

Banyan Place Estate Stage 6

GITA Inspection Verification Report

Prepared For: Lojac Civil Pty Ltd

Report Number P231433A V1

Version Release Date 8 Sep 2023

Report Released By C Caulfield

Title Project Manager

Signature



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1 Introduction

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical Inspection and Testing Authority (GITA) to provide Level 1 supervision and testing works on the earthworks component for Banyan Place Estate Stage 6. This work was conducted over the period of 05/05/2023 to 08/08/2023.

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 601 to 645, bounded by streets Tussock Way, Hyla Way, Forage Street, Mazzenti Way and Twiggy 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 Charlton Degg (Drawing Reference: 1470_6/R25) and provided by Lojac Civil 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 Lojac Civil 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

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 300mm 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 300mm 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 (P231433D1, 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 101 density tests (Hilf method in accordance with 1289 5.7.1) were undertaken with 2 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 6 at Banyan Place Estate. For completed fill areas of greater than 300mm, and for works completed between 05/05/2023 and 08/08/2023, 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 6 of Banyan Place Estate was observed to be constructed in compliance with the requirements of the Technical Specification.



Your Worksite is Our Laboratory.

Appendix 1: Test Location Plan

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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ACTION - BULK EARTHWORKS ONLY

PRE COUNCIL

March 2023



Our Head Office
47 National Ave
Pakenham, VIC 3860

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

Test Location Plan
not to scale

Client: Lojac Civil Pty Ltd

Project: Banyan Place Estate Stage 6

Reference: P231433 D1



Your Worksite is Our Laboratory.

Appendix 2: Compaction Test Register and Test Certificates

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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Compaction Test Register

Client: Lojac Civil Pty Ltd **Project No:** P231433
Project: Banyan Place Estate Stage 6 **Specification:** 95%

Date:	Test No:	Layer:	Retest of:	Density:	Pass/Fail:	Lot No:	Report No:
5/05/2023	1	Layer 1		100.5%	Pass	Lot 634	P231433-1
5/05/2023	2	Layer 1		100.0%	Pass	Lot 639	P231433-1
5/05/2023	3	Layer 1		97.0%	Pass	Lot 641	P231433-1
24/05/2023	4	Layer 3		100.0%	Pass	Lot 636	P231433-2
24/05/2023	5	Layer 3		91.5%	Fail	Lot 634	P231433-2
24/05/2023	6	Layer 3		102.5%	Pass	Lot 632	P231433-2
1/06/2023	7	Layer 1		97.5%	Pass	Lot 624	P231433-3
1/06/2023	8	Layer 1		97.5%	Pass	Lot 627	P231433-3
1/06/2023	9	Layer 6		102.5%	Pass	Lot 636	P231433-3
2/06/2023	10	Layer 2		99.5%	Pass	Lot 625	P231433-4
2/06/2023	11	Layer 7		95.5%	Pass	Lot 635	P231433-4
2/06/2023	12	Layer 2		97.0%	Pass	Lot 626	P231433-4
5/06/2023	13	Layer 7		96.5%	Pass	Lot 631	P231433-5
5/06/2023	14	Layer 7		96.0%	Pass	Lot 632	P231433-5
5/06/2023	15	Layer 7		96.5%	Pass	Lot 634	P231433-5
13/06/2023	16	Layer 3	Test #5	100.0%	Pass	Lot 634	P231433-6
13/06/2023	17	Layer 3		100.5%	Pass	Lot 620	P231433-6
13/06/2023	18	Layer 4		102.5%	Pass	Lot 622	P231433-6
13/06/2023	19	Layer 4		101.5%	Pass	Lot 623	P231433-6
14/06/2023	20	Layer 3		102.0%	Pass	Lot 616	P231433-7
14/06/2023	21	Layer 3		98.5%	Pass	Lot 617	P231433-7
14/06/2023	22	Layer 3		99.5%	Pass	Lot 618	P231433-7
15/06/2023	23	Layer 4		101.5%	Pass	Lot 617	P231433-8
15/06/2023	24	Layer 4		100.0%	Pass	Lot 616	P231433-8
15/06/2023	25	Layer 4		100.0%	Pass	Lot 615	P231433-8
28/06/2023	26	Layer 1		101.5%	Pass	Lot 637	P231433-9
28/06/2023	27	Layer 1		97.5%	Pass	Lot 637	P231433-9
28/06/2023	28	Layer 1		98.5%	Pass	Lot 644	P231433-9
28/06/2023	29	Layer 3		99.0%	Pass	Lot 637	P231433-10
28/06/2023	30	Layer 3		113.5%	Pass	Lot 638	P231433-10
28/06/2023	31	Layer 3		100.0%	Pass	Lot 643	P231433-10
3/07/2023	32	Layer 5		97.5%	Pass	Lot 613	P231433-11
3/07/2023	33	Layer 5		100.5%	Pass	Lot 612	P231433-11
3/07/2023	34	Layer 5		99.5%	Pass	Lot 611	P231433-11
4/07/2023	35	Layer 6		100.0%	Pass	Lot 613	P231433-12
4/07/2023	36	Layer 6		100.0%	Pass	Lot 612	P231433-12
4/07/2023	37	Layer 6		97.0%	Pass	Lot 611	P231433-12
6/07/2023	38	Layer 3		95.0%	Pass	Lot 631	P231433-13
6/07/2023	39	Layer 3		96.5%	Pass	Lot 632	P231433-13
6/07/2023	40	Layer 3		100.5%	Pass	Lot 633	P231433-13
7/07/2023	41	Layer 6		98.0%	Pass	Lot 640	P231433-14



Compaction Test Register

Client: Lojac Civil Pty Ltd **Project No:** P231433
Project: Banyan Place Estate Stage 6 **Specification:** 95%

Date:	Test No:	Layer:	Retest of:	Density:	Pass/Fail:	Lot No:	Report No:
7/07/2023	42	Layer 6		96.0%	Pass	Lot 630	P231433-14
7/07/2023	43	Layer 6		97.5%	Pass	Lot 633	P231433-14
10/07/2023	44	Layer 7		95.5%	Pass	Lot 613	P231433-15
10/07/2023	45	Layer 7		104.0%	Pass	Lot 633	P231433-15
10/07/2023	46	Layer 7		100.5%	Pass	Lot 630	P231433-15
11/07/2023	47	Layer 8		98.0%	Pass	Lot 615	P231433-16
11/07/2023	48	Layer 8		101.0%	Pass	Lot 614	P231433-16
11/07/2023	49	Layer 8		95.5%	Pass	Lot 613	P231433-16
12/07/2023	50	Layer 9		101.5%	Pass	Lot 616	P231433-17
12/07/2023	51	Layer 9		100.5%	Pass	Lot 614	P231433-17
12/07/2023	52	Layer 9		99.0%	Pass	Lot 611	P231433-17
14/07/2023	53	Layer 1		98.0%	Pass	Lot 610	P231433-18
14/07/2023	54	Layer 1		98.5%	Pass	Lot 609	P231433-18
14/07/2023	55	Layer 1		97.0%	Pass	Lot 608	P231433-18
17/07/2023	56	Layer 1		100.5%	Pass	Lot 638	P231433-19
17/07/2023	57	Layer 2		97.0%	Pass	Lot 609	P231433-19
17/07/2023	58	Layer 2		98.5%	Pass	Lot 607	P231433-19
18/07/2023	59	Layer 2		99.5%	Pass	Lot 637	P231433-20
18/07/2023	60	Layer 1		101.5%	Pass	Tussock way	P231433-20
18/07/2023	61	Layer 1		97.5%	Pass	Tussock way	P231433-20
19/07/2023	62	Layer 3		95.5%	Pass	Lot 637	P231433-21
19/07/2023	63	Layer 3		99.5%	Pass	Lot 643	P231433-21
19/07/2023	64	Layer 2		102.0%	Pass	Lot 604	P231433-21
20/07/2023	65	Layer 3		102.5%	Pass	Lot 610	P231433-22
20/07/2023	66	Layer 3		103.5%	Pass	Lot 609	P231433-22
20/07/2023	67	Layer 3		102.5%	Pass	Lot 608	P231433-22
21/07/2023	68	Layer 3		100.0%	Pass	Lot 640	P231433-23
21/07/2023	69	Layer 3		98.5%	Pass	Lot 641	P231433-23
21/07/2023	70	Layer 3		100.0%	Pass	Lot 642	P231433-23
21/07/2023	71	Layer 4		99.5%	Pass	Lot 638	P231433-24
21/07/2023	72	Layer 4		98.5%	Pass	Lot 644	P231433-24
21/07/2023	73	Layer 4		106.0%	Pass	Lot 642	P231433-24
25/07/2023	74	Layer 5		104.0%	Pass	Lot 637	P231433-25
25/07/2023	75	Layer 5		99.0%	Pass	Lot 643	P231433-25
25/07/2023	76	Layer 5		106.5%	Pass	Lot 642	P231433-25
26/07/2023	77	Layer 3		100.5%	Pass	Lot 601	P231433-26
26/07/2023	78	Layer 3		103.0%	Pass	Lot 603	P231433-26
26/07/2023	79	Layer 3		101.5%	Pass	Lot 606	P231433-26
27/07/2023	80	Layer 6		102.5%	Pass	Lot 601	P231433-27
27/07/2023	81	Layer 6		98.0%	Pass	Lot 603	P231433-27
27/07/2023	82	Layer 6		99.0%	Pass	Lot 605	P231433-27

Material Test Report

Report Number: P231433-1
Issue Number: 1
Date Issued: 10/05/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12359
Date Sampled: 05/05/2023
Dates Tested: 05/05/2023 - 08/05/2023
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: Banyan Place Stage 6 - Level One
Material: Silty Clay
Material Source: Imported



Pakenham Laboratory
 47 National Avenue Pakenham VIC 3810
 Phone: (03) 9769 5799
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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	P23-12359A	P23-12359B	P23-12359C
Test Number	1	2	3
Date Tested	05/05/2023	05/05/2023	05/05/2023
Time Tested	**	**	**
Test Request #/Location	Lot 634	Lot 639	Lot 641
Easting	361678	361676	361682
Northing	5783832	5783871	5783892
Layer / Reduced Level	Layer 1	Layer 1	Layer 1
Thickness of Layer (mm)	300mm	300mm	300mm
Soil Description	CLAY	CLAY	CLAY
Test Depth (mm)	275mm	275mm	275mm
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	2.12	2.10
Field Moisture Content %	14.4	13.7	14.8
Field Dry Density (FDD) t/m ³	1.88	1.87	1.83
Peak Converted Wet Density t/m ³	2.14	2.13	2.16
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	**	**
Adj. Field Moisture Content % (AS1289.5.4.1)	14.4	13.7	14.8
Moisture Ratio % (AS1289.5.4.1)	99.0	97.0	110.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	0.0	0.5	-1.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	100.5	100.0	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: P231433-2
Issue Number: 1
Date Issued: 08/06/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12480
Date Sampled: 24/05/2023
Dates Tested: 24/05/2023 - 06/06/2023
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: Banyan Place Stage 6 - Level One
Material: Clayey SAND
Material Source: Imported



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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	P23-12480A	P23-12480B	P23-12480C
Test Number	4	5	6
Date Tested	24/05/2023	24/05/2023	24/05/2023
Time Tested	**	**	**
Test Request #/Location	636	634	632
Easting	361696	361680	361681
Northing	5783916	5783896	5783879
Layer / Reduced Level	Layer 3	Layer 3	Layer 3
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	**	**
Field Wet Density (FWD) t/m ³	2.09	1.96	2.15
Field Moisture Content %	16.9	16.3	9.3
Field Dry Density (FDD) t/m ³	1.79	1.68	1.96
Peak Converted Wet Density t/m ³	2.09	2.14	2.10
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	16.2	13.2	**
Adj. Field Moisture Content % (AS1289.5.4.1)	16.9	16.3	9.3
Moisture Ratio % (AS1289.5.4.1)	104.5	123.5	82.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-0.5	-3.0	2.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	100.0	91.5	102.5
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: P231433-3
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 08/09/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12534
Date Sampled: 01/06/2023
Dates Tested: 01/06/2023 - 07/06/2023
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: Banyan Place Stage 5&6- Level One
Material: CLAY
Material Source: Imported



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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

	P23-12534A	P23-12534B	P23-12534C
Sample Number			
Test Number	7	8	9
Date Tested	01/06/2023	01/06/2023	01/06/2023
Time Tested	**	**	**
Test Request #/Location	Lot 624	Lot 627	Lot 636
Layer / Reduced Level	Layer 1	Layer 1	Layer 6
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	**
Field Wet Density (FWD) t/m ³	2.06	2.10	2.15
Field Moisture Content %	21.9	15.7	20.8
Field Dry Density (FDD) t/m ³	1.69	1.81	1.78
Peak Converted Wet Density t/m ³	2.11	2.15	2.10
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	18.4	14.5	17.3
Adj. Field Moisture Content % (AS1289.5.4.1)	21.9	15.7	20.8
Moisture Ratio % (AS1289.5.4.1)	119.0	108.0	120.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-3.5	-1.0	-3.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	97.5	97.5	102.5
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: P231433-4
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 08/09/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12546
Date Sampled: 02/06/2023
Dates Tested: 02/06/2023 - 08/06/2023
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: Banyan Place Stage 6
Material: CLAY
Material Source: Imported



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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	P23-12546A	P23-12546B	P23-12546C
Test Number	10	11	12
Date Tested	02/06/2023	02/06/2023	02/06/2023
Time Tested	**	**	**
Test Request #/Location	Lot 625	Lot 635	Lot 626
Layer / Reduced Level	Layer 2	Layer 7	Layer 2
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)	**	**	**
Field Wet Density (FWD) t/m ³	2.16	2.10	2.06
Field Moisture Content %	16.9	13.8	17.8
Field Dry Density (FDD) t/m ³	1.85	1.84	1.75
Peak Converted Wet Density t/m ³	2.17	2.19	2.13
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	15.5	13.0	16.2
Adj. Field Moisture Content % (AS1289.5.4.1)	16.9	13.8	17.8
Moisture Ratio % (AS1289.5.4.1)	108.5	106.5	110.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-1.5	-1.0	-1.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	99.5	95.5	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: P231433-5
Issue Number: 1
Date Issued: 08/06/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12558
Date Sampled: 05/06/2023
Dates Tested: 05/06/2023 - 07/06/2023
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: Banyan Place Stage 6
Material: CLAY
Material Source: Imported



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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

	P23-12558A	P23-12558B	P23-12558C
Sample Number	P23-12558A	P23-12558B	P23-12558C
Test Number	13	14	15
Date Tested	05/06/2023	05/06/2023	05/06/2023
Time Tested	**	**	**
Test Request #/Location	Lot 631	Lot 632	Lot 634
Easting	361673	361678	361670
Northing	5783874	5783896	5783907
Layer / Reduced Level	Layer 7	Layer 7	Layer 7
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	2.09	2.06	2.10
Field Moisture Content %	16.4	19.8	14.2
Field Dry Density (FDD) t/m ³	1.79	1.72	1.84
Peak Converted Wet Density t/m ³	2.17	2.14	2.17
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	14.7	17.5	12.8
Adj. Field Moisture Content % (AS1289.5.4.1)	16.4	19.8	14.2
Moisture Ratio % (AS1289.5.4.1)	111.5	113.0	110.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-1.5	-2.0	-1.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	96.5	96.0	96.5
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: P231433-6
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 08/09/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12597
Date Sampled: 13/06/2023
Dates Tested: 13/06/2023 - 14/06/2023
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: Banyan Place Stage 6 - Level One
Material: clay
Material Source: Imported



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 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

Sample Number	P23-12597A	P23-12597B	P23-12597C	P23-12597D
Test Number	16	17	18	19
Date Tested	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Time Tested	**	**	**	**
Test Request #/Location	Lot 634 Retest #5	Lot 620	Lot 622	Lot 623
Layer / Reduced Level	Layer 3	Layer 3	Layer 4	Layer 4
Thickness of Layer (mm)	300	300	300	300
Soil Description	CLAY	CLAY	CLAY	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	0
Field Wet Density (FWD) t/m ³	2.07	2.07	2.14	2.12
Field Moisture Content %	17.1	19.2	17.9	17.5
Field Dry Density (FDD) t/m ³	1.77	1.74	1.82	1.81
Peak Converted Wet Density t/m ³	2.06	2.06	2.09	2.10
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	17.0	19.2	17.8	17.0
Adj. Field Moisture Content % (AS1289.5.4.1)	17.1	19.2	17.9	17.5
Moisture Ratio % (AS1289.5.4.1)	100.5	100.0	101.0	103.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**
Moisture Variation (Wv) %	0.0	0.0	0.0	-0.5
Adjusted Moisture Variation %	**	**	**	**
Hilf Density Ratio (%)	100.0	100.5	102.5	101.5
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: P231433-7
Issue Number: 1
Date Issued: 19/06/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12610
Date Sampled: 14/06/2023
Dates Tested: 14/06/2023 - 16/06/2023
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: Banyan Place Stage 6 - Level One
Material: CLAY
Material Source: Imported



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NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	P23-12610A	P23-12610B	P23-12610C
Test Number	20	21	22
Date Tested	14/06/2023	14/06/2023	14/06/2023
Time Tested	**	**	**
Test Request #/Location	Lot 616	Lot 617	Lot 618
Easting	361610	5783875	361613
Northing	5783864	5783875	5783886
Layer / Reduced Level	Layer 3	Layer 3	Layer 3
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	2.13	2.02	2.17
Field Moisture Content %	17.2	16.5	15.1
Field Dry Density (FDD) t/m ³	1.82	1.73	1.89
Peak Converted Wet Density t/m ³	2.09	2.05	2.19
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	**	**
Adj. Field Moisture Content % (AS1289.5.4.1)	17.2	16.5	15.1
Moisture Ratio % (AS1289.5.4.1)	97.5	98.5	104.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	0.5	0.5	-0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	102.0	98.5	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: P231433-8
Issue Number: 1
Date Issued: 19/06/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12621
Date Sampled: 15/06/2023
Dates Tested: 15/06/2023 - 16/06/2023
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: Banyan Place Stage 6 - Level One
Material: CLAY
Material Source: Imported



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 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

	P23-12621A	P23-12621B	P23-12621C
Sample Number	P23-12621A	P23-12621B	P23-12621C
Test Number	23	24	25
Date Tested	15/06/2023	15/06/2023	15/06/2023
Time Tested	**	**	**
Test Request #/Location	Lot 617	Lot 616	Lot 615
Layer / Reduced Level	Layer 4	Layer 4	Layer 4
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 (%)	3	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**
Field Wet Density (FWD) t/m ³	2.18	2.14	2.09
Field Moisture Content %	15.5	16.1	17.1
Field Dry Density (FDD) t/m ³	1.90	1.84	1.79
Peak Converted Wet Density t/m ³	**	2.15	2.09
Adjusted Peak Converted Wet Density t/m ³	2.15	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	15.1	**	**
Adj. Field Moisture Content % (AS1289.5.4.1)	15.0	16.1	17.1
Moisture Ratio % (AS1289.5.4.1)	**	96.5	98.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	100.0	**	**
Moisture Variation (Wv) %	**	0.5	0.0
Adjusted Moisture Variation %	0.0	**	**
Hilf Density Ratio (%)	101.5	100.0	100.0
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: P231433-9
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 08/09/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12691
Date Sampled: 27/06/2023 15:20
Dates Tested: 27/06/2023 - 28/06/2023
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: Banyan Place Estate Stage 6 - Level One
Material: CLAY
Material Source: Imported



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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

	P23-12691A	P23-12691B	P23-12691C
Sample Number	P23-12691A	P23-12691B	P23-12691C
Test Number	26	27	28
Date Tested	28/06/2023	28/06/2023	28/06/2023
Time Tested	**	**	**
Test Request #/Location	Lot 637	Lot 637	Lot 644
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 (%)	5	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**
Field Wet Density (FWD) t/m ³	2.16	2.03	2.09
Field Moisture Content %	14.9	18.0	14.9
Field Dry Density (FDD) t/m ³	1.89	1.72	1.82
Peak Converted Wet Density t/m ³	**	2.09	2.12
Adjusted Peak Converted Wet Density t/m ³	2.13	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	14.5	18.4	15.1
Adj. Field Moisture Content % (AS1289.5.4.1)	14.1	18.0	14.9
Moisture Ratio % (AS1289.5.4.1)	**	97.5	99.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	97.0	**	**
Moisture Variation (Wv) %	**	0.5	0.0
Adjusted Moisture Variation %	0.5	**	**
Hilf Density Ratio (%)	101.5	97.5	98.5
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: P231433-10
Issue Number: 1
Date Issued: 03/07/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12702
Date Sampled: 28/06/2023
Dates Tested: 28/06/2023 - 29/06/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Location: Banyan Place Estate Stage 6 - Level One
Material: CLAY
Material Source: Imported



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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	P23-12702A	P23-12702B	P23-12702C
Test Number	29	30	31
Date Tested	28/06/2023	28/06/2023	28/06/2023
Time Tested	**	**	**
Test Request #/Location	Lot 637	Lot 638	Lot 643
Layer / Reduced Level	Layer 3	Layer 3	Layer 3
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
Field Wet Density (FWD) t/m ³	2.03	2.09	2.06
Field Moisture Content %	35.6	40.8	21.5
Field Dry Density (FDD) t/m ³	1.50	1.49	1.69
Peak Converted Wet Density t/m ³	2.05	1.84	2.06
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	36.6	20.1
Adj. Field Moisture Content % (AS1289.5.4.1)	35.6	40.8	21.5
Moisture Ratio % (AS1289.5.4.1)	108.0	111.5	107.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-2.5	-4.0	-1.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	99.0	113.5	100.0
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: P231433-11
Issue Number: 1
Date Issued: 10/07/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12725
Date Sampled: 03/07/2023
Dates Tested: 03/07/2023 - 04/07/2023
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: Banyan Place Estate Stage 6 - Level One
Material: CLAY
Material Source: Imported



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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

	P23-12725B	P23-12725C	P23-12725D
Sample Number	P23-12725B	P23-12725C	P23-12725D
Test Number	32	33	34
Date Tested	03/07/2023	03/07/2023	03/07/2023
Time Tested	**	**	**
Test Request #/Location	Lot 613	Lot 612	Lot 611
Layer / Reduced Level	Layer 5	Layer 5	Layer 5
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	2.08	2.11	2.10
Field Moisture Content %	17.0	21.6	21.3
Field Dry Density (FDD) t/m ³	1.78	1.73	1.73
Peak Converted Wet Density t/m ³	2.14	2.10	2.10
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	**	**
Adj. Field Moisture Content % (AS1289.5.4.1)	17.0	21.6	21.3
Moisture Ratio % (AS1289.5.4.1)	103.5	118.0	117.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-0.5	-3.5	-3.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	97.5	100.5	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: P231433-12
Issue Number: 1
Date Issued: 10/07/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12734
Date Sampled: 04/07/2023
Dates Tested: 04/07/2023 - 07/07/2023
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: Banyan Place Estate Stage 6 - Level One
Material: CLAY
Material Source: Imported



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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	P23-12734A	P23-12734B	P23-12734C
Test Number	35	36	37
Date Tested	04/07/2023	04/07/2023	04/07/2023
Time Tested	**	**	**
Test Request #/Location	Lot 613	Lot 612	Lot 611
Layer / Reduced Level	Layer 6	Layer 6	Layer 6
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	2	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	**	**
Field Wet Density (FWD) t/m ³	2.11	2.15	2.09
Field Moisture Content %	14.9	15.9	14.5
Field Dry Density (FDD) t/m ³	1.84	1.86	1.82
Peak Converted Wet Density t/m ³	2.11	**	2.15
Adjusted Peak Converted Wet Density t/m ³	**	2.15	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	14.3	14.8	**
Adj. Field Moisture Content % (AS1289.5.4.1)	14.9	15.5	14.5
Moisture Ratio % (AS1289.5.4.1)	104.5	**	108.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	105.0	**
Moisture Variation (Wv) %	-0.5	**	-1.0
Adjusted Moisture Variation %	**	-0.5	**
Hilf Density Ratio (%)	100.0	100.0	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: P231433-13
Issue Number: 1
Date Issued: 10/07/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12752
Date Sampled: 07/07/2023
Dates Tested: 07/07/2023 - 07/07/2023
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: Banyan Place Estate Stage 6 - Level One
Material: CLAY
Material Source: Imported



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 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	P23-12752A	P23-12752B	P23-12752C
Test Number	38	39	40
Date Tested	06/07/2023	06/07/2023	06/07/2023
Time Tested	**	**	**
Test Request #/Location	Lot 631	Lot 632	Lot 633
Layer / Reduced Level	Layer 3	Layer 3	Layer 3
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	**
Field Wet Density (FWD) t/m ³	2.01	2.04	2.09
Field Moisture Content %	21.1	19.4	18.9
Field Dry Density (FDD) t/m ³	1.66	1.71	1.76
Peak Converted Wet Density t/m ³	2.12	2.12	2.08
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	17.1	**
Adj. Field Moisture Content % (AS1289.5.4.1)	21.1	19.4	18.9
Moisture Ratio % (AS1289.5.4.1)	120.5	113.5	109.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-3.5	-2.0	-1.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	95.0	96.5	100.5
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: P231433-14
Issue Number: 1
Date Issued: 14/07/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12770
Date Sampled: 07/07/2023
Dates Tested: 07/07/2023 - 11/07/2023
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: Banyan Place Estate Stage 6 - Level One
Material: CLAY
Material Source: Imported



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 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	P23-12770A	P23-12770B	P23-12770C
Test Number	41	42	43
Date Tested	07/07/2023	07/07/2023	07/07/2023
Time Tested	**	**	**
Test Request #/Location	Lot 640	Lot 630	Lot 633
Layer / Reduced Level	Layer 6	Layer 6	Layer 6
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	2
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**
Field Wet Density (FWD) t/m ³	2.08	2.04	2.01
Field Moisture Content %	14.9	13.2	13.2
Field Dry Density (FDD) t/m ³	1.81	1.80	1.78
Peak Converted Wet Density t/m ³	2.13	2.12	**
Adjusted Peak Converted Wet Density t/m ³	**	**	2.06
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	**	13.1
Adj. Field Moisture Content % (AS1289.5.4.1)	14.9	13.2	12.9
Moisture Ratio % (AS1289.5.4.1)	101.0	99.0	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	98.0
Moisture Variation (Wv) %	0.0	0.0	**
Adjusted Moisture Variation %	**	**	0.0
Hilf Density Ratio (%)	98.0	96.0	97.5
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: P231433-15
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 08/09/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Contact: Rob Nassar
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12783
Date Sampled: 10/07/2023
Dates Tested: 10/07/2023 - 14/07/2023
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: Banyan Place Estate Stage 6 - Level One
Material: Sandy CLAY
Material Source: Imported



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	P23-12783A	P23-12783B	P23-12783C
Test Number	44	45	46
Date Tested	10/07/2023	10/07/2023	10/07/2023
Time Tested	**	**	**
Test Request #/Location	Lot 613	Lot 633	Lot 630
Layer / Reduced Level	Layer 7	Layer 7	Layer 7
Thickness of Layer (mm)	300	300	300
Soil Description	Sandy CLAY	Sandy CLAY	Sandy 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)	0	**	0
Field Wet Density (FWD) t/m ³	2.05	2.20	2.12
Field Moisture Content %	18.7	17.8	17.3
Field Dry Density (FDD) t/m ³	1.73	1.87	1.80
Peak Converted Wet Density t/m ³	2.14	2.12	2.10
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	15.6	**	15.7
Adj. Field Moisture Content % (AS1289.5.4.1)	18.7	**	17.3
Moisture Ratio % (AS1289.5.4.1)	119.5	108.0	111.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-3.0	-1.5	-1.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	95.5	104.0	100.5
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: P231433-16
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Test Numbers Added
Date Issued: 04/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12794
Date Sampled: 11/07/2023
Dates Tested: 11/07/2023 - 20/07/2023
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: Banyan Place Estate Stage 6 - Level One
Material: Silty Clay
Material Source: Imported



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NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

	P23-12794A	P23-12794B	P23-12794C
Sample Number	P23-12794A	P23-12794B	P23-12794C
Test Number	47	48	49
Date Tested	11/07/2023	11/07/2023	11/07/2023
Time Tested	**	**	**
Test Request #/Location	86 Lot 615	87 Lot 614	88 Lot 613
Layer / Reduced Level	Layer 8	Layer 8	Layer 8
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	2.11	2.15	2.05
Field Moisture Content %	16.4	17.3	17.1
Field Dry Density (FDD) t/m ³	1.82	1.83	1.75
Peak Converted Wet Density t/m ³	2.16	2.13	2.15
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	14.2	15.5	14.3
Adj. Field Moisture Content % (AS1289.5.4.1)	16.4	17.3	17.1
Moisture Ratio % (AS1289.5.4.1)	114.5	112.0	119.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-2.0	-2.0	-3.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	98.0	101.0	95.5
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: P231433-17
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Test Numbers Added
Date Issued: 04/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12802
Date Sampled: 12/07/2023
Dates Tested: 12/07/2023 - 17/07/2023
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: Banyan Place Estate Stage 6 - Level One
Material: CLAY
Material Source: Imported



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

Sample Number	P23-12802A	P23-12802B	P23-12802C
Test Number	50	51	52
Date Tested	12/07/2023	12/07/2023	12/07/2023
Time Tested	**	**	**
Test Request #/Location	Lot 616	Lot 614	Lot 611
Layer / Reduced Level	Layer 9	Layer 9	Layer 9
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	2.18	2.15	2.12
Field Moisture Content %	16.6	16.6	17.2
Field Dry Density (FDD) t/m ³	1.87	1.84	1.80
Peak Converted Wet Density t/m ³	2.14	2.13	2.13
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	14.6	15.3	15.2
Adj. Field Moisture Content % (AS1289.5.4.1)	16.6	16.6	17.2
Moisture Ratio % (AS1289.5.4.1)	113.5	108.5	113.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-2.0	-1.5	-2.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	101.5	100.5	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: P231433-18
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Test Numbers Added
Date Issued: 04/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12817
Date Sampled: 14/07/2023
Dates Tested: 14/07/2023 - 21/07/2023
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: Banyan Place Estate Stage 6 - Level One
Material: CLAY
Material Source: Imported



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

	P23-12817A	P23-12817B	P23-12817C
Sample Number			
Test Number	53	54	55
Date Tested	14/07/2023	14/07/2023	14/07/2023
Time Tested	08:50	08:55	09:00
Test Request #/Location	1 Lot 610	2 Lot 609	3 Lot 608
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
Field Wet Density (FWD) t/m ³	2.12	2.15	2.10
Field Moisture Content %	16.0	14.1	16.0
Field Dry Density (FDD) t/m ³	1.83	1.89	1.81
Peak Converted Wet Density t/m ³	2.17	2.18	2.16
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	-2.5	-2.5	-1.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	98.0	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: P231433-19
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Test Numbers Added
Date Issued: 04/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12834
Date Sampled: 17/07/2023
Dates Tested: 17/07/2023 - 20/07/2023
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: Banyan Place Estate Stage 6 - Level One
Material: Silty Clay
Material Source: Imported



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

	P23-12834A	P23-12834B	P23-12834C
Sample Number	P23-12834A	P23-12834B	P23-12834C
Test Number	56	57	58
Date Tested	17/07/2023	17/07/2023	17/07/2023
Time Tested	**	**	**
Test Request #/Location	Lot 638	Lot 609	Lot 607
Layer / Reduced Level	Layer 1	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	2.17	2.10	2.16
Field Moisture Content %	15.4	14.6	14.6
Field Dry Density (FDD) t/m ³	1.88	1.83	1.89
Peak Converted Wet Density t/m ³	2.16	2.17	2.19
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	13.8	13.3	12.7
Adj. Field Moisture Content % (AS1289.5.4.1)	15.4	14.6	14.6
Moisture Ratio % (AS1289.5.4.1)	111.5	110.5	114.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-1.5	-1.5	-2.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	100.5	97.0	98.5
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: P231433-20
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 08/09/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12855
Date Sampled: 18/07/2023
Dates Tested: 18/07/2023 - 31/07/2023
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: Banyan Place Estate Stage 6 - Level One
Material: CLAY
Material Source: Imported



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

	P23-12855A	P23-12855B	P23-12855C
Sample Number	P23-12855A	P23-12855B	P23-12855C
Test Number	59	60	61
Date Tested	18/07/2023	18/07/2023	18/07/2023
Time Tested	**	**	**
Test Request #/Location	Lot 637	Tussock way	Tussock way
Layer / Reduced Level	Layer 2	Layer 1	Layer 1
Thickness of Layer (mm)	300	300	300
Soil Description	Sandy CLAY	Sandy CLAY	Sandy 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	2.11	2.14	2.09
Field Moisture Content %	16.8	17.0	16.4
Field Dry Density (FDD) t/m ³	1.81	1.83	1.79
Peak Converted Wet Density t/m ³	2.13	2.11	2.14
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	16.6	15.4
Adj. Field Moisture Content % (AS1289.5.4.1)	16.8	17.0	16.4
Moisture Ratio % (AS1289.5.4.1)	122.0	102.5	106.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-3.0	-0.5	-1.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	99.5	101.5	97.5
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: P231433-21
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Test Numbers Added
Date Issued: 04/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12875
Date Sampled: 18/07/2023
Dates Tested: 18/07/2023 - 01/08/2023
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: Banyan Place Estate Stage 6
Material: Silty Clay
Material Source: Imported



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Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

Sample Number	P23-12875B	P23-12875C	
Test Number	63	64	
Date Tested	19/07/2023	19/07/2023	
Time Tested	**	**	
Test Request #/Location	2 Lot 643	3 Tussock way	
Layer / Reduced Level	Layer 3	Layer 2	
Thickness of Layer (mm)	300	300	
Soil Description	CLAY	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	2.15	2.18	
Field Moisture Content %	16.2	16.1	
Field Dry Density (FDD) t/m ³	1.85	1.87	
Peak Converted Wet Density t/m ³	2.16	2.14	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Adj. Optimum Moisture Content % (AS1289.5.4.1)	15.0	15.2	
Adj. Field Moisture Content % (AS1289.5.4.1)	16.2	16.1	
Moisture Ratio % (AS1289.5.4.1)	107.5	106.0	
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	
Moisture Variation (Wv) %	-1.0	-1.0	
Adjusted Moisture Variation %	**	**	
Hilf Density Ratio (%)	99.5	102.0	
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: P231433-21
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Test Numbers Added
Date Issued: 04/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12875
Date Sampled: 18/07/2023
Dates Tested: 18/07/2023 - 01/08/2023
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: Banyan Place Estate Stage 6
Material: Silty Clay
Material Source: Imported



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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	P23-12875A		
Test Number	62		
Date Tested	19/07/2023		
Time Tested	**		
Test Request #/Location	1 Lot 637		
Layer / Reduced Level	Layer 3		
Thickness of Layer (mm)	300		
Soil Description	CLAY		
Test Depth (mm)	275		
Fraction Tested (mm)	19.0		
Oversize (wet basis) %	**		
Oversize (dry basis) %	**		
Curing Hours	**		
Method used to Determine Plasticity	**		
Field Wet Density t/m ³	2.05		
Field Moisture Content %	17.6		
Field Dry Density t/m ³	1.75		
Maximum Dry Density t/m ³	1.83		
Adjusted Maximum Dry Density t/m ³	**		
Optimum Moisture Content (OMC) %	13.0		
Adjusted Optimum Moisture Content (OMC) %	**		
Moisture Variation %	-4.5		
Moisture Ratio %	136.5		
Density Ratio %	95.5		
Compaction Method	Standard		

Moisture Variation Note:

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

Material Test Report

Report Number: P231433-22
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 07/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12890
Date Sampled: 20/07/2023
Dates Tested: 20/07/2023 - 01/08/2023
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: Banyan Place Estate Stage 6 - Level One
Material: CLAY
Material Source: Imported



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

	P23-12890A	P23-12890B	P23-12890C
Sample Number	P23-12890A	P23-12890B	P23-12890C
Test Number	65	66	67
Date Tested	20/07/2023	20/07/2023	20/07/2023
Time Tested	**	**	**
Test Request #/Location	1 Lot 610	2 Lot 609	3 Lot 608
Layer / Reduced Level	Layer 3	Layer 3	Layer 3
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	2.08	2.10	2.08
Field Moisture Content %	18.5	26.8	21.9
Field Dry Density (FDD) t/m ³	1.76	1.65	1.71
Peak Converted Wet Density t/m ³	2.03	2.03	2.03
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	18.1	27.2	21.6
Adj. Field Moisture Content % (AS1289.5.4.1)	18.5	26.8	21.9
Moisture Ratio % (AS1289.5.4.1)	102.0	99.0	101.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-0.5	0.5	-0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	102.5	103.5	102.5
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: P231433-23
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 07/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12900
Date Sampled: 21/07/2023
Dates Tested: 21/07/2023 - 01/08/2023
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: Banyan Place Estate Stage 6
Material: CLAY
Material Source: Imported



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NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

	P23-12900A	P23-12900B	P23-12900C
Sample Number	P23-12900A	P23-12900B	P23-12900C
Test Number	68	69	70
Date Tested	21/07/2023	21/07/2023	21/07/2023
Time Tested	**	**	**
Test Request #/Location	68 Lot 640	69 Lot 641	70 Lot 642
Layer / Reduced Level	Layer 3	Layer 3	Layer 3
Thickness of Layer (mm)	300	300	300
Soil Description	Sandy CLAY	Sandy CLAY	CLAY
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**
Field Wet Density (FWD) t/m ³	2.08	2.05	2.04
Field Moisture Content %	13.6	18.0	22.1
Field Dry Density (FDD) t/m ³	1.83	1.74	1.67
Peak Converted Wet Density t/m ³	2.07	2.09	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)	**	**	**
Moisture Ratio % (AS1289.5.4.1)	100.0	115.5	111.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	0.0	-2.5	-2.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	100.0	98.5	100.0
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: P231433-24
Issue Number: 1
Date Issued: 07/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12911
Date Sampled: 21/07/2023
Dates Tested: 21/07/2023 - 03/08/2023
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: Banyan Place Estate Stage 6
Material: Silty Clay
Material Source: Imported



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NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

	P23-12911A	P23-12911B	P23-12911C
Sample Number	P23-12911A	P23-12911B	P23-12911C
Test Number	71	72	73
Date Tested	21/07/2023	21/07/2023	21/07/2023
Time Tested	**	**	**
Test Request #/Location	Lot 638	Lot 644	Lot 642
Layer / Reduced Level	Layer 4	Layer 4	Layer 4
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	2
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**
Field Wet Density (FWD) t/m ³	2.06	2.07	2.13
Field Moisture Content %	20.9	17.4	23.0
Field Dry Density (FDD) t/m ³	1.70	1.76	1.74
Peak Converted Wet Density t/m ³	2.07	2.10	**
Adjusted Peak Converted Wet Density t/m ³	**	**	2.01
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	**	21.0
Adj. Field Moisture Content % (AS1289.5.4.1)	20.9	17.4	22.5
Moisture Ratio % (AS1289.5.4.1)	119.5	113.0	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	107.0
Moisture Variation (Wv) %	-3.5	-2.0	**
Adjusted Moisture Variation %	**	**	-1.5
Hilf Density Ratio (%)	99.5	98.5	106.0
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: P231433-25
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 07/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12942
Date Sampled: 25/07/2023
Dates Tested: 25/07/2023 - 31/07/2023
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: Banyan Place Estate Stage 6 - Level One
Material: CLAY, Sandy CLAY
Material Source: Imported



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NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

	P23-12942A	P23-12942B	P23-12942C
Sample Number	P23-12942A	P23-12942B	P23-12942C
Test Number	74	75	76
Date Tested	25/07/2023	25/07/2023	25/07/2023
Time Tested	**	**	**
Test Request #/Location	74 Lot 637	75 Lot 643	76 Lot 642
Layer / Reduced Level	Layer 5	Layer 5	Layer 5
Thickness of Layer (mm)	300	300	300
Soil Description	CLAY	Sandy 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
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	0
Field Wet Density (FWD) t/m ³	2.09	2.12	2.14
Field Moisture Content %	19.0	16.0	22.5
Field Dry Density (FDD) t/m ³	1.75	1.83	1.74
Peak Converted Wet Density t/m ³	2.01	2.14	2.00
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	13.8	21.1
Adj. Field Moisture Content % (AS1289.5.4.1)	**	16.0	22.5
Moisture Ratio % (AS1289.5.4.1)	103.0	116.0	106.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-0.5	-2.0	-1.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	104.0	99.0	106.5
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: P231433-26
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 07/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12956
Date Sampled: 26/07/2023
Dates Tested: 26/07/2023 - 01/08/2023
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: Banyan Place Estate Stage 6 - Level One
Material: CLAY
Material Source: Imported



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 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

	P23-12956A	P23-12956B	P23-12956C
Sample Number	P23-12956A	P23-12956B	P23-12956C
Test Number	77	78	79
Date Tested	26/07/2023	26/07/2023	26/07/2023
Time Tested	**	**	**
Test Request #/Location	77 Lot 601	78 Lot 603	79 Lot 606
Layer / Reduced Level	Layer 3	Layer 3	Layer 3
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	3	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	**	0
Field Wet Density (FWD) t/m ³	2.08	2.13	2.06
Field Moisture Content %	16.5	18.3	20.2
Field Dry Density (FDD) t/m ³	1.78	1.81	1.71
Peak Converted Wet Density t/m ³	2.06	**	2.03
Adjusted Peak Converted Wet Density t/m ³	**	2.07	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	14.9	17.0	18.2
Adj. Field Moisture Content % (AS1289.5.4.1)	16.5	17.7	20.2
Moisture Ratio % (AS1289.5.4.1)	110.0	**	110.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	104.5	**
Moisture Variation (Wv) %	-1.5	**	-2.0
Adjusted Moisture Variation %	**	-0.5	**
Hilf Density Ratio (%)	100.5	103.0	101.5
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: P231433-27
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 07/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12966
Date Sampled: 27/07/2023
Dates Tested: 27/07/2023 - 31/07/2023
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: Banyan Place Estate- Stage 6
Material: CLAY
Material Source: Imported



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NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

	P23-12966B	P23-12966C	
Sample Number	P23-12966B	P23-12966C	
Test Number	81	82	
Date Tested	27/07/2023	27/07/2023	
Time Tested	**	**	
Test Request #/Location	LOT 603	LOT 605	
Layer / Reduced Level	Layer 6	Layer 6	
Thickness of Layer (mm)	300	300	
Soil Description	CLAY	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	2.02	2.06	
Field Moisture Content %	18.7	15.2	
Field Dry Density (FDD) t/m ³	1.70	1.78	
Peak Converted Wet Density t/m ³	2.06	2.07	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	15.7	
Adj. Field Moisture Content % (AS1289.5.4.1)	18.7	15.2	
Moisture Ratio % (AS1289.5.4.1)	97.5	97.0	
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	
Moisture Variation (Wv) %	0.5	0.5	
Adjusted Moisture Variation %	**	**	
Hilf Density Ratio (%)	98.0	99.0	
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: P231433-27
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 07/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12966
Date Sampled: 27/07/2023
Dates Tested: 27/07/2023 - 31/07/2023
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: Banyan Place Estate- Stage 6
Material: CLAY
Material Source: Imported



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Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1

Sample Number	P23-12966A		
Test Number	80		
Date Tested	27/07/2023		
Time Tested	**		
Test Request #/Location	LOT 601		
Layer / Reduced Level	Layer 6		
Thickness of Layer (mm)	300		
Soil Description	CLAY		
Test Depth (mm)	275		
Fraction Tested (mm)	19.0		
Oversize (wet basis) %	0		
Oversize (dry basis) %	0		
Curing Hours	**		
Method used to Determine Plasticity	Visual Assessment		
Field Wet Density t/m ³	2.09		
Field Moisture Content %	23.5		
Field Dry Density t/m ³	1.69		
Maximum Dry Density t/m ³	1.65		
Adjusted Maximum Dry Density t/m ³	**		
Optimum Moisture Content (OMC) %	21.5		
Adjusted Optimum Moisture Content (OMC) %	**		
Moisture Variation %	-2.0		
Moisture Ratio %	110.5		
Density Ratio %	102.5		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P231433-28
Issue Number: 1
Date Issued: 07/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12996
Date Sampled: 01/08/2023
Dates Tested: 01/08/2023 - 04/08/2023
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: Banyan Place Estate-Stage 6
Material: CLAY, Sandy CLAY
Material Source: Imported



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

Sample Number	P23-12996C		
Test Number	85		
Date Tested	01/08/2023		
Time Tested	**		
Test Request #/Location	Lot 602		
Layer / Reduced Level	Layer 7		
Thickness of Layer (mm)	300		
Soil Description	Sandy 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	2.10		
Field Moisture Content %	16.9		
Field Dry Density (FDD) t/m ³	1.79		
Peak Converted Wet Density t/m ³	2.03		
Adjusted Peak Converted Wet Density t/m ³	**		
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**		
Adj. Field Moisture Content % (AS1289.5.4.1)	16.9		
Moisture Ratio % (AS1289.5.4.1)	95.5		
Adjusted Moisture Ratio % (AS1289.5.4.1)	**		
Moisture Variation (Wv) %	0.5		
Adjusted Moisture Variation %	**		
Hilf Density Ratio (%)	103.0		
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: P231433-28
Issue Number: 1
Date Issued: 07/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 12996
Date Sampled: 01/08/2023
Dates Tested: 01/08/2023 - 03/08/2023
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: Banyan Place Estate-Stage 6
Material: CLAY, Sandy CLAY
Material Source: Imported



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NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1

	P23-12996A	P23-12996B	
Sample Number	P23-12996A	P23-12996B	
Test Number	83	84	
Date Tested	01/08/2023	01/08/2023	
Time Tested	**	**	
Test Request #/Location	Lot 606	Lot 604	
Layer / Reduced Level	Layer 7	Layer 7	
Thickness of Layer (mm)	300	300	
Soil Description	CLAY	CLAY	
Test Depth (mm)	275	275	
Fraction Tested (mm)	19.0	19.0	
Oversize (wet basis) %	**	0	
Oversize (dry basis) %	**	0	
Curing Hours	**	**	
Method used to Determine Plasticity	Visual Assessment	Visual Assessment	
Field Wet Density t/m ³	2.03	2.08	
Field Moisture Content %	21.9	18.4	
Field Dry Density t/m ³	1.66	1.76	
Maximum Dry Density t/m ³	1.70	1.75	
Adjusted Maximum Dry Density t/m ³	**	**	
Optimum Moisture Content (OMC) %	18.0	14.0	
Adjusted Optimum Moisture Content (OMC) %	**	**	
Moisture Variation %	-3.5	-4.5	
Moisture Ratio %	120.5	132.0	
Density Ratio %	98.0	100.5	
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: P231433-29
Issue Number: 1
Date Issued: 07/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 13016
Date Sampled: 01/08/2023
Dates Tested: 01/08/2023 - 03/08/2023
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: Banyan Place Estate Stage 6 Level One
Material: Sandy CLAY
Material Source: Imported



Pakenham Laboratory
 47 National Avenue Pakenham VIC 3810
 Phone: (03) 9769 5799
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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	P23-13016A	P23-13016B	P23-13016C
Test Number	86	87	88
Date Tested	01/08/2023	01/08/2023	01/08/2023
Time Tested	**	**	**
Test Request #/Location	Lot 605	Lot 603	Lot 601
Layer / Reduced Level	Layer 8	Layer 8	Layer 8
Thickness of Layer (mm)	300	300	300
Soil Description	Sandy CLAY	Sandy CLAY	Sandy 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	2.07	2.05	2.12
Field Moisture Content %	16.7	14.9	22.6
Field Dry Density (FDD) t/m ³	1.77	1.79	1.73
Peak Converted Wet Density t/m ³	2.02	2.05	2.03
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	18.3	17.0	21.5
Adj. Field Moisture Content % (AS1289.5.4.1)	16.7	14.9	22.6
Moisture Ratio % (AS1289.5.4.1)	91.0	88.0	105.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	1.5	2.0	-1.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	102.0	100.0	104.5
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: P231433-30
Issue Number: 1
Date Issued: 08/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 13032
Date Sampled: 02/08/2023
Dates Tested: 02/08/2023 - 07/08/2023
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: Banyan Place Estate Stage 6 - Level One
Material: CLAY
Material Source: Imported



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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	P23-13032A	P23-13032B	P23-13032C
Test Number	89	90	91
Date Tested	02/08/2023	02/08/2023	02/08/2023
Time Tested	**	**	**
Test Request #/Location	Lot 605	Lot 603	Lot 601
Layer / Reduced Level	Layer 8	Layer 8	Layer 8
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	2.04	2.05	2.06
Field Moisture Content %	24.8	20.4	21.0
Field Dry Density (FDD) t/m ³	1.64	1.70	1.70
Peak Converted Wet Density t/m ³	2.03	2.07	2.05
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	21.4	**	**
Adj. Field Moisture Content % (AS1289.5.4.1)	24.8	20.4	21.0
Moisture Ratio % (AS1289.5.4.1)	116.0	118.0	110.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-3.5	-3.0	-2.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	100.5	99.0	100.5
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: P231433-31
Issue Number: 1
Date Issued: 10/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 13045
Date Sampled: 03/08/2023
Dates Tested: 03/08/2023 - 08/08/2023
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: Banyan Place Estate Stage 6 - Level One
Material: CLAY
Material Source: Imported



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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	P23-13045A	P23-13045B	P23-13045C
Test Number	92	93	94
Date Tested	03/08/2023	03/08/2023	03/08/2023
Time Tested	**	**	**
Test Request #/Location	92 Lot 607	93 Lot 643	94 Lot 645
Layer / Reduced Level	Layer 6	Layer 6	Layer 6
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	**	**
Field Wet Density (FWD) t/m ³	1.99	2.02	2.08
Field Moisture Content %	16.2	16.5	17.5
Field Dry Density (FDD) t/m ³	1.72	1.74	1.77
Peak Converted Wet Density t/m ³	2.03	2.08	2.06
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	15.9	**	**
Adj. Field Moisture Content % (AS1289.5.4.1)	16.2	16.5	17.5
Moisture Ratio % (AS1289.5.4.1)	102.0	104.0	103.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-0.5	-0.5	-0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	98.0	97.5	101.5
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: P231433-32
Issue Number: 1
Date Issued: 10/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 13056
Date Sampled: 04/08/2023
Dates Tested: 04/08/2023 - 07/08/2023
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: Banyan Place Estate Stage 6 - Level One
Material: CLAY
Material Source: Imported



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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	P23-13056A	P23-13056B	P23-13056C
Test Number	95	96	97
Date Tested	04/08/2023	04/08/2023	04/08/2023
Time Tested	**	**	**
Test Request #/Location	95 Lot 639	96 Lot 644	97 Lot 642
Layer / Reduced Level	Layer 6	Layer 7	Layer 7
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	2.05	2.06	1.97
Field Moisture Content %	17.5	15.1	17.1
Field Dry Density (FDD) t/m ³	1.75	1.79	1.68
Peak Converted Wet Density t/m ³	2.09	2.12	2.11
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	15.4	14.5	15.4
Adj. Field Moisture Content % (AS1289.5.4.1)	17.5	15.1	17.1
Moisture Ratio % (AS1289.5.4.1)	113.0	104.0	111.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-2.0	-0.5	-1.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	98.0	97.0	93.5
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: P231433-33
Issue Number: 1
Date Issued: 17/08/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 13081
Date Sampled: 07/08/2023
Dates Tested: 07/08/2023 - 16/08/2023
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: Banyan Place Estate Stage 6 - Level One
Material: CLAY, Gravelly CLAY
Material Source: Imported



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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

	P23-13081A	P23-13081B	P23-13081C
Sample Number	P23-13081A	P23-13081B	P23-13081C
Test Number	98	99	100
Date Tested	07/08/2023	07/08/2023	07/08/2023
Time Tested	**	**	**
Test Request #/Location	98 Lot 606	99 Lot 604	100 Lot 602
Layer / Reduced Level	Layer 8	Layer 8	Layer 8
Thickness of Layer (mm)	300	300	300
Soil Description	CLAY	CLAY	Gravelly 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	2.04	2.07	2.12
Field Moisture Content %	24.7	25.1	12.2
Field Dry Density (FDD) t/m ³	1.63	1.65	1.88
Peak Converted Wet Density t/m ³	1.99	2.01	2.16
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	**	**
Adj. Field Moisture Content % (AS1289.5.4.1)	24.7	25.1	12.2
Moisture Ratio % (AS1289.5.4.1)	104.0	100.0	97.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-1.0	0.0	0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	102.0	103.0	98.0
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: P231433-34A
Issue Number: 1
Date Issued: 08/09/2023
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: P231433
Project Name: Banyan Place Estate Stage 6 - Level One
Project Location: Pakenham
Work Request: 13090
Date Sampled: 08/08/2023
Dates Tested: 08/08/2023 - 09/08/2023
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: Banyan Place Estate- Stage 6
Material: CLAY
Material Source: Imported



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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	P23-13090A		
Test Number	101		
Date Tested	08/08/2023		
Time Tested	**		
Test Request #/Location	101 Lot 642 Retest #97		
Layer / Reduced Level	Layer 7		
Thickness of Layer (mm)	300		
Soil Description	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)	0		
Field Wet Density (FWD) t/m ³	2.02		
Field Moisture Content %	15.0		
Field Dry Density (FDD) t/m ³	1.76		
Peak Converted Wet Density t/m ³	2.08		
Adjusted Peak Converted Wet Density t/m ³	**		
Adj. Optimum Moisture Content % (AS1289.5.4.1)	15.8		
Adj. Field Moisture Content % (AS1289.5.4.1)	15.0		
Moisture Ratio % (AS1289.5.4.1)	95.0		
Adjusted Moisture Ratio % (AS1289.5.4.1)	**		
Moisture Variation (Wv) %	1.0		
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

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 601

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 601 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 602

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 602 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 603

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 603 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 604

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 604 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 605

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 605 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 606

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 606 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 607

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 607 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 608

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 608 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 609

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 609 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 610

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 610 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 611

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 611 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 612

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 612 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 613

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 613 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 614

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 615

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C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 616

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C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 617

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Lot 617 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 618

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Lot 618 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 619

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 619 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 620

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 620 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 621

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 621 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 622

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 622 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 623

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 624

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 624 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 625

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 626

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 626 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 627

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 627 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 628

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 628 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 629

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 629 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 630

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 630 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 631

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 631 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 632

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 632 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 633

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 633 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 634

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 634 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 635

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 635 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 636

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 636 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 637

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 637 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 638

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 638 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 639

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 639 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 640

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 640 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 641

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 641 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 642

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 642 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 643

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 643 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 644

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 644 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: P231433A) has been published on 8 Sep 2023 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

8 Sep 2023

TO WHOM IT MAY CONCERN

Re: Banyan Place Estate Stage 6
Officer
Lot 645

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Banyan Place Estate, Stage 6, Officer in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 645 as defined in drawing Ref 1470_6/R25 from *Charlton Degg*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "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" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager