.88	1.97
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	30.2	26.4	24.3
Adj. Field Moisture Content % (AS1289.5.4.1)	27.4	23.0	25.3
Moisture Ratio % (AS1289.5.4.1)	91.0	87.5	104.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	2.5	3.0	-1.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**102.0**	**99.5**	**87.0**
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: **P231358-12**
Issue Number: 1
Date Issued: 13/09/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 13372
Date Sampled: 07/09/2023 8:45
Dates Tested: 07/09/2023 - 11/09/2023
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: Five Farms Stage 25 Level one Fill
Material: Sandy silty CLAY
Material Source: Onsite

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NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	P23-13372A	P23-13372B	P23-13372C
Test Number	28	29	30
Date Tested	07/09/2023	07/09/2023	07/09/2023
Time Tested	15:00	15:10	15:20
Test Request #/Location	Lot No 2512	Lot No 2524	Lot No 2545
Layer / Reduced Level	Layer 2	Layer 2	Layer 2
Thickness of Layer (mm)	300	300	300
Soil Description	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY
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	2.10	1.98	2.08
Field Moisture Content %	16.4	13.0	18.1
Field Dry Density (FDD) t/m^3	1.80	1.75	1.76
Peak Converted Wet Density t/m^3	2.13	2.12	2.09
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	15.5	12.7	17.5
Adj. Field Moisture Content % (AS1289.5.4.1)	16.4	13.0	18.1
Moisture Ratio % (AS1289.5.4.1)	106.0	102.0	104.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-1.0	0.0	-0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**98.5**	**93.5**	**99.5**
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: **P231358-13**
Issue Number: 1
Date Issued: 21/09/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 13393
Date Sampled: 12/09/2023 8:30
Dates Tested: 12/09/2023 - 20/09/2023
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: Five Farms Stage 25 - Level One
Material: Sandy silty CLAY
Material Source: Onsite

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Approved Signatory: Chris Caulfield
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NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	P23-13393A	P23-13393B	P23-13393C
Test Number	31	32	33
Date Tested	12/09/2023	12/09/2023	12/09/2023
Time Tested	**	**	**
Test Request #/Location	Lot 2524	Lot 2528	Lot 2533
Layer / Reduced Level	Layer 1	Layer 1	Layer 1
Thickness of Layer (mm)	300	300	300
Soil Description	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY
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)	**	**	**
Field Wet Density (FWD) t/m^3	1.96	2.02	2.01
Field Moisture Content %	19.6	20.2	23.7
Field Dry Density (FDD) t/m^3	1.64	1.68	1.62
Peak Converted Wet Density t/m^3	2.04	2.05	2.06
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	18.1	**
Adj. Field Moisture Content % (AS1289.5.4.1)	19.6	20.2	23.7
Moisture Ratio % (AS1289.5.4.1)	104.5	112.0	116.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-1.0	-2.0	-3.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**96.0**	**98.5**	**97.0**
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: **P231358-14**
Issue Number: 1
Date Issued: 19/09/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 13410
Date Sampled: 13/09/2023 10:00
Dates Tested: 13/09/2023 - 15/09/2023
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: Five Farms Stage 25 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	P23-13410C	P23-13410D	
Test Number	36	37	
Date Tested	14/09/2023	14/09/2023	
Time Tested	**	**	
Test Request #/Location	Lot 2529	Retest of 5	
Layer / Reduced Level	Layer 2	Layer 3	
Thickness of Layer (mm)	300	300	
Soil Description	Sandy silty CLAY	Sandy silty CLAY	
Test Depth (mm)	275	275	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0	4	
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	**	
Field Wet Density (FWD) t/m^3	2.08	2.12	
Field Moisture Content %	23.4	17.4	
Field Dry Density (FDD) t/m^3	1.68	1.82	
Peak Converted Wet Density t/m^3	2.03	**	
Adjusted Peak Converted Wet Density t/m^3	**	2.09	
Adj. Optimum Moisture Content % (AS1289.5.4.1)	20.6	16.0	
Adj. Field Moisture Content % (AS1289.5.4.1)	23.4	16.7	
Moisture Ratio % (AS1289.5.4.1)	114.0	**	
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	104.5	
Moisture Variation (Wv) %	-3.0	**	
Adjusted Moisture Variation %	**	-0.5	
Hilf Density Ratio (%)	**102.5**	**101.5**	
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: **P231358-14**
Issue Number: 1
Date Issued: 19/09/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 13410
Date Sampled: 13/09/2023 10:00
Dates Tested: 13/09/2023 - 15/09/2023
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: Five Farms Stage 25 Level One
Material: Sandy silty CLAY
Material Source: Onsite

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Project Manager
NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	P23-13410A	P23-13410B	
Test Number	34	35	
Date Tested	14/09/2023	14/09/2023	
Time Tested	**	**	
Test Request #/Location	Lot 2526	Lot 2527	
Layer / Reduced Level	Layer 2	Layer 2	
Thickness of Layer (mm)	300	300	
Soil Description	Sandy silty CLAY	Sandy silty CLAY	
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	2.07	2.03	
Field Moisture Content %	18.8	19.8	
Field Dry Density t/m^3	1.74	1.70	
Maximum Dry Density t/m^3	1.79	1.73	
Adjusted Maximum Dry Density t/m^3	**	**	
Optimum Moisture Content (OMC) %	15.0	16.5	
Adjusted Optimum Moisture Content (OMC) %	**	**	
Moisture Variation %	-4.0	-3.5	
Moisture Ratio %	126.5	119.5	
Density Ratio %	**97.5**	**98.0**	
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: **P231358-15**
Issue Number: 1
Date Issued: 27/09/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 13414
Date Sampled: 15/09/2023
Dates Tested: 15/09/2023 - 19/09/2023
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: Five Farms - Stage 25 - Level one
Material: CLAY
Material Source: Onsite

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1					
Sample Number	P23-13414A	P23-13414B	P23-13414C	P23-13414D	P23-13414E
Test Number	38	39	40	41	42
Date Tested	14/09/2023	14/09/2023	14/09/2023	14/09/2023	14/09/2023
Time Tested	**	**	**	**	**
Test Request #/Location	Lot 2526	Retest of 27	Retest of 29	Lot 2503	Lot 2504
Layer / Reduced Level	Layer 3	Layer 1	Layer 2	Layer 3	Layer 3
Thickness of Layer (mm)	300	300	300	300	300
Soil Description	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY
Test Depth (mm)	275	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	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	2.09	2.14	2.09	2.05	2.03
Field Moisture Content %	17.5	17.1	17.5	22.0	21.8
Field Dry Density (FDD) t/m^3	1.77	1.82	1.78	1.68	1.67
Peak Converted Wet Density t/m^3	2.10	2.09	2.13	2.03	2.02
Adjusted Peak Converted Wet Density t/m^3	**	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	16.5	16.7	15.6	20.9	21.4
Adj. Field Moisture Content % (AS1289.5.4.1)	17.5	17.1	17.5	22.0	21.8
Moisture Ratio % (AS1289.5.4.1)	106.5	102.5	112.0	105.0	102.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**	**
Moisture Variation (Wv) %	-1.0	-0.5	-2.0	-1.0	-0.5
Adjusted Moisture Variation %	**	**	**	**	**
Hilf Density Ratio (%)	**99.5**	**102.5**	**98.5**	**101.0**	**100.5**
Compaction Method	**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: **P231358-16**
Issue Number: 1
Date Issued: 04/10/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 13537
Date Sampled: 02/10/2023 8:40
Dates Tested: 02/10/2023 - 03/10/2023
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: Five Farms Stage 25 - Level One Fill
Material: CLAY
Material Source: Onsite

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NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	P23-13537A	P23-13537B	P23-13537C
Test Number	43	44	45
Date Tested	02/10/2023	02/10/2023	02/10/2023
Time Tested	15:10	15:18	15:25
Test Request #/Location	Lot No 2547	Lot No 2548	Reserve
Layer / Reduced Level	Layer 1	Layer 1	Layer 1
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	Clay
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	1.87	1.88	1.87
Field Moisture Content %	18.1	15.3	16.7
Field Dry Density (FDD) t/m^3	1.58	1.63	1.60
Peak Converted Wet Density t/m^3	1.96	1.96	1.96
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	21.3	18.6	19.9
Adj. Field Moisture Content % (AS1289.5.4.1)	18.1	15.3	16.7
Moisture Ratio % (AS1289.5.4.1)	84.5	82.5	84.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	3.0	3.0	3.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**95.5**	**96.0**	**95.0**
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: **P231358-17**
Issue Number: 1
Date Issued: 13/10/2023
Client: Fraser Property

Project Number: P231358
Project Name: Five Farms Future Stage 25 Level One
Project Location: Clyde
Work Request: 13593
Date Sampled: 11/10/2023
Dates Tested: 11/10/2023 - 12/10/2023
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: Five Farms Future Stage 25 Level One
Material: Silty Clay
Material Source: Onsite

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	P23-13593A	P23-13593B	P23-13593C
Test Number	46	47	48
Date Tested	11/10/2023	11/10/2023	11/10/2023
Time Tested	**	**	**
Test Request #/Location	Lot 2544	Lot 2545	Lot 2546
Layer / Reduced Level	Finally layer	Finally layer	Finally layer
Thickness of Layer (mm)	300	300	300
Soil Description	CLAY	CLAY	CLAY
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)	**	**	**
Field Wet Density (FWD) t/m^3	2.01	2.02	1.97
Field Moisture Content %	22.1	19.4	20.1
Field Dry Density (FDD) t/m^3	1.65	1.69	1.64
Peak Converted Wet Density t/m^3	2.02	2.08	2.03
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	20.3	17.5	18.4
Adj. Field Moisture Content % (AS1289.5.4.1)	22.1	19.4	20.1
Moisture Ratio % (AS1289.5.4.1)	109.0	111.0	109.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-2.0	-2.0	-1.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**100.0**	**97.5**	**97.0**
Compaction Method	**Standard**	**Standard**	**Standard**
Report Remarks	**	**	**

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC