Peet No. 1895 Pty Ltd

Level 1 Inspection and Testing
Stage 1 Bulk Earthworks - Little Green
Residential Precinct 1

GEOTABTF09878AA-AD

19 May 2016

When you
think with a
global mind
problems
get smaller

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Level 1 Inspection and Testing, Stage 1, Little Green Residential Precinct 1

Prepared for
Peet No. 1895 Pty Ltd

Prepared by

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19 May 2016

Document authorisation

Our ref: GEOTABTF09878AA-AD

For and on behalf of Coffey

Sotir Stojcevski
Principal Geotechnician, Earthworks Team Leader

Quality information

Revision history

Revision	Description	Date	Author	Reviewer	Signatory
1	Level 1 Report	19/05/2016	Nirav Patel, Igor Ilkov	David Annan	Sotir Stojcevski

Distribution

Report Status	No. of copies	Format	Distributed to	Date
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1. Introduction

This report presents the results of the Level 1 Inspection and Testing for fill placement within Stage 1 of the Little Green Residential Estate Precinct 1, Tarneit, undertaken by Coffey Geotechnics Pty Ltd (Coffey).

The works were commissioned by Mark Zammataro of Spiire Australia Pty Ltd (Spiire) on behalf of Amex Corporation Pty Ltd (Amex).

2. Project Summary

We understand that Spiire requires fill placement within Stage 1 of the Little Green Residential Estate Precinct 1 in the areas as shown in Figure 1. These engineering fill platforms are to be constructed under Level 1 Inspection and Testing undertaken by a Geotechnical Inspection and Testing Authority (GITA).

Level 1 Inspection and Testing, as defined in AS3798-2007 “Guidelines on Earthworks for Commercial and Residential Development,” provides for full time inspection of the construction of controlled fill and field and laboratory testing in accordance with AS1289 “Methods of Testing Soils for Engineering Purposes”.

The Level 1 Inspection was undertaken by geotechnical professionals from Coffey over several periods between 1 April 2015 and 1 December in 2015 and then 31 March to 8 April and 16 May in 2016.

The main contractor for the project was BMD Constructions who in combination with their subcontractor Fleet Plant Hire, have conducted the bulk earthworks at the site. Coffey undertook the compaction control testing in their NATA accredited laboratory, as part of the Level 1 Inspection and Testing process.

This report is applicable to fill placed by BMD and Fleet Plant Hire within Stage 1 Bulk Earthworks of the Little Green Estate development in the areas shown in Figure 1. Figure 1 also identifies the filling areas of the engineered fill platforms.

This report does not include fill other than where mentioned in this report or any other fill that may be placed during this period or subsequent periods at or surrounding the subject site. Excluded works comprise trench backfill, foot paths, landscaping fill, roadway testing, sewer and stormwater channels backfills.

3. Specification/work instructions

The specification for the project was prepared by Spiire Australia Pty Ltd for Little Green Residential Estate Precinct 1 under reference number “301119 Little Green Bulk Earthworks – Rev B” dated 20 February 2015. A maximum compacted layer thickness of 200mm was to be adopted for the project. However from 2 June 2015, after discussions between Coffey, BMD and Spiire on 22 May 2015, a maximum compacted layer thickness of 300mm was allowed to accommodate for a desire to complete construction earlier. The extract of the specified requirements is provided in Appendix B and a short summary is provided below:

- All filling shall be to a level 150mm below the finished surface level shown and compacted as per AS3798-1998. Filling material is to be in accordance with the specification and to the satisfaction of council and the superintendent.
- Fill areas are to be stripped of topsoil, filled and replaced with topsoil, where required, to obtain the final levels shown on the drawings provided by Spiire under reference number "301119 Little Green Bulk Earthworks – Rev B". Filling material is to be in accordance with the specification of AS3798-2007 and to the satisfaction of council and the superintendent.
- All filling on lots and within road reserves greater than 200mm is to be undertaken using level 1 supervision and completed in accordance with AS 3798-2007.
- Item 13 of the Specifications under reference "301119 Little Green Bulk Earthworks – Rev B" dated 20 February 2015 notes that fill placed on allotment areas is to achieve the following specifications:
    - Maximum dry density of 98%;
    - Minimum California Bearing Ratio (CBR) of 5%; and
    - Bearing pressure of 100kPa at less than 1.0m depth from finished surface level or bulk filling surface level and bearing pressure of 150kPa at greater than 1.0m depth from finished surface level or bulk surface level.

  Email correspondence from Mark Zammataro of Spiire sent to Coffey and BMD 25 May 2015 indicated that the filling works were to achieve the following specifications:
    - Layers not exceeding 200mm compacted thickness;
    - Density ratio to be minimum 95% Standard;
    - No CBR value requirement;
    - Moisture variation to be within 3% of the optimum moisture condition (OMC); and
    - Allowed rock size to be up to 130mm diameter, i.e. 2/3 of a layer.

  Following further discussions between Mark Zammataro of Spiire and Sotir Stojcevski of Coffey, the specifications were altered to meet the following requirements:
    - A compacted layer thickness not exceeding 300mm;
    - Maximum dry density of 95%; and
    - Moisture variation to be within ±3% OMC.
- The contractor is to provide a clean fill certificate of the proposed imported fill for approval by Coffey's geotechnical engineer, prior to importation.

4. Fill Material

Fill used for the construction of Stage 1 Bulk Earthworks comprised of imported soils from various sites around the Melbourne area. A spread sheet indicating the source name and estimated volumes

is attached in Appendix C. It is noted that Coffey's summary of imported fill material was derived from daily discussions held by the Level 1 GITA representative and Fleet Plant Hire site foreman. Environmental assessment of the imported materials is understood to have been conducted by the Contractor – BMD. A clean fill summary sheet is also attached in Appendix C as provided by BMD. The clean fill reports for the source locations are held by BMD.

Organic or deleterious matter and oversize materials that were observed within the imported fill were removed prior to placing the engineered fill platforms.

Coffey consider that the imported fill material was suitable for the construction of the engineered fill platforms.

5. Earthworks

The earthworks for this project included stripping of topsoil, proof rolling the subgrade and placement and compaction of fill to construct engineered fill platforms.

5.1. Subgrade assessment

The subgrade assessment was undertaken progressively throughout the works in sections. The first subgrade section was assessed on 1 April 2015. Subgrade assessment was conducted following the removal of topsoil and before any fill was placed. In all areas the subgrade comprised natural clay of very stiff to hard consistency. No soft spots were observed during the subgrade proof rolling. Where organics and roots were observed, they were removed. A surveyor engaged by BMD undertook a survey of the subgrade levels following Coffey's assessment.

5.2. Fill construction

Fill material was placed generally in loose layers varying in thickness from 200mm to 350mm. Compacted layers were approximately 150mm to 300mm thick.

All sourced fill was trucked in and spread with the blade of a compactor. A water cart and a pad foot roller were present onsite during works for moisture conditioning and compacting.

Coffey's Level 1 Inspector was on site on a full time basis during the placement, compaction and testing of the fill on the dates noted in Section 2 of this report.

6. Survey data and fill thickness

BMD's appointed surveyor Jac Surveyors Pty Ltd conducted a survey of stage 1 prior to and after stripping the topsoil during the earthworks. Jac Surveyors' survey plans are provided in Appendix B of this report under reference "301119R02 Rev D and 301518R02 Rev 2" as Stage 1 and Stage 2 of the civil drawings, dated 1 September 2015 and 3 August 2015 respectively.

The survey plan attached in Appendix B titled "Stage 1 – Strip surface and asbuilt survey combination drawing" was extracted from CAD files provided by BMD. It shows the reduced levels (RLs) of the stripped surface for Stage 1. Coffey understands that topsoil was placed to meet the design finished surface levels as indicated in the specifications. It is also understood that the finished surface level has not been surveyed.

Comparing the stripped surface survey data and the design FSL (included between 0.2m to 0.25m of topsoil) the approximate fill levels where determined for the fill pads indicated in Figure 1-A and presented in the table below.

Table 1 Layer Thickness Compliance

Fill Pad No.	Max. depth of Fill (m)	Recorded number of Layers	Complies with project specifications
1	*1.75*	*5*	YES
2	*1.26*	*6*	YES
3	*1.9*	*6*	YES
4	*1.2*	*3*	YES
5	*1.1*	*4*	YES
6	*1.55*	*7*	YES
7	*1.4*	*6*	YES
8	*2.0*	*6*	YES
9	*2.1*	*8*	YES

Coffey considers that the produced layer thickness is in compliance with the specifications of AS 3798-2007 and is within the specifications outlined in section 3 of this report.

7. Testing and results

Field density testing was undertaken progressively on the compacted fill. Testing frequency was undertaken as follows:

For large areas of fill placement, the following testing frequency was undertaken:

- 1 test per material type per layer per 2500m^2 or 1 test per 500m^3 or 3 tests per lot – whichever requires most tests in accordance with Type 1 Earthworks (large scale operations) as defined in Table 8.1 of the AS 3798-2007.

For areas requiring only partial filling to meet the design levels, the following testing frequency was undertaken:

- 1 test per layer or 1 test per 200m^3 distributed reasonably evenly throughout the fill depth or 1 test per residential lot – whichever requires the most tests in accordance with Type 2 Earthworks (small scale operations) as defined in Table 8.1 of the AS 3798-2007.

The field density testing was conducted by Coffey's personnel on site. All laboratory testing was performed in Coffey's NATA accredited laboratory. A Hilf compaction test was performed for each field density test.

A total of 193 field density tests were performed during the earthworks as presented in Figure 1. Of the 193 tests, 35 did not meet the specified criteria and these areas were subsequently re-worked and re-tested. Once retested, all test results met the specified dry density ratio criteria of 95% Standard and moisture variation of ±3% of the Optimum Moisture Content (OMC).

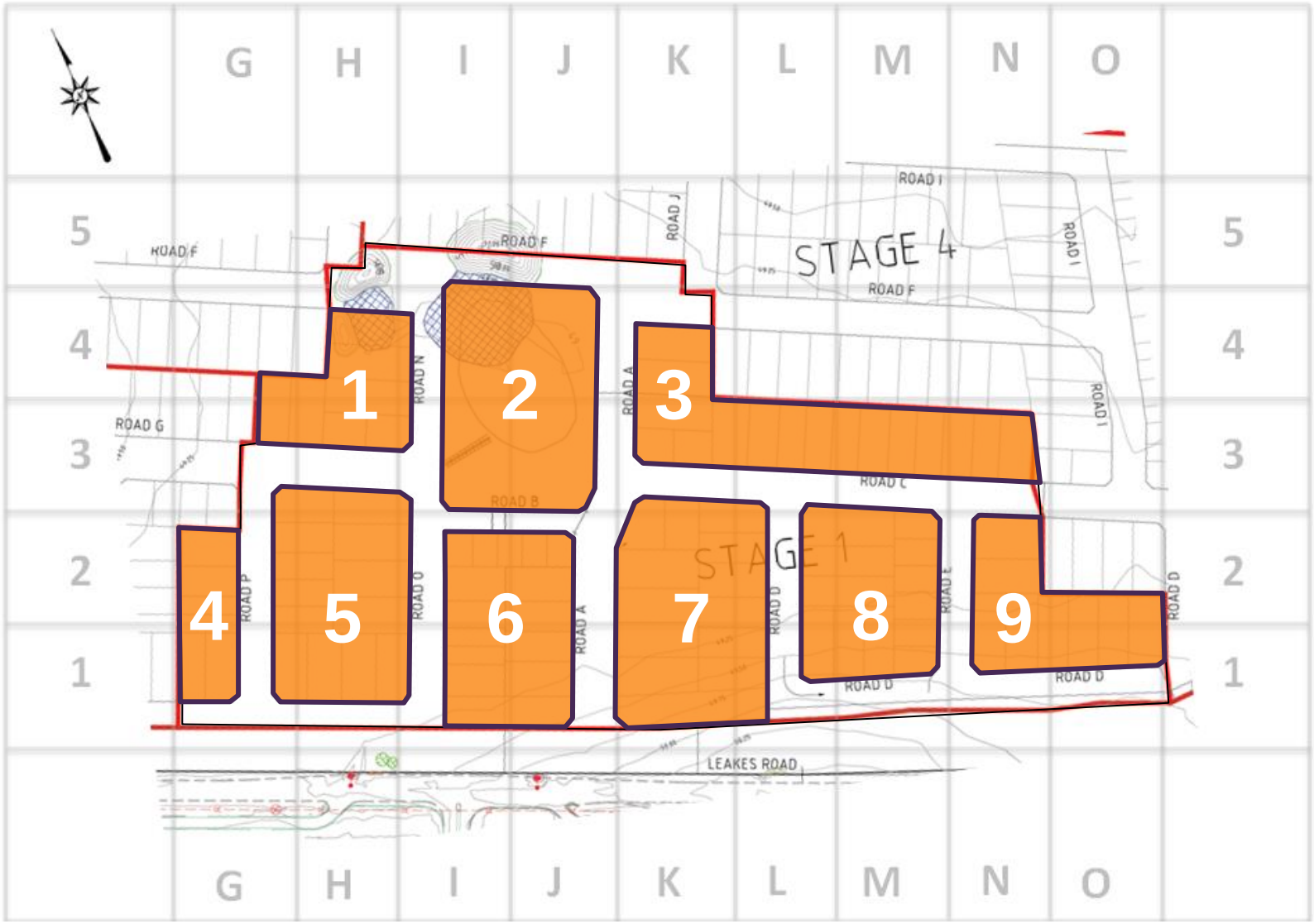
A summary of the test results obtained from the field density testing within the Stage 1 fill platforms are provided in a table presented as Figure 2. The laboratory test reports of the field density tests are presented in Appendix A.

8. Statement of compliance

Coffey personnel have provided Level 1 Geotechnical Inspection and Testing Authority services during the construction of the engineered fill areas within Stage 1 Bulk Earthworks as shown in Figure 1-A. A geotechnical professional from Coffey (Level 1 Inspector) was on site on a full time basis during subgrade preparation and fill placement, and observed the construction techniques adopted.

Based on observations made by Coffey's Level 1 Inspector and the results of field and laboratory tests, Coffey consider that the engineered fill area within Stage 1 constructed by BMD to the levels indicated in Section 6, as far as we have been able to determine, has been placed in general accordance with the intent of the specification.

Figures



LEGEND

Approximate location of fill pads

Source: Extracted from 301119 LITTLE GREEN BULK EARTHWORKS - REV B

drawn	II
approved	SS
date	11/05/2016
scale	NTS
original size	A4

coffey
A TETRA TECH COMPANY

client:	AMEX CORPORATION PTY LTD
project:	STAGE 1 – LEVEL 1 LITTLE GREEN ESTATE
title:	FILL AREA PLAN
project no:	GEOTABTF09878AA - AD
figure no:	FIGURE 1-A

LEGEND

Approximate location of field density test- Layer 1 (Passed)

Approximate location of field density test- Layer 1 (Failed)

TESTING

No. of passed tests: 30

No. of failed tests: 18

Total for Layer 1: 48

Source: Extracted from 301119 LITTLE GREEN BULK EARTHWORKS - REV B

drawn	NP
approved	SS
date	01/12/2015
scale	NTS
original size	A4

coffey
A TETRA TECH COMPANY

client:	AMEX CORPORATION PTY LTD
project:	STAGE 1 – LEVEL 1 LITTLE GREEN ESTATE
title:	TEST LOCATION PLAN FOR LAYER 1
project no:	GEOTABTF09878AA - AD
figure no:	FIGURE 1-B

LEGEND

Approximate location of field density test- Layer 2 (Passed)

Approximate location of field density test- Layer 2 (Failed)

TESTING

No. of passed tests: 31

No. of failed tests: 2

Total for Layer 2: 33

Source: Extracted from 301119 LITTLE GREEN BULK EARTHWORKS - REV B

drawn	NP
approved	SS
date	01/12/2015
scale	NTS
original size	A4

coffey
A TETRA TECH COMPANY

client:	AMEX CORPORATION PTY LTD
project:	STAGE 1 – LEVEL 1 LITTLE GREEN ESTATE
title:	TEST LOCATION PLAN FOR LAYER 2
project no:	GEOTABTF09878AA - AD
figure no:	FIGURE 1-C

LEGEND

Approximate location of field density test- Layer 3 (Passed)

TESTING

No. of passed tests: 29

No. of failed tests: 0

Total for Layer 3: 29

Source: Extracted from 301119 LITTLE GREEN BULK EARTHWORKS - REV B

drawn	NP
approved	SS
date	01/12/2015
scale	NTS
original size	A4

coffey
A TETRA TECH COMPANY

client:	AMEX CORPORATION PTY LTD
project:	STAGE 1 – LEVEL 1 LITTLE GREEN ESTATE
title:	TEST LOCATION PLAN FOR LAYER 3
project no:	GEOTABTF09878AA - AD
figure no:	FIGURE 1-D

LEGEND

Approximate location of field density test- Layer 4 (Passed)

Approximate location of field density test- Layer 4 (Failed)

TESTING

No. of passed tests: 26

No. of failed tests: 8

Total for Layer 4: 34

Source: Extracted from 301119 LITTLE GREEN BULK EARTHWORKS - REV B

drawn	NP/II
approved	SS
date	11/05/2016
scale	NTS
original size	A4

coffey
A TETRA TECH COMPANY

client:	AMEX CORPORATION PTY LTD
project:	STAGE 1 – LEVEL 1 LITTLE GREEN ESTATE
title:	TEST LOCATION PLAN FOR LAYER 4
project no:	GEOTABTF09878AA - AD
figure no:	FIGURE 1-E

LEGEND

Approximate location of field density test- Layer 5 (Passed)

Approximate location of field density test- Layer 5 (Failed)

TESTING

No. of passed tests: 15

No. of failed tests: 3

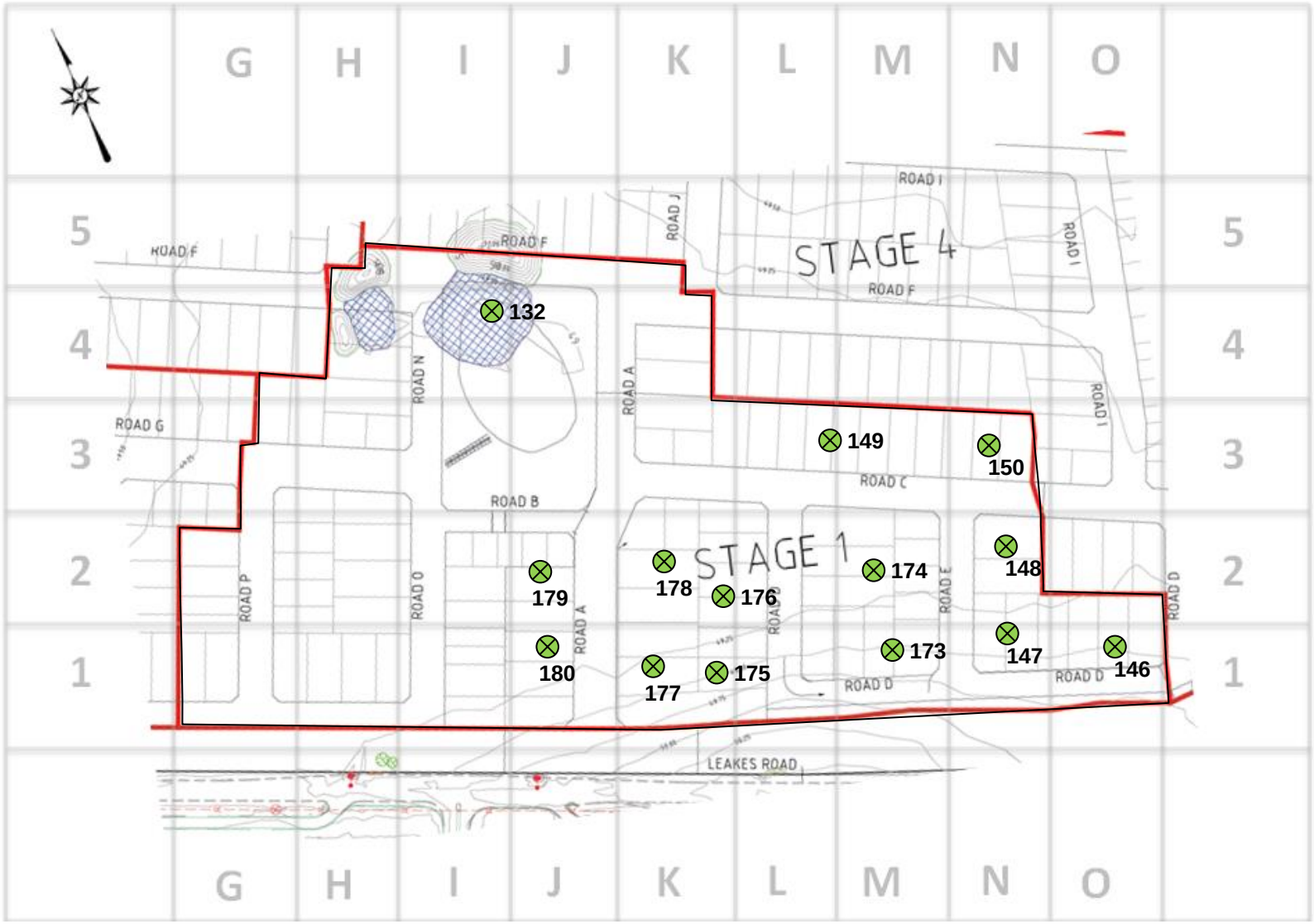
Total for Layer 5: 18

Source: Extracted from 301119 LITTLE GREEN BULK EARTHWORKS - REV B

drawn	NP/II
approved	SS
date	18/05/2016
scale	NTS
original size	A4

coffey
A TETRA TECH COMPANY

client:	AMEX CORPORATION PTY LTD
project:	STAGE 1 – LEVEL 1 LITTLE GREEN ESTATE
title:	TEST LOCATION PLAN FOR LAYER 5
project no:	GEOTABTF09878AA - AD
figure no:	FIGURE 1-F



LEGEND

Approximate location of field density test- Layer 6 (Passed)

TESTING

No. of passed tests: 14

No. of failed tests: 1

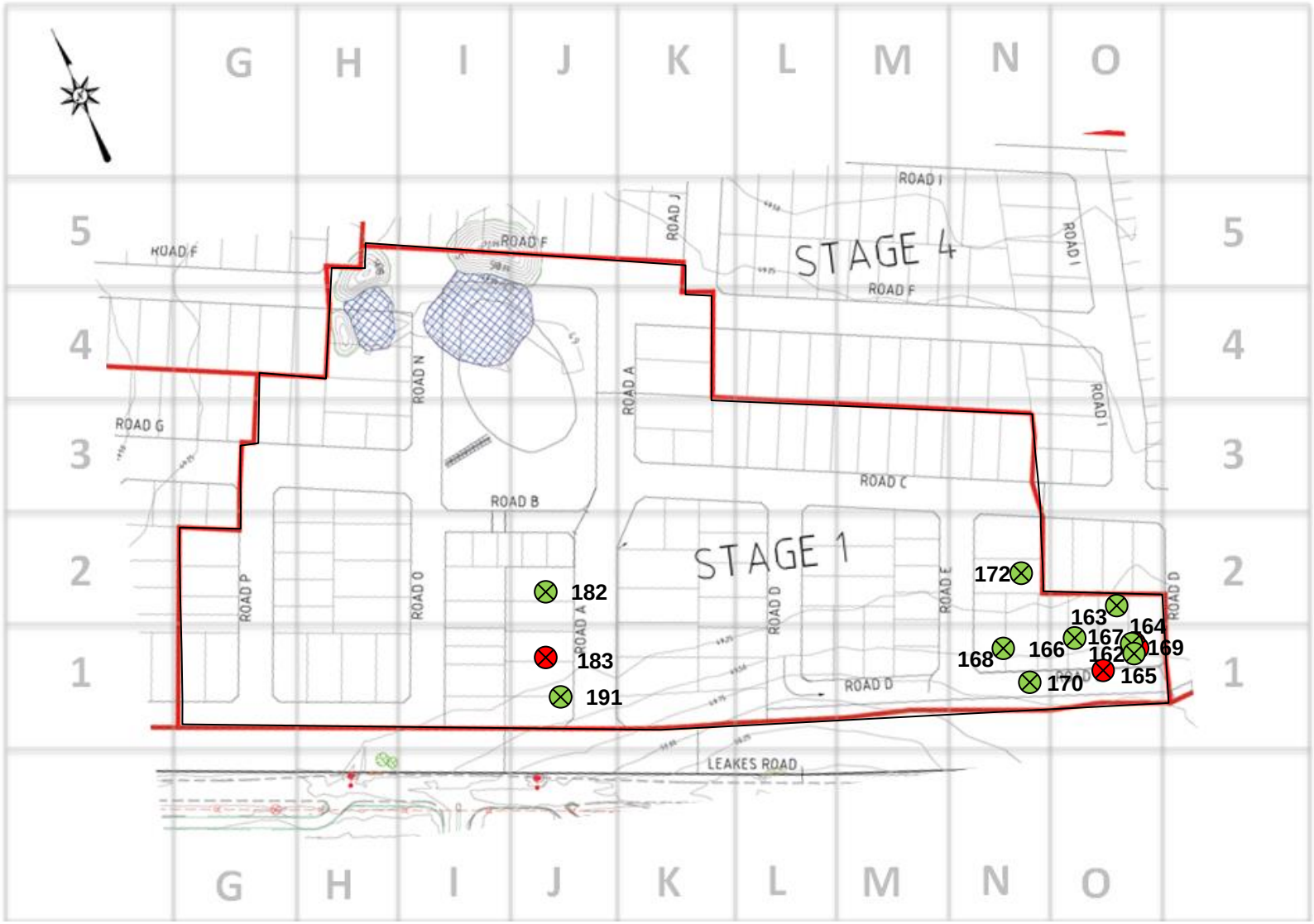
Total for Layer 6: 15

Source: Extracted from 301119 LITTLE GREEN BULK EARTHWORKS - REV B

drawn	NP
approved	SS
date	01/12/2015
scale	NTS
original size	A4

coffey
A TETRA TECH COMPANY

client:	AMEX CORPORATION PTY LTD
project:	STAGE 1 – LEVEL 1 LITTLE GREEN ESTATE
title:	TEST LOCATION PLAN FOR LAYER 6
project no:	GEOTABTF09878AA - AD
figure no:	FIGURE 1-G



LEGEND

Approximate location of field density test- Layer 7 (Passed)

Approximate location of field density test- Layer 7 (Failed)

TESTING

No. of passed tests: 9

No. of failed tests: 3

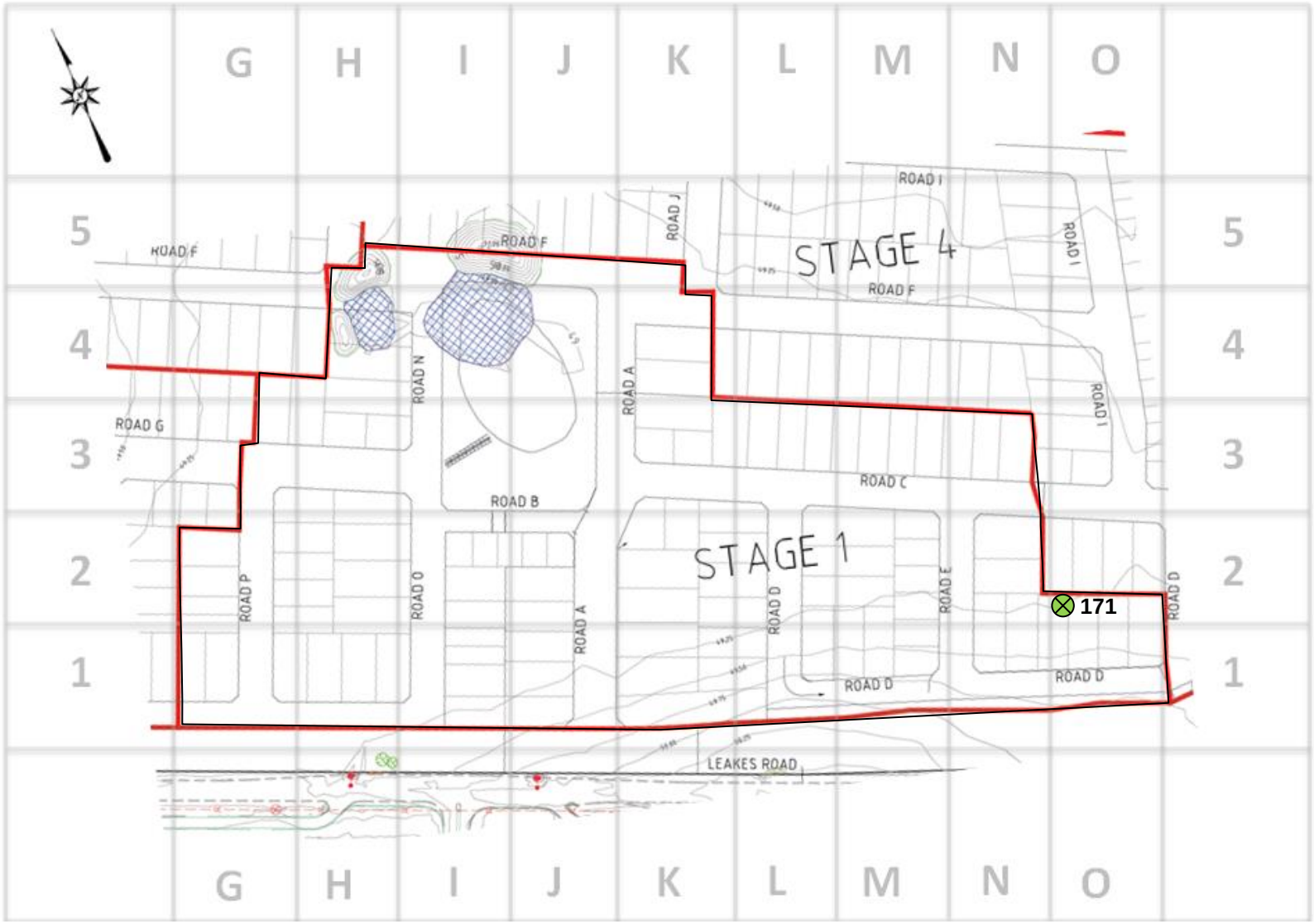
Total for Layer 7: 12

Source: Extracted from 301119 LITTLE GREEN BULK EARTHWORKS - REV B

drawn	NP/II
approved	SS
date	18/05/2016
scale	NTS
original size	A4

coffey
A TETRA TECH COMPANY

client:	AMEX CORPORATION PTY LTD
project:	STAGE 1 – LEVEL 1 LITTLE GREEN ESTATE
title:	TEST LOCATION PLAN FOR LAYER 7
project no:	GEOTABTF09878AA - AD
figure no:	FIGURE 1-H



LEGEND

Approximate location of field density test- Layer 8 (Passed)

TESTING

No. of passed tests: 1

No. of failed tests: 0

Total for Layer 8: 1

Source: Extracted from 301119 LITTLE GREEN BULK EARTHWORKS - REV B

drawn	NP
approved	SS
date	01/12/2015
scale	NTS
original size	A4

coffey
A TETRA TECH COMPANY

client:	AMEX CORPORATION PTY LTD
project:	STAGE 1 – LEVEL 1 LITTLE GREEN ESTATE
title:	TEST LOCATION PLAN FOR LAYER 8
project no:	GEOTABTF09878AA - AD
figure no:	FIGURE 1-I

Figure 2: Summary of Field Density Test Results

Project:		Little Green Estate			Coffey Job #:		GEOTABTF09878AA							
Client:	0	SPIIRE / PEET	0	0	Period:	0	April 2015	0		0	0	0	0	0
Test	Retest	Date	Location	Layer	Field	Field	Hilf	Moisture	Moisture	Pass	Retest	Comment		
	of Test				Wet	Moisture	Density	Ratio	Variation	/				
			Grid		Density	Content	Ratio		of OMC	Fail				
#	#		Reference	#	(t/m3)	(%)	(%)	(%)	(%)		#			
1		Monday, 4 May 2015	O1	1	1.79	23.5	96	85	-4	Fail	7			
2		Monday, 4 May 2015	N1	1	1.87	21	93.5	91.5	-2	Fail	11			
3		Wednesday, 6 May 2015	N2	1	1.81	27	93	101.5	0.5	Fail	8			
4		Wednesday, 6 May 2015	N3	1	1.73	24.5	93	85.5	-4	Fail	9			
5		Saturday, 9 May 2015	L3	1	1.9	32	98.5	116.5	4.5	Fail	20			
6		Saturday, 9 May 2015	L2	1	1.86	33	98	115	4	Fail	19			
7	1	Saturday, 9 May 2015	O1	1	1.99	18.5	106.5	78.5	-5	Fail	10			
8	3	Monday, 11 May 2015	N2	1	1.97	24.5	99.5	102.5	0.5	Pass				
9	4	Monday, 11 May 2015	N3	1	1.86	24.5	96	97.5	-0.5	Pass				
10	7	Monday, 11 May 2015	O1	1	1.98	19.5	98	99	0	Pass				
11	2	Tuesday, 12 May 2015	N1	1	1.83	26	95	99	-0.5	Pass				
12		Tuesday, 12 May 2015	M3	1	1.87	25.5	96	98.5	-0.5	Pass				
13		Tuesday, 12 May 2015	O1	2	1.93	26.5	98	101.5	0.5	Pass				
14		Wednesday, 13 May 2015	M1	1	1.9	22	100.5	91	-2	Pass				
15		Wednesday, 13 May 2015	M2	1	1.96	24.5	101.5	99	0	Pass				
16		Wednesday, 13 May 2015	N2	2	1.99	22	103	98.5	-0.5	Pass				
17		Wednesday, 13 May 2015	N3	2	1.88	32	99.5	105.5	1.5	Pass				
18		Thursday, 14 May 2015	L1	1	1.97	23.5	98	98	-0.5	Pass				
19	6	Thursday, 14 May 2015	L2	1	1.96	24.5	97.5	99.5	0	Pass				
20	5	Thursday, 14 May 2015	L3	1	2	20	102.5	91.5	-2	Pass				
21		Thursday, 14 May 2015	N1	2	1.86	28.5	98	100	0	Pass				
22		Monday, 18 May 2015	K1	1	1.96	27.5	101	99.5	0	Pass				
23		Monday, 18 May 2015	K2	1	1.91	25	99.5	99.5	0	Pass				
24		Monday, 18 May 2015	K3	1	1.92	21	101	90	-2	Pass				
25		Monday, 18 May 2015	M2	2	2.01	29.5	104	100	0	Pass				
26		Monday, 18 May 2015	M1	2	1.93	26	100	100	0	Pass				
27		Wednesday, 20 May 2015	J1	1	1.84	19	92.5	87.5	-2.5	Fail	31			
28		Wednesday, 20 May 2015	J2	1	1.83	25.5	90.5	100	0	Fail	32			
29		Wednesday, 20 May 2015	J3	1	1.79	25	88.5	101.5	0.5	Fail	33			
30		Wednesday, 20 May 2015	M3	2	1.96	23.5	98	101.5	0.5	Pass				
31	27	Thursday, 21 May 2015	J1	1	1.91	25.5	94.5	100	0	Fail	38			
32	28	Thursday, 21 May 2015	J2	1	1.85	19	92.5	85.5	-2.5	Fail	39			
33	29	Thursday, 21 May 2015	J3	1	1.77	22.5	89.5	91	-2	Fail	40			

Figure 2: Summary of Field Density Test Results

Project:		Little Green Estate			Coffey Job #:		GEOTABTF09878AA								
Client:	0	SPIIRE / PEET	0	0	Period:	0	April 2015	0		0	0	0	0	0	
Test	Retest	Date	Location	Layer	Field	Field	Hilf	Moisture	Moisture	Pass	Retest	Comment			
	of Test				Wet	Moisture	Density	Ratio	Variation	/					
			Grid		Density	Content	Ratio		of OMC	Fail					
#	#		Reference	#	(t/m3)	(%)	(%)	(%)	(%)		#				
34		Monday, 25 May 2015	L3	2	2.04	25	101	99.5	0	Pass					
35		Monday, 25 May 2015	L2	2	1.98	25	99.5	100.5	0	Pass					
36		Monday, 25 May 2015	L1	2	1.91	29	98.5	107	2	Pass					
37		Monday, 25 May 2015	O1	3	1.94	19.5	102	88	-2.5	Pass					
38	31	Tuesday, 26 May 2015	J1	1	1.95	25	98	99.5	0	Pass					
39	32	Tuesday, 26 May 2015	J2	1	2.15	25	105	99.5	0	Pass					
40	33	Tuesday, 26 May 2015	J3	1	1.94	26.5	97.5	99.5	0	Pass					
41		Tuesday, 26 May 2015	I3	1	1.86	28	95	99	0	Pass					
42		Tuesday, 26 May 2015	I2	1	1.84	28.5	93.5	100	0	Fail	45				
43		Tuesday, 26 May 2015	I1	1	1.83	27	92.5	99.5	0	Fail	44				
44	43	Wednesday, 27 May 2015	I1	1	1.98	24	101	90.5	-2	Pass					
45	42	Wednesday, 27 May 2015	I2	1	1.99	25.5	99.5	100.5	0	Pass					
46		Wednesday, 27 May 2015	K1	2	1.92	20.5	96	100.5	0	Pass					
47		Wednesday, 27 May 2015	K2	2	2.02	20	101.5	92	-1.5	Pass					
48		Wednesday, 27 May 2015	K3	2	1.96	24.5	95	100.5	0	Pass					
49		Thursday, 28 May 2015	H1	1	1.86	20	95	87	-3	Pass					
50		Thursday, 28 May 2015	H2	1	1.97	21.5	99	101	0	Pass					
51		Thursday, 28 May 2015	H3	1	1.96	21.5	99	99.5	0	Pass					
52		Thursday, 28 May 2015	J1	2	1.9	20.5	95.5	101	0	Pass					
53		Thursday, 28 May 2015	J2	2	2.03	23.5	100.5	100.5	0	Pass					
54		Thursday, 28 May 2015	J3	2	1.93	21.5	97	98	-0.5	Pass					
55		Friday, 29 May 2015	G1	1	1.84	22.5	97	89	-2.5	Pass					
56		Friday, 29 May 2015	G2	1	1.9	24	100.5	92	-2	Pass					
57		Friday, 29 May 2015	G3	1	1.86	24.5	95.5	100	0	Pass					
58		Saturday, 30 May 2015	I1	2	1.84	23	95.5	92	-2	Pass					
59		Saturday, 30 May 2015	I2	2	2.02	24.5	100.5	99.5	0	Pass					
60		Saturday, 30 May 2015	I3	2	1.84	25	93.5	98.5	-0.5	Fail	69				
61		Tuesday, 2 June 2015	N3	3	2.08	24.5	104	100.5	0	Pass					
62		Tuesday, 2 June 2015	N2	3	1.96	19.5	101.5	88.5	-2.5	Pass					
63		Tuesday, 2 June 2015	N1	3	2.09	22	103.5	100.5	0	Pass					
64		Tuesday, 2 June 2015	N3	3	2.01	18	102	87	-2.5	Pass					
65		Tuesday, 2 June 2015	M1	3	1.96	21.5	99.5	92.5	-1.5	Pass					
66		Tuesday, 2 June 2015	M2	3	1.91	24.5	98.5	91	-2	Pass					

Figure 2: Summary of Field Density Test Results

Project:		Little Green Estate			Coffey Job #:		GEOTABTF09878AA								
Client:	0	SPIIRE / PEET	0	0	Period:	0	April 2015	0		0	0	0	0	0	
Test	Retest	Date	Location	Layer	Field	Field	Hilf	Moisture	Moisture	Pass	Retest	Comment			
	of Test				Wet	Moisture	Density	Ratio	Variation	/					
			Grid		Density	Content	Ratio		of OMC	Fail					
#	#		Reference	#	(t/m3)	(%)	(%)	(%)	(%)		#				
67		Tuesday, 2 June 2015	M2	3	1.93	19.5	99.5	90	-2	Pass					
68		Tuesday, 2 June 2015	M3	3	1.84	25.5	96	94	-1.5	Pass					
69	60	Wednesday, 3 June 2015	I3	2	1.99	23	100	100.5	0	Pass					
70		Wednesday, 3 June 2015	H3	2	1.9	20.5	97	89.5	-2	Pass					
71		Wednesday, 3 June 2015	H2	2	1.92	23	95.5	101	0	Pass					
72		Wednesday, 3 June 2015	H1	2	2	22.5	99	101	0	Pass					
73		Thursday, 4 June 2015	Dam-H4	1	1.81	24.5	99.5	86	-3.5	Fail	78				
74		Thursday, 4 June 2015	Dam- I4	1	2.02	19	96	99	0	Pass					
75		Wednesday, 10 June 2015	G3	2	1.95	17.5	98	90.5	-2	Pass					
76		Wednesday, 10 June 2015	G2	2	1.96	21	103	87	-3	Pass					
77		Wednesday, 10 June 2015	G1	2	1.88	20	100	87	-3	Pass					
78	73	Wednesday, 10 June 2015	Dam- H4	1	1.74	25	96	89.5	-3	Pass					
79		Friday, 12 June 2015	K4	1	1.86	21.5	98	84	-3.5	Fail	84				
80		Friday, 12 June 2015	J4	1	1.84	22.5	92.5	98	-0.5	Fail	85				
81		Friday, 12 June 2015	Between dams-I4	1	2.16	16.5	101	102	0.5	Pass					
82		Friday, 12 June 2015	Dam-H4	2	1.98	28	108.5	92	-2.5	Pass					
83		Friday, 12 June 2015	Dam-I4	2	1.86	31	106.5	89	-3.5	Fail	86				
84	79	Monday, 15 June 2015	K4	1	1.98	22	99	97.5	-0.5	Pass					
85	80	Monday, 15 June 2015	J4	1	1.94	22	96.5	99.5	0	Pass					
86	83	Monday, 15 June 2015	Dam- I4	2	1.8	29.5	96.5	92	-2.5	Pass					
87		Wednesday, 17 June 2015	Dam- H4	3	1.86	26	97	96.5	-1	Pass					
88		Wednesday, 17 June 2015	I4	2	1.96	23.5	99	91.5	-2	Pass					
89		Wednesday, 17 June 2015	Dam-I4	3	1.84	19	97.5	88.5	-2.5	Pass					
90		Monday, 22 June 2015	L3	3	2	22.5	103	89.5	-2.5	Pass					
91		Monday, 22 June 2015	L2	3	2.02	24.5	100	101.5	0.5	Pass					
92		Monday, 22 June 2015	L2	3	1.93	25.5	99	97	-0.5	Pass					
93		Monday, 22 June 2015	L1	3	1.83	21.5	96	87.5	-3	Pass					
94		Monday, 22 June 2015	K1	3	1.75	26	96.5	89	-3	Pass					
95		Monday, 22 June 2015	K2	3	2.08	26	104	98	-0.5	Pass					
96		Monday, 22 June 2015	K2	3	1.9	22	97.5	91	-2	Pass					
97		Monday, 22 June 2015	K3	3	2.02	21.5	98.5	97.5	-0.5	Pass					
98		Monday, 22 June 2015	M3	4	1.81	23.5	95	96.5	-1	Pass					
99		Monday, 22 June 2015	M3	4	1.81	25	95	96	-1	Pass					

Figure 2: Summary of Field Density Test Results

Project:		Little Green Estate			Coffey Job #:		GEOTABTF09878AA							
Client:	0	SPIIRE / PEET	0	0	Period:	0	April 2015	0		0	0	0	0	0
Test	Retest	Date	Location	Layer	Field	Field	Hilf	Moisture	Moisture	Pass	Retest	Comment		
	of Test				Wet	Moisture	Density	Ratio	Variation	/				
			Grid		Density	Content	Ratio		of OMC	Fail				
#	#		Reference	#	(t/m3)	(%)	(%)	(%)	(%)		#			
100		Monday, 22 June 2015	N3	4	1.94	27.5	99	98.5	-0.5	Pass				
101		Tuesday, 23 June 2015	M2	4	1.91	25.5	98.5	98.5	-0.5	Pass				
102		Tuesday, 23 June 2015	M2	4	1.74	22	90	91.5	-2	Fail	111			
103		Tuesday, 23 June 2015	N2	4	1.98	23.5	101	97.5	-0.5	Pass				
104		Tuesday, 23 June 2015	N1	4	1.85	17	95.5	86	-2.5	Pass				
105		Tuesday, 23 June 2015	N1/M1	4	1.81	23	94	91	-2	Fail	113			
106		Tuesday, 23 June 2015	M1	4	1.76	21.5	92.5	87	-3	Fail	112			
107		Tuesday, 23 June 2015	O1	4	2.05	20.5	101.5	100.5	0	Pass				
108		Tuesday, 23 June 2015	K4	2	1.96	17.5	101	87.5	-2.5	Pass				
109		Tuesday, 23 June 2015	J4	2	1.95	22.5	100	89.5	-2.5	Pass				
110		Tuesday, 23 June 2015	J4	2	2.03	15	100.5	85	-2.5	Pass				
111	102	Wednesday, 24 June 2015	M2	4	1.9	25	98.5	101.5	0.5	Pass				
112	106	Wednesday, 24 June 2015	M1	4	1.86	20	97	87	-3	Pass				
113	105	Wednesday, 24 June 2015	N1/M1	4	1.99	22.5	103	100	0	Pass				
114		Wednesday, 24 June 2015	Dam- I4	4	1.96	20.5	98.5	95.5	-1	Pass				
115		Wednesday, 24 June 2015	Between Dams- I4	3	2.03	20	102	99.5	0	Pass				
116		Wednesday, 24 June 2015	Dam- H4	4	1.95	21.5	101	90.5	-2	Pass				
117		Thursday, 25 June 2015	Dam- I4	5	2.1	21.5	102	89.5	-2.5	Pass				
118		Thursday, 25 June 2015	Dam- H4	5	2.08	19	101	88.5	-2.5	Pass				
119		Thursday, 25 June 2015	L3	4	2.09	21.5	102.5	96	-1	Pass				
120		Thursday, 25 June 2015	M3	5	2	21	102.5	96.5	-1	Pass				
121		Thursday, 25 June 2015	M3/N3	5	1.98	22.5	100.5	97	-0.5	Pass				
122		Thursday, 25 June 2015	N3	5	2	20.5	100.5	97	-0.5	Pass				
123		Thursday, 25 June 2015	J1	3	2.01	22.5	101	97	-0.5	Pass				
124		Thursday, 25 June 2015	J2	3	1.85	25.5	98	98.5	-0.5	Pass				
125		Thursday, 25 June 2015	J2	3	1.87	24	97	98.5	-0.5	Pass				
126		Thursday, 25 June 2015	J3	3	2.06	18	99	85	-3	Pass				
127		Thursday, 25 June 2015	H3/I3	3	1.92	21	95.5	89.5	-2.5	Pass				
128		Thursday, 25 June 2015	H3	3	1.91	25.5	96.5	98	-0.5	Pass				
129		Friday, 26 June 2015	K3	4	1.89	16.5	93	88.5	-2	Fail	135			
130		Friday, 26 June 2015	K4	3	1.93	18.5	99	88.5	-2.5	Pass				
131		Friday, 26 June 2015	K4	3	1.87	18.5	96.5	89	-2.5	Pass				
132		Friday, 26 June 2015	Dam-I4	6	1.95	22.5	97	98.5	-0.5	Pass				

Figure 2: Summary of Field Density Test Results

Project:		Little Green Estate			Coffey Job #:		GEOTABTF09878AA								
Client:	0	SPIIRE / PEET	0	0	Period:	0	April 2015	0		0	0	0	0	0	
Test	Retest	Date	Location	Layer	Field	Field	Hilf	Moisture	Moisture	Pass	Retest	Comment			
	of Test				Wet	Moisture	Density	Ratio	Variation	/					
			Grid		Density	Content	Ratio		of OMC	Fail					
#	#		Reference	#	(t/m3)	(%)	(%)	(%)	(%)		#				
133		Friday, 26 June 2015	N2	5	1.94	19.5	99	89	-2.5	Pass					
134		Friday, 26 June 2015	N1	5	2.01	19.5	104.5	88	-2.5	Pass					
135	129	Monday, 29 June 2015	K3	4	1.91	27	98	101	0.5	Pass					
136		Monday, 29 June 2015	O1	5	1.91	22.5	98.5	89.5	-2.5	Pass					
137		Tuesday, 30 June 2015	M2	5	1.96	26	100	90.5	-2.5	Pass					
138		Tuesday, 30 June 2015	M2/M1	5	1.91	20.5	104.5	83.5	-4	Fail	140				
139		Tuesday, 30 June 2015	L1	5	1.96	26.5	103.5	89	-3	Pass					
140	138	Wednesday, 1 July 2015	M2/M1	5	1.82	29.5	103.5	90.5	-3	Pass					
141		Friday, 3 July 2015	K2	4	1.84	26.5	99.5	91	-2.5	Pass					
142		Friday, 3 July 2015	K1	4	1.84	28.5	98.5	92	-2.5	Pass					
143		Friday, 3 July 2015	K2/L2	4	1.88	26.5	100	92	-2	Pass					
144		Friday, 3 July 2015	J1	4	2.03	18.5	99	89	-2	Pass					
145		Friday, 3 July 2015	J2	4	1.94	18.5	100	86	-3	Pass					
146		Friday, 10 July 2015	O1	6	1.81	30.3	97	98	-0.5	Pass					
147		Friday, 10 July 2015	N1	6	1.92	27.4	103.5	98.5	-0.5	Pass					
148		Friday, 10 July 2015	N2	6	1.85	26.6	102	88.5	-2.5	Pass					
149		Friday, 10 July 2015	M3	6	1.86	29.2	100	95.5	-1.5	Pass					
150		Friday, 10 July 2015	N3	6	1.84	32.5	98.5	99	-0.5	Pass					
151		Tuesday, 18 August 2015	K3	5	2.04	22.5	102	90	-2	Pass					
152		Wednesday, 19 August 2015	L3	5	1.85	30	96	92.5	-2	Pass					
153		Tuesday, 25 August 2015	G3	4	2.02	17	99.5	89	-2	Pass					
154		Tuesday, 25 August 2015	H4	4	1.88	19.5	103.5	74.5	-6.6	Fail	161				
155		Wednesday, 26 August 2015	J3	4	1.95	29	106	92	-2.5	Pass					
156		Wednesday, 26 August 2015	I3	4	2.08	23	109	83.5	-4	Fail	159				
157		Thursday, 27 August 2015	I4	4	1.88	20.5	104	81	-4.5	Fail	160				
158		Thursday, 27 August 2015	J4	3	1.94	30.5	106	92	-2.5	Pass					
159	156	Thursday, 27 August 2015	I3	4	1.96	23.5	98.5	101	0	Pass					
160	157	Friday, 28 August 2015	I4	4	1.92	27	99	101	0	Pass					
161	154	Monday, 31 August 2015	H4	4	1.86	25	95	101.5	0.5	Pass					
162		Tuesday, 27 October 2015	O1	7	1.95	24	104.5	82	5	Fail	164				
163		Wednesday, 28 October 2015	O2	7	2.05	24	103	99.5	0	Pass					
164	162	Wednesday, 28 October 2015	O1	7	2.02	18	112	78.5	5	fail	167				
165		Wednesday, 28 October 2015	O1	6	2.12	19.5	114	83.5	4	fail	n/a	Not re-tested as part of roadway			

Figure 2: Summary of Field Density Test Results

Project:		Little Green Estate			Coffey Job #:		GEOTABTF09878AA					
Client:		SPIIRE / PEET			Period:		April 2015- May 2016					
Test	Retest	Date	Location	Layer	Field	Field	Hilf	Moisture	Moisture	Pass	Retest	Comment
	of Test				Wet	Moisture	Density	Ratio	Variation	/		
			Grid		Density	Content	Ratio		of OMC	Fail		
#	#		Reference	#	(t/m3)	(%)	(%)	(%)	(%)		#	
166		Thursday, 29 October 2015	O1 (Centre)	7	2.08	24	104.5	98.5	0.5	Pass		
167	164	Thursday, 29 October 2015	O1 (East)	7	2.14	24	109	90.5	2.5 dry	Pass		
168		Thursday, 29 October 2015	N1 (NE)	7	2.03	21.5	103	112	2.5 wet	Pass		
169		Friday, 30 October 2015	O1 (NE)	7	2.07	20.5	109	90.5	2.0 dry	Pass		
170		Friday, 30 October 2015	N1 (Centre)	7	2.02	27.5	109	92	2.5 dry	Pass		
171		Friday, 30 October 2015	O2 (SW)	8	1.93	29.5	102	98	0.5 dry	Pass		
172		Tuesday, 10 November 2015	O2 (East)	7	1.93	22.5	98	99.5	0	Pass		
173		Tuesday, 10 November 2015	M1 (N)	6	1.95	23	97.5	101.5	0.5 wet	Pass		
174		Thursday, 12 November 2015	M2 (Centre)	6	1.94	25.5	102	101	0	Pass		
175		Friday, 13 November 2015	K1	6	1.92	27.5	98	99.5	0	Pass		
176		Friday, 13 November 2015	K2	6	2.04	28	102	91.5	2.5 dry	Pass		
177		Tuesday, 17 November 2015	K1 (W)	6	2.02	25	103	98	0.5 dry	Pass		
178		Thursday, 19 November 2015	K2	6	2	26.5	100	101.5	0.5 wet	Pass		
179		Thursday, 19 November 2015	J2	6	1.92	34	100	110.5	3.0 wet	Pass		
180		Sunday, 22 November 2015	J1	6	1.97	28	100.5	101.5	0.5 wet	Pass		
181		Friday, 27 November 2015	I2 (S)	4	1.93	24	100	92.5	2.0 dry	Pass		
182		Thursday, 31 March 2016	J2	7	1.93	18.3	104	88.5	-2.5	Pass		
183		Thursday, 31 March 2016	J1	7	1.86	20.8	108	81.5	-4.5	Fail	191	
184		Thursday, 31 March 2016	I1	5	1.85	12.8	104	66.5	-6.5	Fail	192	
185		Thursday, 31 March 2016	I2	5	1.82	16.8	100.5	79.5	-4.5	Fail	193	
186		Tuesday, 5 April 2016	G2	4	1.88	21.5	98.5	90	-2	Pass		
187		Tuesday, 5 April 2016	G1	4	1.84	15	96	76	-4.5	Fail	188	
188	187	Friday, 8 April 2016	H1	4	1.95	21.2	99.5	100	0	Pass		
189		Friday, 8 April 2016	H2	5	1.92	22.2	98	99.5	0	Pass		
190		Friday, 8 April 2016	H1	5	1.89	24.6	97	100	0	Pass		
191	183	Monday, 16 May 2016	J1	7	2.04	22.7	102	106.5	1.5 wet	Pass		
192	184	Monday, 16 May 2016	I1	5	2.11	27.8	106.5	113.5	3.0 wet	Pass		
193	185	Monday, 16 May 2016	I2	5	1.99	27.4	100	112	3.0 wet	Pass		

Appendix A - Laboratory Results

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
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Report No: HDR:ABTM15W00467
Issue No: 3
This report replaces all previous issues of report no 'HDR:ABTM15W00467'.

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) P.O. Box 40 Kew VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00385AA
Project Name:	GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.:	TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 13/05/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	Submitted by Client
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-01544	ABTM15S-01545
Field Sample ID	1	2
Date Tested	4/05/2015	4/05/2015
Time Tested	14:50	15:05
Location	Stage 1	Stage 1
	Grid - O1	Grid - N1
	Layer 1	Layer 1
Field and Laboratory Data		
Depth of Test (mm)	175	175
Depth of Layer (mm)	200	200
AS Sieve Size (mm)	19.0	19.0
Oversize Wet (%)	0	0
Field Moisture Content (%)	23.5	21.0
Field Wet Density (t/m³)	1.79	1.87
Field Dry Density (t/m³)	1.45	1.55
Peak Converted Wet Density* (t/m³)	1.87	2.01
Optimum Moisture Content (%)	27.5	23.0
Compactive Effort	Standard	Standard
Moisture Ratio (%)	85.0	91.5
Moisture Variation (%)	4.0 dry	2.0 dry
Hilf Density Ratio (%)	96.0	93.5
legend * adjusted for oversize material		

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
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Report No: HDR:ABTM15W00479
Issue No: 4
This report replaces all previous issues of report no 'HDR:ABTM15W00479'.

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) P.O. Box 40 Kew VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00385AA
Project Name:	GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.:	TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 13/05/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	Submitted by client
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-01565	ABTM15S-01566
Field Sample ID	#3	#4
Date Tested	6/05/2015	6/05/2015
Time Tested	14:00	14:15
Location	Grid Area N2	Grid Area N3
	Layer 1	Layer 1

Field and Laboratory Data

Depth of Test (mm)	175	175
Depth of Layer (mm)	200	200
Field Moisture Content (%)	27.0	24.5
Field Wet Density (t/m³)	1.81	1.73
Field Dry Density (t/m³)	1.43	1.39
Peak Converted Wet Density* (t/m³)	1.94	1.86
Optimum Moisture Content (%)	26.5	28.5
Compactive Effort	Standard	Standard
Moisture Ratio (%)	101.5	85.5
Moisture Variation (%)	0.5 wet	4.0 dry
Hilf Density Ratio (%)	93.0	93.0
legend * adjusted for oversize material		

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
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Report No: HDR:ABTM15W00498
Issue No: 3
This report replaces all previous issues of report no 'HDR:ABTM15W00498'.

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 13/05/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-01622	ABTM15S-01623	ABTM15S-01624
Field Sample ID	5	6	7
Date Tested	9/05/2015	9/05/2015	9/05/2015
Time Tested	11:15	11:30	11:45
Location	Little Green Estate	Little Green Estate	Little Green Estate
	Grid L3	Grid L2	Grid O1
	Layer 1	Layer 1	Layer 1
			Retest of No 1
Field and Laboratory Data			
Depth of Test (mm)	175	175	175
Depth of Layer (mm)	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0
Oversize Wet (%)	0	0	0
Field Moisture Content (%)	32.0	33.0	18.5
Field Wet Density (t/m³)	1.90	1.86	1.99
Field Dry Density (t/m³)	1.44	1.40	1.68
Peak Converted Wet Density* (t/m³)	1.94	1.91	1.86
Optimum Moisture Content (%)	27.5	28.5	23.5
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	116.5	115.0	78.5
Moisture Variation (%)	4.5 wet	4.0 wet	5.0 dry
Hilf Density Ratio (%)	98.5	98.0	106.5
legend * adjusted for oversize material			

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W00500
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 12/05/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-01655	ABTM15S-01656	ABTM15S-01657
Field Sample ID	8	9	10
Date Tested	11/05/2015	11/05/2015	11/05/2015
Time Tested	11:10	15:25	15:40
Location	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - N2	Grid - N3	Grid - O1
	Retest of Number 3	Retest of Number 4	Retest of Number 7

Field and Laboratory Data

Depth of Test (mm)	175	175	175
Depth of Layer (mm)	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0
Oversize Wet (%)	0	0	0
Field Moisture Content (%)	24.5	24.5	19.5
Field Wet Density (t/m³)	1.97	1.86	1.98
Field Dry Density (t/m³)	1.58	1.50	1.66
Peak Converted Wet Density* (t/m³)	1.98	1.94	2.02
Optimum Moisture Content (%)	24.0	25.0	20.0
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	102.5	97.5	99.0
Moisture Variation (%)	0.5 wet	0.5 dry	0.0
Hilf Density Ratio (%)	99.5	96.0	98.0
legend * adjusted for oversize material			

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W00502
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 13/05/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-01661	ABTM15S-01662	ABTM15S-01663
Field Sample ID	11	12	13
Date Tested	12/05/2015	12/05/2015	12/05/2015
Time Tested	08:30	13:20	13:40
Location	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - N1	Grid - M3	Grid - O1
	Layer 1	Layer 1	Layer 2
	Retest of No 2		

Field and Laboratory Data

Depth of Test (mm)	175	175	175
Depth of Layer (mm)	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0
Oversize Wet (%)	0	0	0
Field Moisture Content (%)	26.0	25.5	26.5
Field Wet Density (t/m³)	1.83	1.87	1.93
Field Dry Density (t/m³)	1.45	1.49	1.53
Peak Converted Wet Density* (t/m³)	1.92	1.95	1.97
Optimum Moisture Content (%)	26.0	26.0	26.0
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	99.0	98.5	101.5
Moisture Variation (%)	0.5 dry	0.5 dry	0.5 wet
Hilf Density Ratio (%)	95.0	96.0	98.0
legend * adjusted for oversize material			

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
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Report No: HDR:ABTM15W00506
Issue No: 2
This report replaces all previous issues of report no 'HDR:ABTM15W00506'.

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 14/05/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	Submitted by Client
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-01673	ABTM15S-01674	ABTM15S-01675	ABTM15S-01676
Field Sample ID	14	15	16	17
Date Tested	13/05/2015	13/05/2015	13/05/2015	13/05/2015
Time Tested	15:00	15:15	15:30	15:50
Location	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - M1	Grid - M2	Grid - N2	Grid - N3
	Layer 1	Layer 1	Layer 2	Layer 2
Field and Laboratory Data				
Depth of Test (mm)	175	175	175	175
Depth of Layer (mm)	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0
Field Moisture Content (%)	22.0	24.5	22.0	32.0
Field Wet Density (t/m³)	1.90	1.96	1.99	1.88
Field Dry Density (t/m³)	1.56	1.57	1.63	1.43
Peak Converted Wet Density* (t/m³)	1.89	1.93	1.93	1.89
Optimum Moisture Content (%)	24.0	25.0	22.0	30.5
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	91.0	99.0	98.5	105.5
Moisture Variation (%)	2.0 dry	0.0	0.5 dry	1.5 wet
Hilf Density Ratio (%)	100.5	101.5	103.0	99.5
legend * adjusted for oversize material				

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W00508
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 15/05/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-01681	ABTM15S-01682	ABTM15S-01683	ABTM15S-01684
Field Sample ID	18	19	20	21
Date Tested	14/05/2015	14/05/2015	14/05/2015	14/05/2015
Time Tested	14:15	14:30	14:45	15:00
Location	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - L1	Grid - L2	Grid - L3	Grid - N1
	Layer 1	Layer 1	Layer 1	Layer 2
		Re-Test of No 6	Re-Test of No 5	

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175
Depth of Layer (mm)	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0
Field Moisture Content (%)	23.5	24.5	20.0	28.5
Field Wet Density (t/m³)	1.97	1.96	2.00	1.86
Field Dry Density (t/m³)	1.60	1.58	1.67	1.44
Peak Converted Wet Density* (t/m³)	2.01	2.01	1.95	1.89
Optimum Moisture Content (%)	24.0	24.5	21.5	28.5
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	98.0	99.5	91.5	100.0
Moisture Variation (%)	0.5 dry	0.0	2.0 dry	0.0
Hilf Density Ratio (%)	98.0	97.5	102.5	98.0
legend * adjusted for oversize material				

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Fax: +61 3 8413 6999

Report No: HDR:ABTM15W00514
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 19/05/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-01713	ABTM15S-01714	ABTM15S-01715	ABTM15S-01716	ABTM15S-01717
Field Sample ID	22	23	24	25	26
Date Tested	18/05/2015	18/05/2015	18/05/2015	18/05/2015	18/05/2015
Time Tested	14:30	14:45	15:00	15:15	15:30
Location	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - K1	Grid - K2	Grid - K3	Grid - M2	Grid - M1
	Layer 1	Layer 1	Layer 1	Layer 2	Layer 2
Field and Laboratory Data					
Depth of Test (mm)	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0
Field Moisture Content (%)	27.5	25.0	21.0	29.5	26.0
Field Wet Density (t/m³)	1.96	1.91	1.92	2.01	1.93
Field Dry Density (t/m³)	1.53	1.52	1.58	1.55	1.53
Peak Converted Wet Density* (t/m³)	1.93	1.91	1.90	1.93	1.93
Optimum Moisture Content (%)	28.0	25.0	23.5	29.5	26.0
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	99.5	99.5	90.0	100.0	100.0
Moisture Variation (%)	0.0	0.0	2.0 dry	0.0	0.0
Hilf Density Ratio (%)	101.0	99.5	101.0	104.0	100.0
legend * adjusted for oversize material					

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W00532
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 21/05/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-01783	ABTM15S-01784	ABTM15S-01785	ABTM15S-01786
Field Sample ID	27	28	29	30
Date Tested	20/05/2015	20/05/2015	20/05/2015	20/05/2015
Time Tested	11:45	12:00	12:15	12:30
Location	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - J1	Grid - J2	Grid - J3	Grid - M3
	Layer 1	Layer 1	Layer 1	Layer 2
Field and Laboratory Data				
Depth of Test (mm)	175	175	175	175
Depth of Layer (mm)	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	14	10	13	
Field Moisture Content (%)	19.0	25.5	25.0	23.5
Field Wet Density (t/m³)	1.84	1.83	1.79	1.96
Field Dry Density (t/m³)	1.55	1.46	1.43	1.58
Peak Converted Wet Density* (t/m³)	1.99	2.03	2.01	1.99
Optimum Moisture Content (%)	21.5	25.5	24.5	23.0
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	87.5	100.0	101.5	101.5
Moisture Variation (%)	2.5 dry	0.0	0.5 wet	0.5 wet
Hilf Density Ratio (%)	92.5	90.5	88.5	98.0
legend * adjusted for oversize material				

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W00537
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 22/05/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	Submitted by Client
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-01794	ABTM15S-01795	ABTM15S-01796
Field Sample ID	31	32	33
Date Tested	21/05/2015	21/05/2015	21/05/2015
Time Tested	11:30	12:10	12:40
Location	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - J1	Grid - J2	Grid - J3
	Layer 1	Layer 1	Layer 1
	Retest of No 27	Retest of No 28	Retest of No 29
Field and Laboratory Data			
Depth of Test (mm)	175	175	175
Depth of Layer (mm)	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0
Oversize Wet (%)	13	13	12
Field Moisture Content (%)	25.5	19.0	22.5
Field Wet Density (t/m³)	1.91	1.85	1.77
Field Dry Density (t/m³)	1.52	1.55	1.44
Peak Converted Wet Density* (t/m³)	2.02	2.00	1.98
Optimum Moisture Content (%)	25.5	22.5	25.0
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	100.0	85.5	91.0
Moisture Variation (%)	0.0	2.5 dry	2.0 dry
Hilf Density Ratio (%)	94.5	92.5	89.5
legend * adjusted for oversize material			

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W00543
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

NATA
WORLD RECOGNISED ACCREDITATION

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 26/05/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	Submitted by Client
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-01807	ABTM15S-01808	ABTM15S-01809	ABTM15S-01810
Field Sample ID	34	35	36	37
Date Tested	25/05/2015	25/05/2015	25/05/2015	25/05/2015
Time Tested	12:15	12:30	12:45	15:50
Location	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - L3	Grid - L2	Grid - L1	Grid - O1
	Layer 2	Layer 2	Layer 2	Layer 3
Field and Laboratory Data				
Depth of Test (mm)	175	175	175	175
Depth of Layer (mm)	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	5	5	0	3
Field Moisture Content (%)	25.0	25.0	29.0	19.5
Field Wet Density (t/m³)	2.04	1.98	1.91	1.94
Field Dry Density (t/m³)	1.63	1.58	1.48	1.63
Peak Converted Wet Density* (t/m³)	2.02	1.99	1.93	1.91
Optimum Moisture Content (%)	25.5	25.0	27.0	22.0
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	99.5	100.5	107.0	88.0
Moisture Variation (%)	0.0	0.0	2.0 wet	2.5 dry
Hilf Density Ratio (%)	101.0	99.5	98.5	102.0
legend * adjusted for oversize material				

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W00548
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 27/05/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-01818	ABTM15S-01819	ABTM15S-01820	ABTM15S-01821	ABTM15S-01822	ABTM15S-01823
Field Sample ID	38	39	40	41	42	43
Date Tested	26/05/2015	26/05/2015	26/05/2015	26/05/2015	26/05/2015	26/05/2015
Time Tested	09:15	09:30	09:45	15:20	15:35	15:50
Location	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - J1	Grid - J2	Grid - J3	Grid - I3	Grid - I2	Grid - I1
	Layer 1	Layer 1	Layer 1	Layer 1	Layer 1	Layer 1
	Retest of No 31	Retest of No 32	Retest of No 33			
Field and Laboratory Data						
Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	5	10	4	0	0	0
Field Moisture Content (%)	25.0	25.0	26.5	28.0	28.5	27.0
Field Wet Density (t/m³)	1.95	2.15	1.94	1.86	1.84	1.83
Field Dry Density (t/m³)	1.56	1.71	1.53	1.45	1.43	1.44
Peak Converted Wet Density* (t/m³)	1.98	2.05	1.99	1.95	1.96	1.97
Optimum Moisture Content (%)	25.0	25.5	26.5	28.5	28.5	27.5
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	99.5	99.5	99.5	99.0	100.0	99.5
Moisture Variation (%)	0.0	0.0	0.0	0.0	0.0	0.0
Hilf Density Ratio (%)	98.0	105.0	97.5	95.0	93.5	92.5
legend * adjusted for oversize material						

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
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Report No: HDR:ABTM15W00550
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 28/05/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-01839	ABTM15S-01840	ABTM15S-01841	ABTM15S-01842	ABTM15S-01843
Field Sample ID	44	45	46	47	48
Date Tested	27/05/2015	27/05/2015	27/05/2015	27/05/2015	27/05/2015
Time Tested	11:25	11:40	13:40	14:00	14:15
Location	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - I1	Grid - I2	Grid - K1	Grid - K2	Grid - K3
	Layer 1	Layer 1	Layer 2	Layer 2	Layer 2
	Retest of No 43	Retest of No 42			
Field and Laboratory Data					
Depth of Test (mm)	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	14	9	5	11	15
Field Moisture Content (%)	24.0	25.5	20.5	20.0	24.5
Field Wet Density (t/m³)	1.98	1.99	1.92	2.02	1.96
Field Dry Density (t/m³)	1.60	1.58	1.59	1.68	1.58
Peak Converted Wet Density* (t/m³)	1.97	1.99	2.00	1.99	2.07
Optimum Moisture Content (%)	26.5	25.0	20.5	22.0	24.5
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	90.5	100.5	100.5	92.0	100.5
Moisture Variation (%)	2.0 dry	0.0	0.0	1.5 dry	0.0
Hilf Density Ratio (%)	101.0	99.5	96.0	101.5	95.0
legend * adjusted for oversize material					

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
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Report No: HDR:ABTM15W00551
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 29/05/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-01845	ABTM15S-01846	ABTM15S-01847	ABTM15S-01848	ABTM15S-01849	ABTM15S-01850
Field Sample ID	49	50	51	52	53	54
Date Tested	28/05/2015	28/05/2015	28/05/2015	28/05/2015	28/05/2015	28/05/2015
Time Tested	12:25	12:45	13:10	14:15	14:30	14:45
Location	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - H1	Grid - H2	Grid - H3	Grid - J1	Grid - J2	Grid - J3
	Layer 1	Layer 1	Layer 1	Layer 2	Layer 2	Layer 2
Field and Laboratory Data						
Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0
Field Moisture Content (%)	20.0	21.5	21.5	20.5	23.5	21.5
Field Wet Density (t/m³)	1.86	1.97	1.96	1.90	2.03	1.93
Field Dry Density (t/m³)	1.55	1.62	1.61	1.58	1.65	1.59
Peak Converted Wet Density* (t/m³)	1.95	1.99	1.98	1.99	2.02	1.99
Optimum Moisture Content (%)	23.0	21.0	22.0	20.0	23.5	21.5
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	87.0	101.0	99.5	101.0	100.5	98.0
Moisture Variation (%)	3.0 dry	0.0	0.0	0.0	0.0	0.5 dry
Hilf Density Ratio (%)	95.0	99.0	99.0	95.5	100.5	97.0
legend * adjusted for oversize material						

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W00554
Issue No: 3
This report replaces all previous issues of report no 'HDR:ABTM15W00554'.

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 1/06/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-01856	ABTM15S-01857	ABTM15S-01858
Field Sample ID	55	56	57
Date Tested	29/05/2015	29/05/2015	29/05/2015
Location	Grid - G1	Grid - G2	Grid - G3
	Layer 1	Layer 1	Layer 1
Field and Laboratory Data			
Depth of Test (mm)	175	175	175
Depth of Layer (mm)	200	200	200
Oversize Wet (%)	8	5	12
Field Moisture Content (%)	22.5	24.0	24.5
Field Wet Density (t/m³)	1.84	1.90	1.86
Field Dry Density (t/m³)	1.50	1.53	1.49
Peak Converted Wet Density* (t/m³)	1.89	1.88	1.94
Optimum Moisture Content (%)	25.5	26.0	24.5
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	89.0	92.0	100.0
Moisture Variation (%)	2.5 dry	2.0 dry	0.0
Hilf Density Ratio (%)	97.0	100.5	95.5
legend * adjusted for oversize material			

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Fax: +61 3 8413 6999

Report No: HDR:ABTM15W00555
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 1/06/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-01859	ABTM15S-01860	ABTM15S-01861
Field Sample ID	58	59	60
Date Tested	30/05/2015	30/05/2015	30/05/2015
Time Tested	12:01	12:15	12:30
Location	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - I1	Grid - I2	Grid - I3
	Layer 2	Layer 2	Layer 2
Field and Laboratory Data			
Depth of Test (mm)	175	175	175
Depth of Layer (mm)	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0
Oversize Wet (%)	0	0	0
Field Moisture Content (%)	23.0	24.5	24.5
Field Wet Density (t/m³)	1.84	2.02	1.84
Field Dry Density (t/m³)	1.49	1.63	1.47
Peak Converted Wet Density* (t/m³)	1.93	2.01	1.96
Optimum Moisture Content (%)	25.0	24.5	25.0
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	92.0	99.5	98.5
Moisture Variation (%)	2.0 dry	0.0	0.5 dry
Hilf Density Ratio (%)	95.5	100.5	93.5
legend * adjusted for oversize material			

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W00570
Issue No: 2
This report replaces all previous issues of report no 'HDR:ABTM15W00570'.

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

K.B. Patel

Approved Signatory: Krushik Patel
(Senior Technician)
NATA Accredited Laboratory Number:431
Date of Issue: 3/06/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction (as advised by client) Moisture Variation -3 to +3 of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	General Fill

Sample Data

Sample ID	ABTM15S-01907	ABTM15S-01908	ABTM15S-01909	ABTM15S-01910
Field Sample ID	00061	00062	00063	00064
Date Tested	2/06/2015	2/06/2015	2/06/2015	2/06/2015
Location	Grid N3	Grid N2	Grid N1	Grid N3
	Layer 3	Layer 3	Layer 3	Layer 3
Field and Laboratory Data				
Depth of Test (mm)	275	275	275	275
Depth of Layer (mm)	300	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	11	5	11	9
Field Moisture Content (%)	24.5	19.5	22.0	18.0
Field Wet Density (t/m³)	2.08	1.96	2.09	2.01
Field Dry Density (t/m³)	1.67	1.64	1.72	1.71
Peak Converted Wet Density* (t/m³)	2.00	1.93	2.03	1.97
Optimum Moisture Content (%)	24.0	22.0	22.0	20.5
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	100.5	88.5	100.5	87.0
Moisture Variation (%)	0.0	2.5 dry	0.0	2.5 dry
Hilf Density Ratio (%)	104.0	101.5	103.5	102.0
legend * adjusted for oversize material				

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W00570
Issue No: 2
This report replaces all previous issues of report no 'HDR:ABTM15W00570'.

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

K.B. Patel

Approved Signatory: Krushik Patel
(Senior Technician)
NATA Accredited Laboratory Number:431
Date of Issue: 3/06/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction (as advised by client) Moisture Variation -3 to +3 of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	General Fill

Sample Data

Sample ID	ABTM15S-01911	ABTM15S-01912	ABTM15S-01913	ABTM15S-01914
Field Sample ID	00065	00066	00067	00068
Date Tested	2/06/2015	2/06/2015	2/06/2015	2/06/2015
Location	Grid M1	Grid M2	Grid M2	Grid M3
	Layer 3	Layer 3	Layer 3	Layer 3
Field and Laboratory Data				
Depth of Test (mm)	275	275	275	275
Depth of Layer (mm)	300	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	11	6	9	4
Field Moisture Content (%)	21.5	24.5	19.5	25.5
Field Wet Density (t/m³)	1.96	1.91	1.93	1.84
Field Dry Density (t/m³)	1.61	1.54	1.61	1.47
Peak Converted Wet Density* (t/m³)	1.97	1.95	1.94	1.92
Optimum Moisture Content (%)	23.0	27.0	22.0	27.5
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	92.5	91.0	90.0	94.0
Moisture Variation (%)	1.5 dry	2.0 dry	2.0 dry	1.5 dry
Hilf Density Ratio (%)	99.5	98.5	99.5	96.0
legend * adjusted for oversize material				

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W00571
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 4/06/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	Submitted by Client
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-01915	ABTM15S-01916	ABTM15S-01917	ABTM15S-01918
Field Sample ID	69	70	71	72
Date Tested	3/06/2015	3/06/2015	3/06/2015	3/06/2015
Time Tested	13:45	14:30	14:45	15:00
Location	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - I3	Grid - H3	Grid - H2	Grid - H1
	Layer 2	Layer 2	Layer 2	Layer 2
	Retest of No 60			
Field and Laboratory Data				
Depth of Test (mm)	175	175	175	175
Depth of Layer (mm)	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	6	7	7	10
Field Moisture Content (%)	23.0	20.5	23.0	22.5
Field Wet Density (t/m³)	1.99	1.90	1.92	2.00
Field Dry Density (t/m³)	1.62	1.58	1.56	1.63
Peak Converted Wet Density* (t/m³)	1.99	1.95	2.00	2.02
Optimum Moisture Content (%)	22.5	22.5	23.0	22.5
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	100.5	89.5	101.0	101.0
Moisture Variation (%)	0.0	2.0 dry	0.0	0.0
Hilf Density Ratio (%)	100.0	97.0	95.5	99.0
legend * adjusted for oversize material				

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W00577
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 5/06/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	Submitted by Client
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-01924	ABTM15S-01925
Field Sample ID	73	74
Date Tested	4/06/2015	4/06/2015
Time Tested	11:35	11:50
Location	Little Green Estate	Little Green Estate
	Dam - Grid H4	Dam - Grid I4
	Layer 1	Layer 1

Field and Laboratory Data

Depth of Test (mm)	275	275
Depth of Layer (mm)	300	300
AS Sieve Size (mm)	19.0	19.0
Oversize Wet (%)	3	11
Field Moisture Content (%)	24.5	19.0
Field Wet Density (t/m³)	1.81	2.02
Field Dry Density (t/m³)	1.46	1.69
Peak Converted Wet Density* (t/m³)	1.82	2.10
Optimum Moisture Content (%)	28.5	19.5
Compactive Effort	Standard	Standard
Moisture Ratio (%)	86.0	99.0
Moisture Variation (%)	3.5 dry	0.0
Hilf Density Ratio (%)	99.5	96.0
legend * adjusted for oversize material		

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W00591
Issue No: 3
This report replaces all previous issues of report no 'HDR:ABTM15W00591'.

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 24/06/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO of 95% of Standard Compaction; ±3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	Submitted by Client
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-01954	ABTM15S-01955	ABTM15S-01956	ABTM15S-01957		
Field Sample ID	75	76	77	78		
Date Tested	10/06/2015	10/06/2015	10/06/2015	10/06/2015		
Time Tested	12:45	13:00	13:15	13:30		
Location	Grid- G3	Grid- G2	Grid- G1	Dam-Grid-H4		
	Layer 2	Layer 2	Layer 2	Layer 1		
				Re-test of 73		
Field and Laboratory Data						
Depth of Test (mm)	175	175	175	275		
Depth of Layer (mm)	200	200	200	300		
Field Moisture Content (%)	17.5	21.0	20.0	25.0		
Field Wet Density (t/m³)	1.95	1.96	1.88	1.74		
Field Dry Density (t/m³)	1.66	1.62	1.56	1.40		
Peak Converted Wet Density* (t/m³)	1.99	1.90	1.87	1.82		
Optimum Moisture Content (%)	19.5	24.0	23.5	28.0		
Compactive Effort	Standard	Standard	Standard	Standard		
Moisture Ratio (%)	90.5	87.0	87.0	89.5		
Moisture Variation (%)	2.0 dry	3.0 dry	3.0 dry	3.0 dry		
Hilf Density Ratio (%)	98.0	103.0	100.0	96.0		
legend * adjusted for oversize material						

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W00593
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 15/06/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-01960	ABTM15S-01961	ABTM15S-01962	ABTM15S-01963	ABTM15S-01964
Field Sample ID	79	80	81	82	83
Client Sample ID	Grid K4	Grid J4	Grid 14	Grid H4	Grid 14
Date Tested	12/06/2015	12/06/2015	12/06/2015	12/06/2015	12/06/2015
Time Tested	14:50	15:15	15:30	15:45	16:00
Location	Grid K4	Grid J4	Grid 14	Grid H4	Grid 14
	Layer 1	Layer 1	Layer 1	Layer 2	Layer 2
			Between Dams	Dam	Dam
Field and Laboratory Data					
Depth of Test (mm)	175	175	175	275	275
Depth of Layer (mm)	200	200	200	300	300
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	7	9	7	0	0
Field Moisture Content (%)	21.5	22.5	16.5	28.0	31.0
Field Wet Density (t/m³)	1.86	1.84	2.16	1.98	1.86
Field Dry Density (t/m³)	1.53	1.50	1.85	1.55	1.42
Peak Converted Wet Density* (t/m³)	1.90	1.99	2.14	1.83	1.75
Optimum Moisture Content (%)	25.5	23.0	16.5	30.5	35.0
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	84.0	98.0	102.0	92.0	89.0
Moisture Variation (%)	3.5 dry	0.5 dry	0.5 wet	2.5 dry	3.5 dry
Hilf Density Ratio (%)	98.0	92.5	101.0	108.5	106.5
legend * adjusted for oversize material					

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W00595
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 16/06/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-01973	ABTM15S-01974	ABTM15S-01975
Field Sample ID	84	85	86
Date Tested	15/06/2015	15/06/2015	15/06/2015
Time Tested	10:15	10:30	10:45
Location	Grid K4	Grid J4	Dam-14
	Layer 1	Layer 1	Layer 2
	Retest of No 79	Retest of No 80	Retest of No 83

Field and Laboratory Data

Depth of Test (mm)	175	175	275
Depth of Layer (mm)	200	200	300
Oversize Wet (%)	10	3	6
Field Moisture Content (%)	22.0	22.0	29.5
Field Wet Density (t/m³)	1.98	1.94	1.80
Field Dry Density (t/m³)	1.62	1.59	1.39
Peak Converted Wet Density* (t/m³)	1.99	2.01	1.87
Optimum Moisture Content (%)	22.5	22.5	32.0
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	97.5	99.5	92.0
Moisture Variation (%)	0.5 dry	0.0	2.5 dry
Hilf Density Ratio (%)	99.0	96.5	96.5
legend * adjusted for oversize material			

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W00601
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 18/06/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-01990	ABTM15S-01991	ABTM15S-01992
Field Sample ID	87	88	89
Date Tested	17/06/2015	17/06/2015	17/06/2015
Time Tested	12:15	12:30	12:50
Location	Dam Grid H4	Grid I4	Dam I4
	Layer 3	Layer 2	Layer 3
Field and Laboratory Data			
Depth of Test (mm)	275	275	275
Depth of Layer (mm)	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0
Oversize Wet (%)	0	3	0
Field Moisture Content (%)	26.0	23.5	19.0
Field Wet Density (t/m³)	1.86	1.96	1.84
Field Dry Density (t/m³)	1.47	1.59	1.54
Peak Converted Wet Density* (t/m³)	1.92	1.98	1.89
Optimum Moisture Content (%)	27.0	26.0	21.5
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	96.5	91.5	88.5
Moisture Variation (%)	1.0 dry	2.0 dry	2.5 dry
Hilf Density Ratio (%)	97.0	99.0	97.5
legend * adjusted for oversize material			

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W00616

Preliminary Report Issued - Issue No.:1 Issue No: 2

This report replaces all previous issues of report no 'HDR:ABTM15W00616'.

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

NATA WORLD RECOGNISED ACCREDITATION

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 23/06/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-02080	ABTM15S-02081	ABTM15S-02082	ABTM15S-02083	ABTM15S-02084	ABTM15S-02085
Field Sample ID	90	91	92	93	94	95
Date Tested	22/06/2015	22/06/2015	22/06/2015	22/06/2015	22/06/2015	22/06/2015
Location	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - L3	Grid - L2	Grid - L2	Grid - L1	Grid - K1	Grid - K2
	Layer 3	Layer 3	Layer 3	Layer 3	Layer 3	Layer 3
Field and Laboratory Data						
Depth of Test (mm)	275	275	275	275	275	275
Depth of Layer (mm)	300	300	300	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	3	0	2	0	0	0
Field Moisture Content (%)	22.5	24.5	25.5	21.5	26.0	26.0
Field Wet Density (t/m³)	2.00	2.02	1.93	1.83	1.75	2.08
Field Dry Density (t/m³)	1.64	1.62	1.54	1.50	1.39	1.65
Peak Converted Wet Density* (t/m³)	1.94	2.02	1.95	1.90	1.81	2.00
Optimum Moisture Content (%)	25.0	24.0	26.5	24.5	29.0	26.5
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	89.5	101.5	97.0	87.5	89.0	98.0
Moisture Variation (%)	2.5 dry	0.5 wet	0.5 dry	3.0 dry	3.0 dry	0.5 dry
Hilf Density Ratio (%)	103.0	100.0	99.0	96.0	96.5	104.0
legend * adjusted for oversize material						

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W00616

Preliminary Report Issued - Issue No.:1 Issue No: 2

This report replaces all previous issues of report no 'HDR:ABTM15W00616'.

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

NATA
WORLD RECOGNISED ACCREDITATION

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 23/06/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-02086	ABTM15S-02087	ABTM15S-02088	ABTM15S-02089	ABTM15S-02090	
Field Sample ID	96	97	98	99	100	
Date Tested	22/06/2015	22/06/2015	22/06/2015	22/06/2015	22/06/2015	
Location	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	
	Grid - K2	Grid - K3	Grid - M3	Grid - M3	Grid - N3	
	Layer 3	Layer 3	Layer 4	Layer 4	Layer 4	
Field and Laboratory Data						
Depth of Test (mm)	275	275	275	275	275	
Depth of Layer (mm)	300	300	300	300	300	
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	
Oversize Wet (%)	3	2	4	4	4	
Field Moisture Content (%)	22.0	21.5	23.5	25.0	27.5	
Field Wet Density (t/m³)	1.90	2.02	1.81	1.81	1.94	
Field Dry Density (t/m³)	1.56	1.66	1.47	1.45	1.52	
Peak Converted Wet Density* (t/m³)	1.95	2.05	1.91	1.91	1.97	
Optimum Moisture Content (%)	24.5	22.0	24.5	26.0	28.0	
Compactive Effort	Standard	Standard	Standard	Standard	Standard	
Moisture Ratio (%)	91.0	97.5	96.5	96.0	98.5	
Moisture Variation (%)	2.0 dry	0.5 dry	1.0 dry	1.0 dry	0.5 dry	
Hilf Density Ratio (%)	97.5	98.5	95.0	95.0	99.0	
legend * adjusted for oversize material						

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
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Report No: HDR:ABTM15W00618
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 24/06/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-02099	ABTM15S-02100	ABTM15S-02101	ABTM15S-02102	ABTM15S-02103	ABTM15S-02104
Field Sample ID	101	102	103	104	105	106
Date Tested	23/06/2015	23/06/2015	23/06/2015	23/06/2015	23/06/2015	23/06/2015
Time Tested	08:40	09:00	09:15	09:30	09:45	10:00
Location	Little Grenn Estate	Little Grenn Estate	Little Grenn Estate	Little Grenn Estate	Little Grenn Estate	Little Grenn Estate
	Grid - M2	Grid - M2	Grid - N2	Grid - N1	Grid - N1/M1	Grid - M1
	Layer 4	Layer 4	Layer 4	Layer 4	Layer 4	Layer 4
Field and Laboratory Data						
Depth of Test (mm)	275	275	275	275	275	275
Depth of Layer (mm)	300	300	300	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	1	0	2	2	2	0
Field Moisture Content (%)	25.5	22.0	23.5	17.0	23.0	21.5
Field Wet Density (t/m³)	1.91	1.74	1.98	1.85	1.81	1.76
Field Dry Density (t/m³)	1.52	1.43	1.60	1.58	1.47	1.45
Peak Converted Wet Density* (t/m³)	1.94	1.93	1.96	1.94	1.93	1.90
Optimum Moisture Content (%)	26.0	24.0	24.0	20.0	25.5	24.5
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	98.5	91.5	97.5	86.0	91.0	87.0
Moisture Variation (%)	0.5 dry	2.0 dry	0.5 dry	2.5 dry	2.0 dry	3.0 dry
Hilf Density Ratio (%)	98.5	90.0	101.0	95.5	94.0	92.5
legend * adjusted for oversize material						

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
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Report No: HDR:ABTM15W00618
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 24/06/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-02105	ABTM15S-02106	ABTM15S-02107	ABTM15S-02108		
Field Sample ID	107	108	109	110		
Date Tested	23/06/2015	23/06/2015	23/06/2015	23/06/2015		
Time Tested	11:20	11:50	12:20	12:40		
Location	Little Grenn Estate	Little Grenn Estate	Little Grenn Estate	Little Grenn Estate		
	Grid - O1	Grid - K4	Grid - J4	Grid - J4		
	Layer 4	Layer 2	Layer 2	Layer 2		
Field and Laboratory Data						
Depth of Test (mm)	275	275	275	275		
Depth of Layer (mm)	300	300	300	300		
AS Sieve Size (mm)	19.0	19.0	19.0	19.0		
Oversize Wet (%)	3	2	3	3		
Field Moisture Content (%)	20.5	17.5	22.5	15.0		
Field Wet Density (t/m³)	2.05	1.96	1.95	2.03		
Field Dry Density (t/m³)	1.70	1.66	1.59	1.76		
Peak Converted Wet Density* (t/m³)	2.03	1.94	1.95	2.02		
Optimum Moisture Content (%)	20.5	20.0	25.0	18.0		
Compactive Effort	Standard	Standard	Standard	Standard		
Moisture Ratio (%)	100.5	87.5	89.5	85.0		
Moisture Variation (%)	0.0	2.5 dry	2.5 dry	2.5 dry		
Hilf Density Ratio (%)	101.5	101.0	100.0	100.5		
legend * adjusted for oversize material						

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W00624
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 25/06/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-02131	ABTM15S-02132	ABTM15S-02133	ABTM15S-02134	ABTM15S-02135	ABTM15S-02136
Field Sample ID	111	112	113	114	115	116
Date Tested	24/06/2015	24/06/2015	24/06/2015	24/06/2015	24/06/2015	24/06/2015
Time Tested	11:15	11:30	11:45	12:00	12:15	12:30
Location	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - M2	Grid - M1	Grid - N1/M1	Dam - Grid - I4	Grid - I4	Dam - Grid - H4
	Layer 4	Layer 4	Layer 4	Layer 4	Between Dams	Layer 4
	Retest of No 102	Retest of No 106	Retest of No 105		Layer 3	
Field and Laboratory Data						
Depth of Test (mm)	275	275	275	275	275	275
Depth of Layer (mm)	300	300	300	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	3	0
Field Moisture Content (%)	25.0	20.0	22.5	20.5	20.0	21.5
Field Wet Density (t/m³)	1.90	1.86	1.99	1.96	2.03	1.95
Field Dry Density (t/m³)	1.52	1.55	1.63	1.63	1.69	1.60
Peak Converted Wet Density* (t/m³)	1.93	1.91	1.94	1.99	1.99	1.92
Optimum Moisture Content (%)	24.5	22.5	22.5	21.5	20.0	24.0
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	101.5	87.0	100.0	95.5	99.5	90.5
Moisture Variation (%)	0.5 wet	3.0 dry	0.0	1.0 dry	0.0	2.0 dry
Hilf Density Ratio (%)	98.5	97.0	103.0	98.5	102.0	101.0
legend * adjusted for oversize material						

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
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Abbotsford VIC 3067

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Report No: HDR:ABTM15W00645
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 26/06/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-02167	ABTM15S-02168	ABTM15S-02169	ABTM15S-02170	ABTM15S-02171	ABTM15S-02172
Field Sample ID	117	118	119	120	121	122
Date Tested	25/06/2015	25/06/2015	25/06/2015	25/06/2015	25/06/2015	25/06/2015
Time Tested	11:30	11:45	12:30	12:45	12:55	13:05
Location	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate
	Dam - I4	Dam - H4	Grid - L3	Grid - M3	Grid - M3/N3	Grid - N3
	Layer 5	Layer 5	Layer 4	Layer 5	Layer 5	Layer 5
Field and Laboratory Data						
Depth of Test (mm)	275	275	275	275	275	275
Depth of Layer (mm)	300	300	300	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	3	0	3	0	0	0
Field Moisture Content (%)	21.5	19.0	21.5	21.0	22.5	20.5
Field Wet Density (t/m³)	2.10	2.08	2.09	2.00	1.98	2.00
Field Dry Density (t/m³)	1.73	1.75	1.72	1.65	1.62	1.66
Peak Converted Wet Density* (t/m³)	2.06	2.06	2.04	1.95	1.97	1.99
Optimum Moisture Content (%)	24.0	21.5	22.0	22.0	23.0	21.0
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	89.5	88.5	96.0	96.5	97.0	97.0
Moisture Variation (%)	2.5 dry	2.5 dry	1.0 dry	1.0 dry	0.5 dry	0.5 dry
Hilf Density Ratio (%)	102.0	101.0	102.5	102.5	100.5	100.5
legend * adjusted for oversize material						

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W00645
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 26/06/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-02173	ABTM15S-02174	ABTM15S-02175	ABTM15S-02176	ABTM15S-02177	ABTM15S-02178
Field Sample ID	123	124	125	126	127	128
Date Tested	25/06/2015	25/06/2015	25/06/2015	25/06/2015	25/06/2015	25/06/2015
Time Tested	13:50	14:15	14:40	14:55	15:20	15:45
Location	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - J1	Grid - J2	Grid - J2	Grid - J3	Grid - H3/I3	Grid - H3
	Layer 3	Layer 3	Layer 3	Layer 3	Layer 3	Layer 3
Field and Laboratory Data						
Depth of Test (mm)	275	275	275	275	275	275
Depth of Layer (mm)	300	300	300	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	3	0	0
Field Moisture Content (%)	22.5	25.5	24.0	18.0	21.0	25.5
Field Wet Density (t/m³)	2.01	1.85	1.87	2.06	1.92	1.91
Field Dry Density (t/m³)	1.64	1.47	1.51	1.74	1.58	1.52
Peak Converted Wet Density* (t/m³)	2.00	1.89	1.92	2.07	2.00	1.98
Optimum Moisture Content (%)	23.5	26.0	24.0	21.5	23.5	26.0
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	97.0	98.5	98.5	85.0	89.5	98.0
Moisture Variation (%)	0.5 dry	0.5 dry	0.5 dry	3.0 dry	2.5 dry	0.5 dry
Hilf Density Ratio (%)	101.0	98.0	97.0	99.0	95.5	96.5
legend * adjusted for oversize material						

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
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ABN 92 114 364 046
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Report No: HDR:ABTM15W00651

Preliminary Report Issued - Issue No.:1 Issue No: 2

This report replaces all previous issues of report no 'HDR:ABTM15W00651'.

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

K.B. Patel

Approved Signatory: Krushik Patel
(Senior Technician)
NATA Accredited Laboratory Number:431
Date of Issue: 29/06/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-02193	ABTM15S-02194	ABTM15S-02195	ABTM15S-02196	ABTM15S-02197	ABTM15S-02198
Field Sample ID	129	130	131	132	133	134
Date Tested	26/06/2015	26/06/2015	26/06/2015	26/06/2015	26/06/2015	26/06/2015
Time Tested	12:20	12:40	12:50	13:05	14:30	15:00
Location	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - K3	Grid - K4	Grid - K4	Dam - I4	Grid - N2	Grid - N1
	Layer 4	Layer 3	Layer 3	Layer 6	Layer 5	Layer 5
Field and Laboratory Data						
Depth of Test (mm)	225	225	225	275	275	225
Depth of Layer (mm)	250	250	250	300	300	250
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0
Field Moisture Content (%)	16.5	18.5	18.5	22.5	19.5	19.5
Field Wet Density (t/m³)	1.89	1.93	1.87	1.95	1.94	2.01
Field Dry Density (t/m³)	1.62	1.62	1.58	1.59	1.62	1.68
Peak Converted Wet Density* (t/m³)	2.04	1.95	1.94	2.02	1.95	1.92
Optimum Moisture Content (%)	18.5	21.0	21.0	23.0	22.0	22.0
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	88.5	88.5	89.0	98.5	89.0	88.0
Moisture Variation (%)	2.0 dry	2.5 dry	2.5 dry	0.5 dry	2.5 dry	2.5 dry
Hilf Density Ratio (%)	93.0	99.0	96.5	97.0	99.0	104.5
legend * adjusted for oversize material						

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W00662
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 30/06/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-02247	ABTM15S-02248
Field Sample ID	135	136
Date Tested	29/06/2015	29/06/2015
Time Tested	12:01	15:23
Location	Little Green Estate	Little Green Estate
	Grid - K3	Grid - O1
	Layer 4	Layer 5
	Retest of no 129	

Field and Laboratory Data

Depth of Test (mm)	225	275
Depth of Layer (mm)	250	300
AS Sieve Size (mm)	19.0	19.0
Oversize Wet (%)	0	0
Field Moisture Content (%)	27.0	22.5
Field Wet Density (t/m³)	1.91	1.91
Field Dry Density (t/m³)	1.50	1.56
Peak Converted Wet Density* (t/m³)	1.95	1.94
Optimum Moisture Content (%)	26.5	25.0
Compactive Effort	Standard	Standard
Moisture Ratio (%)	101.0	89.5
Moisture Variation (%)	0.5 wet	2.5 dry
Hilf Density Ratio (%)	98.0	98.5
legend * adjusted for oversize material		

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W00665
Issue No: 2
This report replaces all previous issues of report no 'HDR:ABTM15W00665'.

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 1/07/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction (as advised by client) MC Variation +3 to -3
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	On Site
Material:	General Fill

Sample Data

Sample ID	ABTM15S-02262	ABTM15S-02263	ABTM15S-02264
Field Sample ID	137	138	139
Date Tested	30/06/2015	30/06/2015	30/06/2015
Time Tested	14:00	14:20	14:40
Location	Little Green Estate	Little Green Estate	Little Green Estate
	Grid - M2	Grid - M2/M1	Grid - L1
	Layer 5	Layer 5	Layer 5
Field and Laboratory Data			
Depth of Test (mm)	275	275	275
Depth of Layer (mm)	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0
Oversize Wet (%)	0	0	0
Field Moisture Content (%)	26.0	20.5	26.5
Field Wet Density (t/m³)	1.96	1.91	1.96
Field Dry Density (t/m³)	1.55	1.59	1.55
Peak Converted Wet Density* (t/m³)	1.96	1.83	1.90
Optimum Moisture Content (%)	29.0	24.5	29.5
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	90.5	83.5	89.0
Moisture Variation (%)	2.5 dry	4.0 dry	3.0 dry
Hilf Density Ratio (%)	100.0	104.5	103.5
legend * adjusted for oversize material			

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W00670

Preliminary Report Issued - Issue No.:1 Issue No: 2

This report replaces all previous issues of report no 'HDR:ABTM15W00670'.

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) P.O. Box 40 Kew VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00385AA
Project Name:	GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.:	TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 2/07/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction (as advised by client) MC Variation of-3 to +3
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	Submitted by client
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-02276	
Field Sample ID	140	
Date Tested	1/07/2015	
Time Tested	12:15	
Location	Grid M2/M1	
	Layer 5	
	Retest of 138	

Field and Laboratory Data

Depth of Test (mm)	275	
Depth of Layer (mm)	300	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	29.5	
Field Wet Density (t/m³)	1.82	
Field Dry Density (t/m³)	1.41	
Peak Converted Wet Density* (t/m³)	1.76	
Optimum Moisture Content (%)	32.5	
Compactive Effort	Standard	
Moisture Ratio (%)	90.5	
Moisture Variation (%)	3.0 dry	
Hilf Density Ratio (%)	103.5	
legend * adjusted for oversize material		

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
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Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W00682
Issue No: 2
This report replaces all previous issues of report no 'HDR:ABTM15W00682'.

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

K.B. Patel

Approved Signatory: Krushik Patel
(Senior Technician)
NATA Accredited Laboratory Number:431
Date of Issue: 7/07/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction (as advised by client) Moisture Variation -3 to +3
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	General Fill

Sample Data

Sample ID	ABTM15S-02349	ABTM15S-02350	ABTM15S-02351	ABTM15S-02352	ABTM15S-02353
Field Sample ID	00141	00142	00143	00144	00145
Date Tested	3/07/2015	3/07/2015	3/07/2015	3/07/2015	3/07/2015
Time Tested	11:50	12:05	12:20	15:00	15:20
Location	Grid K2	Grid K1	Grid K2/L2	Grid J1	Grid J2
	Layer 4	Layer 4	Layer 4	Layer 4	Layer 4

Field and Laboratory Data

Depth of Test (mm)	275	275	275	175	175
Depth of Layer (mm)	300	300	300	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0
Field Moisture Content (%)	26.5	28.5	26.5	18.5	18.5
Field Wet Density (t/m³)	1.84	1.84	1.88	2.03	1.94
Field Dry Density (t/m³)	1.45	1.44	1.48	1.72	1.64
Peak Converted Wet Density* (t/m³)	1.85	1.87	1.88	2.05	1.94
Optimum Moisture Content (%)	29.0	31.0	28.5	21.0	21.5
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	91.0	92.0	92.0	89.0	86.0
Moisture Variation (%)	2.5 dry	2.5 dry	2.0 dry	2.0 dry	3.0 dry
Hilf Density Ratio (%)	99.5	98.5	100.0	99.0	100.0
legend * adjusted for oversize material					

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
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ABN 92 114 364 046
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Report No: HDR:ABTM15W00706

Preliminary Report Issued - Issue No.:1 Issue No: 2

This report replaces all previous issues of report no 'HDR:ABTM15W00706'.

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

K.B. Patel

Approved Signatory: Krushik Patel
(Senior Technician)
NATA Accredited Laboratory Number:431
Date of Issue: 13/07/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction (as advised by client)
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	Submitted by client
Source:	On Site
Material:	General Fill

Sample Data

Sample ID	ABTM15S-02456	ABTM15S-02457	ABTM15S-02458	ABTM15S-02459	ABTM15S-02460
Field Sample ID	00146	00147	00148	00149	00150
Date Tested	10/07/2015	10/07/2015	10/07/2015	10/07/2015	10/07/2015
Time Tested	12:40	12:50	13:05	14:30	14:45
Location	Grid 01	Grid N1	Grid N2	Grid M3	Grid N3
	Layer 6	Layer 6	Layer 6	Layer 6	Layer 6
Field and Laboratory Data					
Depth of Test (mm)	225	225	225	175	175
Depth of Layer (mm)	250	250	250	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0
Field Moisture Content (%)	28.5	28.5	19.0	28.5	31.0
Field Wet Density (t/m³)	1.81	1.92	1.85	1.86	1.84
Field Dry Density (t/m³)	1.41	1.49	1.55	1.45	1.40
Peak Converted Wet Density* (t/m³)	1.87	1.85	1.81	1.86	1.87
Optimum Moisture Content (%)	29.0	29.0	21.5	30.0	31.0
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	98.0	98.5	88.5	95.5	99.0
Moisture Variation (%)	0.5 dry	0.5 dry	2.5 dry	1.5 dry	0.5 dry
Hilf Density Ratio (%)	97.0	103.5	102.0	100.0	98.5
legend * adjusted for oversize material					

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W00836
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 19/08/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-03011	ABTM15S-03012
Field Sample ID	151	152
Date Tested	18/08/2015	18/08/2015
Time Tested	08:15	08:38
Location	Stage 1	Stage 1
	Grid K3	Grid L3
	Layer 5	Layer 5

Field and Laboratory Data

Depth of Test (mm)	275	275
Depth of Layer (mm)	300	300
AS Sieve Size (mm)	19.0	19.0
Oversize Wet (%)	7	7
Field Moisture Content (%)	22.5	30.0
Field Wet Density (t/m³)	2.04	1.85
Field Dry Density (t/m³)	1.66	1.42
Peak Converted Wet Density* (t/m³)	2.00	1.92
Optimum Moisture Content (%)	25.0	32.0
Compactive Effort	Standard	Standard
Moisture Ratio (%)	90.0	92.5
Moisture Variation (%)	2.0 dry	2.0 dry
Hilf Density Ratio (%)	102.0	96.0
legend * adjusted for oversize material		

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
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Report No: HDR:ABTM15W00864

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) P.O. Box 40 Kew VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00385AA
Project Name:	GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.:	TRN:

Date of Issue:

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO of 95% of Standard Compaction; ±3% of OMC (specified by client)
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	Submitted by client
Source:	
Material:	

Sample Data

Sample ID	ABTM15S-03106	ABTM15S-03107				
Field Sample ID	00153	00154				
Client Sample ID	153	154				
Date Tested	25/08/2015	25/08/2015				
Time Tested	12:30	12:45				
Location	Grid G3	Grid H4				
	Layer 4	Layer 4				

Field and Laboratory Data

Depth of Test (mm)	275	275				
Field Moisture Content (%)	17.0	19.5				
Field Wet Density (t/m³)	2.02	1.88				
Field Dry Density (t/m³)	1.73	1.57				
Peak Converted Wet Density* (t/m³)	2.03	1.81				
Optimum Moisture Content (%)	19.0	26.0				
Compactive Effort	Standard	Standard				
Moisture Ratio (%)	89.0	74.5				
Moisture Variation (%)	2.0 dry	6.5 dry				
Hilf Density Ratio (%)	99.5	103.5				
legend * adjusted for oversize material						

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W00873
Issue No: 1

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) P.O. Box 40 Kew VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00385AA
Project Name:	GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.:	TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 27/08/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction (as advised by client) -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	Submitted by Client
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-03159	ABTM15S-03160
Field Sample ID	155	156
Date Tested	26/08/2015	26/08/2015
Time Tested	11:00	11:15
Location	Stage 1	Stage 1
	Grid J3	Grid I3
	Layer 4	Layer 4

Field and Laboratory Data

Depth of Test (mm)	275	275
Depth of Layer (mm)	300	300
AS Sieve Size (mm)	19.0	19.0
Oversize Wet (%)	0	0
Field Moisture Content (%)	29.0	23.0
Field Wet Density (t/m³)	1.95	2.08
Field Dry Density (t/m³)	1.51	1.69
Peak Converted Wet Density* (t/m³)	1.84	1.91
Optimum Moisture Content (%)	31.5	27.5
Compactive Effort	Standard	Standard
Moisture Ratio (%)	92.0	83.5
Moisture Variation (%)	2.5 dry	4.0 dry
Hilf Density Ratio (%)	106.0	109.0
legend * adjusted for oversize material		

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W00880
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

NATA WORLD RECOGNISED ACCREDITATION

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 28/08/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	Submitted by Client
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-03172	ABTM15S-03173	ABTM15S-03174
Field Sample ID	157	158	159
Date Tested	27/08/2015	27/08/2015	27/08/2015
Time Tested	12:00	12:15	12:30
Location	Stage 1	Stage 1	Stage 1
	Grid I4	Grid J4	GRid I3
	Layer 4	Layer 3	Layer 4
			Re Test of No 156
Field and Laboratory Data			
Depth of Test (mm)	275	275	275
Depth of Layer (mm)	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0
Oversize Wet (%)	0	0	9
Field Moisture Content (%)	20.5	30.5	23.5
Field Wet Density (t/m³)	1.88	1.94	1.96
Field Dry Density (t/m³)	1.56	1.48	1.59
Peak Converted Wet Density* (t/m³)	1.81	1.83	1.99
Optimum Moisture Content (%)	25.0	33.5	23.0
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	81.0	92.0	101.0
Moisture Variation (%)	4.5 dry	2.5 dry	0.0
Hilf Density Ratio (%)	104.0	106.0	98.5
legend * adjusted for oversize material			

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W00882
Issue No: 1

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) P.O. Box 40 Kew VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00442AA
Project Name:	GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.:	TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 31/08/2015

Sample Details

Location:	Little Green Estate Stage 2, VIC
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	Submitted by Client
Source:	On Site
Material:	General Fill

Sample Data

Sample ID	ABTM15S-03176	
Field Sample ID	160	
Client Sample ID	Grid I4	
Date Tested	28/08/2015	
Time Tested	14:00	
Location	Grid I4	
	Layer 4	
	Retest of 157	

Field and Laboratory Data

Depth of Test (mm)	275	
Depth of Layer (mm)	300	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	27.0	
Field Wet Density (t/m³)	1.92	
Field Dry Density (t/m³)	1.51	
Peak Converted Wet Density* (t/m³)	1.94	
Optimum Moisture Content (%)	26.5	
Compactive Effort	Standard	
Moisture Ratio (%)	101.0	
Moisture Variation (%)	0.0	
Hilf Density Ratio (%)	99.0	
legend * adjusted for oversize material		

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W00888
Issue No: 1

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) P.O. Box 40 Kew VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00385AA
Project Name:	GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.:	TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 1/09/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	Submitted by Client
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-03204	
Field Sample ID	00161	
Client Sample ID	Grid H4	
Date Tested	31/08/2015	
Time Tested	14:15	
Location	Grid H4	
	Layer 4	
	Retest of 154	

Field and Laboratory Data

Depth of Test (mm)	275	
Depth of Layer (mm)	300	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	25.0	
Field Wet Density (t/m³)	1.86	
Field Dry Density (t/m³)	1.48	
Peak Converted Wet Density* (t/m³)	1.95	
Optimum Moisture Content (%)	25.0	
Compactive Effort	Standard	
Moisture Ratio (%)	101.5	
Moisture Variation (%)	0.5 wet	
Hilf Density Ratio (%)	95.0	
legend * adjusted for oversize material		

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
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Report No: HDR:ABTM15W01071

Preliminary Report Issued - Issue No.:1 Issue No: 2

This report replaces all previous issues of report no 'HDR:ABTM15W01071'.

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) P.O. Box 40 Kew VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00385AA
Project Name:	GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.:	TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: G. Samaradiwakara
(Associate Engineering Technician)
NATA Accredited Laboratory Number:431
Date of Issue: 28/10/2015

Sample Details

Location:	Stage 1 - Little Green Estate, VIC
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMc
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	
Material:	

Sample Data

Sample ID	ABTM15S-03847	ABTM15S-03848
Field Sample ID	162	163
Date Tested	28/10/2015	28/10/2015
Time Tested	15:20	15:30
Location	Stage 1	Stage 1
	Grid O1 (NE)	Grid O2 (SE)
	Layer 7	Layer 7
Soil Description	General Fill	General Fill

Field and Laboratory Data

Depth of Test (mm)	250	275
Depth of Layer (mm)	300	300
AS Sieve Size (mm)	19.0	19.0
Oversize Wet (%)	0	0
Field Moisture Content (%)	24.0	24.0
Field Wet Density (t/m³)	1.95	2.05
Field Dry Density (t/m³)	1.57	1.66
Peak Converted Wet Density* (t/m³)	1.87	1.99
Optimum Moisture Content (%)	29.0	24.0
Compactive Effort	Standard	Standard
Moisture Ratio (%)	82.0	99.5
Moisture Variation (%)	5.0 dry	0.0
Hilf Density Ratio (%)	104.5	103.0
legend * adjusted for oversize material		

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W01078
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal:
Project No.:
Project Name:
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Ketankumar Patel
(Senior Geotechnician)
NATA Accredited Laboratory Number:431
Date of Issue: 29/10/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	On Site
Material:	General Fill

Sample Data

Sample ID	ABTM15S-03870	ABTM15S-03871				
Field Sample ID	164	165				
Client Sample ID	O1 (NE)	O1 (South)				
Date Tested	28/10/2015	28/10/2015				
Time Tested	09:45	10:00				
Location	O1 (NE)	O1 (South)				
	Layer 7	Layer 6				

Field and Laboratory Data

Depth of Test (mm)	275	275				
Field Moisture Content (%)	18.0	19.5				
Field Wet Density (t/m³)	2.02	2.12				
Field Dry Density (t/m³)	1.71	1.78				
Peak Converted Wet Density* (t/m³)	1.81	1.86				
Optimum Moisture Content (%)	23.0	23.0				
Compactive Effort	Standard	Standard				
Moisture Ratio (%)	78.5	83.5				
Moisture Variation (%)	5.0 dry	4.0 dry				
Hilf Density Ratio (%)	112.0	114.0				
legend * adjusted for oversize material						

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W01083
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Ketankumar Patel
(Senior Geotechnician)
NATA Accredited Laboratory Number:431
Date of Issue: 30/10/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source:
Material:

Sample Data

Sample ID	ABTM15S-03875	ABTM15S-03876	ABTM15S-03877			
Field Sample ID	166	167	168			
Date Tested	29/10/2015	29/10/2015	29/10/2015			
Time Tested	12:30	12:45	13:05			
Location	Stage 1	Stage 1	Stage 1			
	Grid O1 (Centre)	Grid O1 (East)	Grid N1 (NE)			
	Layer 7	Layer 7	Layer 7			
		Re-Test of No 164				
Soil Description	General Fill	General Fill	General Fill			
Field and Laboratory Data						
Depth of Test (mm)	275	275	275			
Depth of Layer (mm)	300	300	300			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Moisture Content (%)	24.0	24.0	21.5			
Field Wet Density (t/m³)	2.08	2.14	2.03			
Field Dry Density (t/m³)	1.68	1.73	1.67			
Peak Converted Wet Density* (t/m³)	1.99	1.97	1.97			
Optimum Moisture Content (%)	24.5	26.5	19.0			
Compactive Effort	Standard	Standard	Standard			
Moisture Ratio (%)	98.5	90.5	112.0			
Moisture Variation (%)	0.5 dry	2.5 dry	2.5 wet			
Hilf Density Ratio (%)	104.5	109.0	103.0			

legend * adjusted for oversize material

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W01106
Issue No: 2
This report replaces all previous issues of report no 'HDR:ABTM15W01106'.

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 6/11/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source:
Material:

Sample Data

Sample ID	ABTM15S-03923	ABTM15S-03924	ABTM15S-03925
Field Sample ID	169	170	171
Date Tested	30/10/2015	30/10/2015	30/10/2015
Time Tested	07:45	08:00	11:10
Location	01 (nne)	N1 (ne)	02 (sw)
	Layer 7	Layer 7	Layer 8

Field and Laboratory Data

Depth of Test (mm)	275	275	275
Depth of Layer (mm)	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0
Oversize Wet (%)	0	0	0
Field Moisture Content (%)	20.5	27.5	29.5
Field Wet Density (t/m³)	2.07	2.02	1.93
Field Dry Density (t/m³)	1.72	1.58	1.49
Peak Converted Wet Density* (t/m³)	1.89	1.85	1.89
Optimum Moisture Content (%)	23.0	30.0	30.0
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	90.5	92.0	98.0
Moisture Variation (%)	2.0 dry	2.5 dry	0.5 dry
Hilf Density Ratio (%)	109.0	109.0	102.0
legend * adjusted for oversize material			

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W01125
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Ketankumar Patel
(Senior Geotechnician)
NATA Accredited Laboratory Number:431
Date of Issue: 11/11/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	On Site
Material:	General Fill

Sample Data

Sample ID	ABTM15S-03992	ABTM15S-03993				
Field Sample ID	172	173				
Client Sample ID	O2 (E)	M1 (N)				
Date Tested	10/11/2015	10/11/2015				
Time Tested	08:00	02:00				
Location	O2 (E)	M1 (N)				
	Layer 7	Layer 6				
	Stage 1	Stage 1				
Field and Laboratory Data						
Depth of Test (mm)	275	275				
Depth of Layer (mm)	300	300				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Moisture Content (%)	22.5	23.0				
Field Wet Density (t/m³)	1.93	1.95				
Field Dry Density (t/m³)	1.58	1.58				
Peak Converted Wet Density* (t/m³)	1.97	2.00				
Optimum Moisture Content (%)	22.5	22.5				
Compactive Effort	Standard	Standard				
Moisture Ratio (%)	99.5	101.5				
Moisture Variation (%)	0.0	0.5 wet				
Hilf Density Ratio (%)	98.0	97.5				
legend * adjusted for oversize material						

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W01138
Issue No: 1

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) P.O. Box 40 Kew VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00385AA
Project Name:	GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.:	TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 13/11/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	
Material:	

Sample Data

Sample ID	ABTM15S-04023	
Field Sample ID	174	
Date Tested	12/11/2015	
Time Tested	10:00	
Location	Stage 1	
	Grid M2 (C)	
	Layer 6	

Field and Laboratory Data

Depth of Test (mm)	125	
Depth of Layer (mm)	150	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	25.5	
Field Wet Density (t/m³)	1.94	
Field Dry Density (t/m³)	1.54	
Peak Converted Wet Density* (t/m³)	1.90	
Optimum Moisture Content (%)	25.5	
Compactive Effort	Standard	
Moisture Ratio (%)	101.0	
Moisture Variation (%)	0.0	
Hilf Density Ratio (%)	102.0	
legend * adjusted for oversize material		

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Fax: +61 3 8413 6999

Report No: HDR:ABTM15W01151
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 14/11/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source:
Material:

Sample Data

Sample ID	ABTM15S-04060	ABTM15S-04061
Field Sample ID	176	175
Date Tested	13/11/2015	13/11/2015
Time Tested	08:35	08:50
Location	Grid K2	Grid K1
	Layer 6	Layer 6

Field and Laboratory Data

Depth of Test (mm)	225	225
Depth of Layer (mm)	250	250
AS Sieve Size (mm)	19.0	19.0
Oversize Wet (%)	0	0
Field Moisture Content (%)	28.0	27.5
Field Wet Density (t/m³)	2.04	1.92
Field Dry Density (t/m³)	1.60	1.51
Peak Converted Wet Density* (t/m³)	2.00	1.96
Optimum Moisture Content (%)	30.5	27.5
Compactive Effort	Standard	Standard
Moisture Ratio (%)	91.5	99.5
Moisture Variation (%)	2.5 dry	0.0
Hilf Density Ratio (%)	102.0	98.0
legend * adjusted for oversize material		

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W01173
Issue No: 1

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) P.O. Box 40 Kew VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00385AA
Project Name:	GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.:	TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 18/11/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMc
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	
Material:	

Sample Data

Sample ID	ABTM15S-04140	
Field Sample ID	177	
Date Tested	17/11/2015	
Time Tested	12:15	
Location	Grid K1 (W)	
	Layer 6	
	Stage 1	

Field and Laboratory Data

Depth of Test (mm)	225	
Depth of Layer (mm)	250	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	25.0	
Field Wet Density (t/m³)	2.02	
Field Dry Density (t/m³)	1.62	
Peak Converted Wet Density* (t/m³)	1.96	
Optimum Moisture Content (%)	25.5	
Compactive Effort	Standard	
Moisture Ratio (%)	98.0	
Moisture Variation (%)	0.5 dry	
Hilf Density Ratio (%)	103.0	
legend * adjusted for oversize material		

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM15W01205
Issue No: 2
This report replaces all previous issues of report no 'HDR:ABTM15W01205'.

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 20/11/2015

Sample Details

Location: Little Green Estate, Tarneit, Vic
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction (as advised by client)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source:
Material:

Sample Data

Sample ID	ABTM15S-04242	ABTM15S-04243
Field Sample ID	178	179
Date Tested	19/11/2015	19/11/2015
Time Tested	08:30	09:15
Location	Grid K2	Grid J2
	Layer 6	Layer 6

Field and Laboratory Data

Depth of Test (mm)	225	275
Depth of Layer (mm)	250	300
AS Sieve Size (mm)	19.0	19.0
Oversize Wet (%)	0	0
Field Moisture Content (%)	26.5	34.0
Field Wet Density (t/m³)	2.00	1.92
Field Dry Density (t/m³)	1.58	1.43
Peak Converted Wet Density* (t/m³)	2.01	1.92
Optimum Moisture Content (%)	26.0	30.5
Compactive Effort	Standard	Standard
Moisture Ratio (%)	101.5	110.5
Moisture Variation (%)	0.5 wet	3.0 wet
Hilf Density Ratio (%)	100.0	100.0
legend * adjusted for oversize material		

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM15W01249
Issue No: 1

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
P.O. Box 40
Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00385AA
Project Name: GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Shaun Price
(Laboratory Manager)
NATA Accredited Laboratory Number:431
Date of Issue: 26/11/2015

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	
Material:	

Sample Data

Sample ID	ABTM15S-04366					
Field Sample ID	180					
Date Tested	25/11/2015					
Time Tested	07:30					
Location	Stage 1					
	Grid J1					
	Layer 6					

Field and Laboratory Data

Depth of Test (mm)	275					
Depth of Layer (mm)	300					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Moisture Content (%)	28.0					
Field Wet Density (t/m³)	1.97					
Field Dry Density (t/m³)	1.54					
Peak Converted Wet Density* (t/m³)	1.97					
Optimum Moisture Content (%)	27.5					
Compactive Effort	Standard					
Moisture Ratio (%)	101.5					
Moisture Variation (%)	0.5 wet					
Hilf Density Ratio (%)	100.5					
legend * adjusted for oversize material						

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
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Report No: HDR:ABTM15W01269
Issue No: 2
This report replaces all previous issues of report no 'HDR:ABTM15W01269'.

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) Level 1, 436 Johnston Street Abbotsford VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00385AA
Project Name:	GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.:	**TRN:**

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: G. Samaradiwakara
(Associate Engineering Technician)
NATA Accredited Laboratory Number:431
Date of Issue: 18/05/2016

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	
Material:	

Sample Data

Sample ID	ABTM15S-04451					
Field Sample ID	181					
Date Tested	27/11/2015					
Time Tested	09:30					
Location	Stage 1					
	Grid I2 (S)					
	Layer 4					

Field and Laboratory Data

Depth of Test (mm)	275					
Depth of Layer (mm)	300					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Moisture Content (%)	24.0					
Field Wet Density (t/m³)	1.93					
Field Dry Density (t/m³)	1.56					
Peak Converted Wet Density* (t/m³)	1.93					
Optimum Moisture Content (%)	25.5					
Compactive Effort	Standard					
Moisture Ratio (%)	92.5					
Moisture Variation (%)	2.0 dry					
Hilf Density Ratio (%)	**100.0**					
legend * adjusted for oversize material						

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
Fax: +61 3 8413 6999

Report No: HDR:ABTM16W00458

Issue No: 2

This report replaces all previous issues of report no 'HDR:ABTM16W00458'.

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) Level 1, 436 Johnston Street Abbotsford VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00385AA
Project Name:	GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.:	**TRN:**

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

K.B. Patel

Approved Signatory: Krushik Patel
(Senior Technician)
NATA Accredited Laboratory Number:431
Date of Issue: 11/05/2016

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction (as advised by client)
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	On Site
Material:	General Fill

Sample Data

Sample ID	ABTM16S-01519	ABTM16S-01520	ABTM16S-01521	ABTM16S-01522
Field Sample ID	182	183	184	185
Date Tested	31/03/2016	31/03/2016	31/03/2016	31/03/2016
Location	J2	J1	I 1	I 2
Field and Laboratory Data				
Depth of Test (mm)	100	100	100	100
Depth of Layer (mm)	125	125	125	125
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0
Field Moisture Content (%)	18.3	20.8	12.8	16.8
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	2.01	2.01	1.93	1.83
Field Dry Density (t/m³)	1.70	1.66	1.71	1.57
Peak Converted Wet Density* (t/m³)	1.93	1.86	1.85	1.82
Optimum Moisture Content (%)	20.5	25.5	19.5	21.0
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	88.5	81.5	66.5	79.5
Moisture Variation (%)	2.5 dry	4.5 dry	6.5 dry	4.5 dry
Hilf Density Ratio (%)	**104.0**	**108.0**	**104.0**	**100.5**
legend * adjusted for oversize material				

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
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Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM16W00506
Issue No: 1

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) Level 1, 436 Johnston Street Abbotsford VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00385AA
Project Name:	GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.:	**TRN:**

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

K.B. Patel

Approved Signatory: Krushik Patel
(Senior Technician)
NATA Accredited Laboratory Number:431
Date of Issue: 6/04/2016

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction (as advised by client)
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	On Site
Material:	General Fill

Sample Data

Sample ID	ABTM16S-01693	ABTM16S-01694	
Field Sample ID	186	187	
Date Tested	5/04/2016	5/04/2016	
Location	G2	G1	
	Layer 4	Layer 4	
Field and Laboratory Data			
Depth of Test (mm)	175	175	
Depth of Layer (mm)	200	200	
AS Sieve Size (mm)	19.0	19.0	
Oversize Wet (%)	0	0	
Field Moisture Content (%)	21.5	15.0	
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	
Field Wet Density (t/m³)	1.88	1.84	
Field Dry Density (t/m³)	1.55	1.60	
Peak Converted Wet Density* (t/m³)	1.91	1.91	
Optimum Moisture Content (%)	24.0	20.0	
Compactive Effort	Standard	Standard	
Moisture Ratio (%)	90.0	76.0	
Moisture Variation (%)	2.0 dry	4.5 dry	
Hilf Density Ratio (%)	**98.5**	**96.0**	
legend * adjusted for oversize material			

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
Phone: +61 3 8413 6900
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Report No: HDR:ABTM16W00525
Issue No: 1

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) Level 1, 436 Johnston Street Abbotsford VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00385AA
Project Name:	GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.:	**TRN:**

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

K.B. Patel

Approved Signatory: Krushik Patel
(Senior Technician)
NATA Accredited Laboratory Number:431
Date of Issue: 10/04/2016

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	On Site
Material:	General Fill

Sample Data

Sample ID	ABTM16S-01761	ABTM16S-01762	ABTM16S-01763
Field Sample ID	188	189	190
Date Tested	8/04/2016	8/04/2016	8/04/2016
Location	Retest of 187	Layer 5	Layer 5
	Layer 4	Grid H2	Grid H1
	Grid H1		
Field and Laboratory Data			
Depth of Test (mm)	175	75	75
Depth of Layer (mm)	200	100	100
AS Sieve Size (mm)	19.0	19.0	19.0
Field Moisture Content (%)	21.2	22.2	24.6
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	1.95	1.92	1.89
Field Dry Density (t/m³)	1.61	1.57	1.52
Peak Converted Wet Density* (t/m³)	1.96	1.97	1.95
Optimum Moisture Content (%)	21.0	22.5	24.5
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	100.0	99.5	100.0
Moisture Variation (%)	0.0	0.0	0.0
Hilf Density Ratio (%)	**99.5**	**98.0**	**97.0**
legend * adjusted for oversize material			

Comments

Abbotsford, Melbourne Laboratory

Coffey Testing Pty Ltd
3G Marine Parade
Abbotsford VIC 3067

ABN 92 114 364 046
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Report No: HDR:ABTM16W00724
Issue No: 1

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) Level 1, 436 Johnston Street Abbotsford VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00385AA
Project Name:	GEOTABTF09878AA - Little Green Estate - Level 1
Lot No.:	**TRN:**

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

K.B. Patel

Approved Signatory: Krushik Patel
(Senior Technician)
NATA Accredited Laboratory Number:431
Date of Issue: 17/05/2016

Sample Details

Location:	Little Green Estate, Tarneit, Vic
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction, +-3% of OMC (as advised by client)
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	On Site
Material:	General Fill

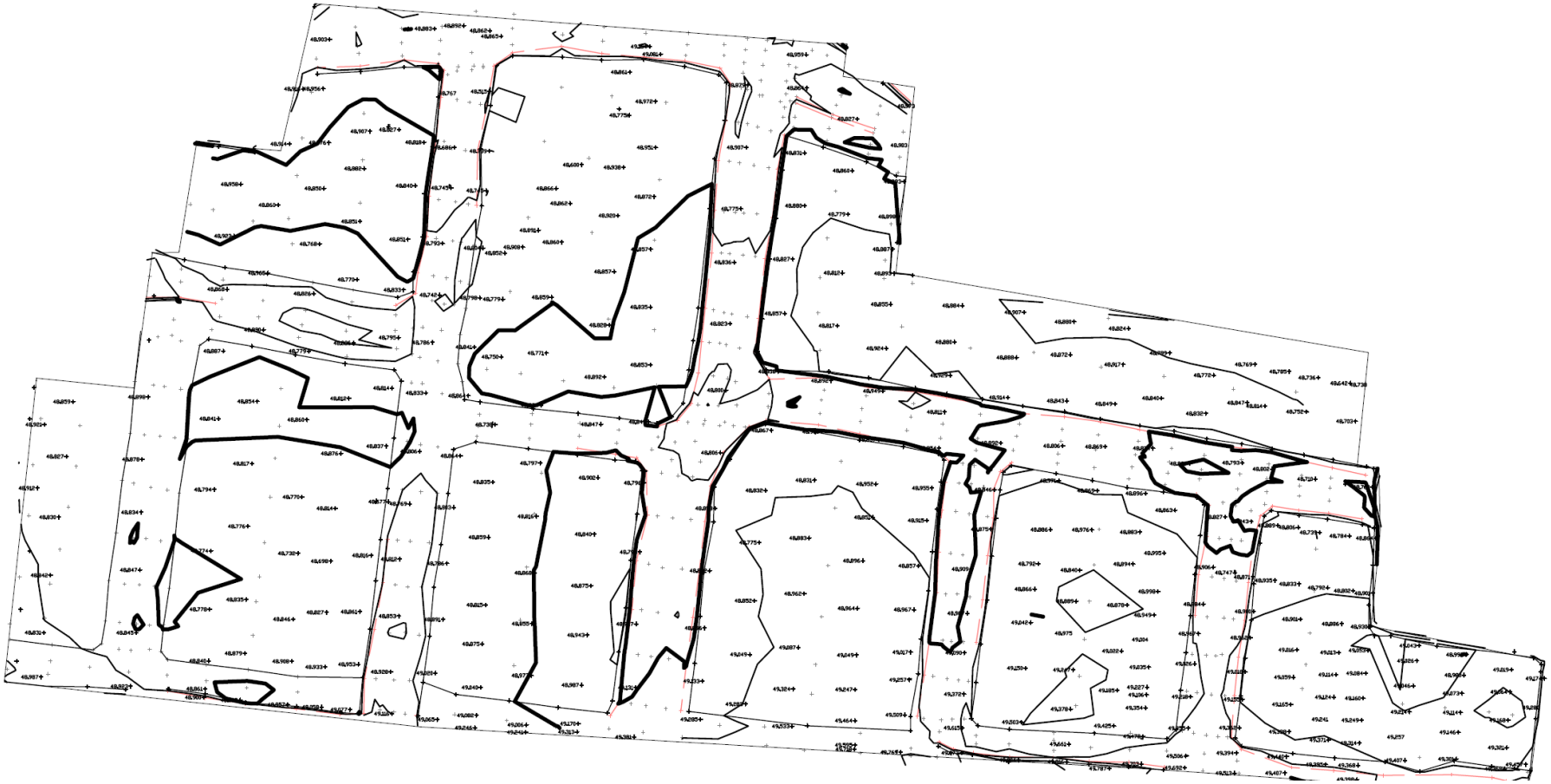
Sample Data

Sample ID	ABTM16S-02460	ABTM16S-02461	ABTM16S-02462
Field Sample ID	00191	00192	00193
Date Tested	16/05/2016	16/05/2016	16/05/2016
Location	Grid J1	Grid I1	Grid I2
	Layer 7	Layer 5	Layer 5
	Retest of 183	Retest of 184	Retest of 185
Field and Laboratory Data			
Depth of Test (mm)	175	175	175
Depth of Layer (mm)	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0
Oversize Wet (%)	0	0	0
Field Moisture Content (%)	22.7	27.8	27.4
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	2.04	2.11	1.99
Field Dry Density (t/m³)	1.66	1.65	1.56
Peak Converted Wet Density* (t/m³)	2.01	1.98	1.99
Optimum Moisture Content (%)	21.5	24.5	24.5
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	106.5	113.5	112.0
Moisture Variation (%)	1.5 wet	3.0 wet	3.0 wet
Hilf Density Ratio (%)	**102.0**	**106.5**	**100.0**
legend * adjusted for oversize material			

Comments

Appendix B – “Little Green Residential Precinct 1 Stage 1 and 2” civil drawings and Combination Survey plan

Stage 1 – Stripped surface and as-built survey combination drawing



Source: Stage 1 – Stripped surface and asbuilt survey combination drawing was extracted and combined from CAD files provided by BMD

drawn	II
approved	SS
date	19/05/2016
scale	NTS
original size	A4

coffey
A TETRA TECH COMPANY

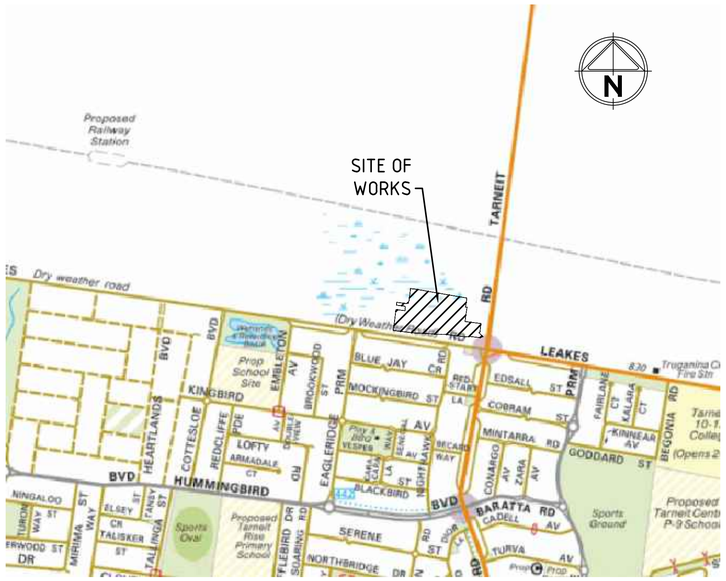
client:	AMEX CORPORATION PTY LTD
project:	STAGE 1 – LEVEL 1 LITTLE GREEN ESTATE
title:	STRIPPED SURFACE AND ASBUILT SURVEY COMBINATION PLAN
project no:	GEOTABTF09878AA - AD
figure no:	

LITTLE GREEN ESTATE
STAGE 1
AMEX CORPORATION PTY LTD

GENERAL NOTES:

1. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM AND ALL COORDINATES ARE TO MAP GRID OF AUSTRALIA (MGA) ZONE 55.
2. ALL EXISTING SURFACE LEVELS SHOWN ON THE ENGINEERING DRAWINGS HAVE BEEN INTERPOLATED FROM A DIGITAL TERRAIN MODEL. THESE LEVELS HAVE BEEN USED AS THE BASIS FOR ALL ENGINEERING DESIGN AND DETERMINATION OF QUANTITIES AND ARE ACCURATE TO WITHIN ±0.05m.
3. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH AS2124-1992 GENERAL CONDITIONS OF CONTRACT, THE ROAD & DRAINAGE SPECIFICATION, APPROVED MUNICIPALITY SPECIFICATIONS AND STANDARD DRAWINGS AND TO THE SATISFACTION OF THE SUPERINTENDENT AND THE MUNICIPAL ENGINEER OR HIS REPRESENTATIVE.
4. ROAD CHAINAGES REFER TO ROAD CENTRELINES. CHAINAGES FOR INTERSECTIONS AND CUL-DE-SACS REFER TO THE LIP OF KERB
5. THE LOCATION OF EXISTING SERVICES SHOULD BE DETERMINED BY THE CONTRACTOR PRIOR TO COMMENCING ANY EXCAVATION BY CONTACTING ALL LOCAL SERVICE AUTHORITIES. ANY EXISTING SERVICES SHOWN ON THESE DRAWINGS ARE OFFERED AS A GUIDE ONLY AND ARE NOT GUARANTEED AS CORRECT.
6. WHERE REQUIRED ANY BUILDINGS, TROUGHS, FENCES AND OTHER STRUCTURES ON SITE ARE TO BE REMOVED AS DIRECTED BY THE ENGINEER. THE COST OF REMOVAL IS TO BE INCLUDED IN THE OVERALL EARTHWORKS FIGURE UNLESS A SPECIFIC ITEM FOR REMOVAL IS DENOTED IN THE SCHEDULE.
7. ALL EXCAVATED ROCK AND SURPLUS SPOIL TO BE REMOVED AND DISPOSED OFF SITE UNLESS NOTED OTHERWISE.
8. ALL FILLING ON LOTS AND WITHIN ROAD RESERVES GREATER THAN 200mm IS TO BE UNDERTAKEN USING LEVEL 1 SUPERVISION AND BE COMPLETED IN ACCORDANCE WITH AS 3798-2007. FILL AREAS ARE TO BE STRIPPED OF TOPSOIL, FILLED AND REPLACED WITH TOPSOIL (WHERE REQUIRED) TO OBTAIN THE FINAL LEVELS SHOWN ON THE DRAWINGS.
9. FILLING MATERIAL IS TO BE IN ACCORDANCE WITH THE SPECIFICATION, AS 3798-2007 & TO THE SATISFACTION OF COUNCIL AND THE SUPERINTENDENT.
10. ALL BATTERS SHALL BE 1 IN 6, UNLESS OTHERWISE SHOWN.
11. NO FILL OR STOCKPILING OF MATERIAL IS TO BE PLACED ON ANY RESERVE FOR PUBLIC OPEN SPACE UNLESS OTHERWISE DIRECTED OR APPROVED BY THE SUPERINTENDENT.
12. TBM'S TO BE RE-ESTABLISHED BY THE LICENSED SURVEYOR IF FOUND TO BE MISSING AT THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR CARE AND MAINTENANCE OF T.B.M.'S THEREAFTER.
13. AT LEAST 3 DAYS PRIOR TO COMMENCING WORK ON EXCAVATIONS IN EXCESS OF 1.50m DEEP, A NOTIFICATION FORM MUST BE SENT TO WORKSAFE. THE CONTRACTOR IS TO COMPLY WITH WORKSAFE, THE MINES (TRENCHES) REGULATION 1982, THE MINES ACT 1958 AND OCCUPATIONAL HEALTH AND SAFETY ACT 1985, 2004.
14. ALL SERVICE TRENCHES UNDER DRIVEWAYS, FOOTPATHS AND PARKING BAYS TO BE BACKFILLED WITH CLASS 2 CRUSHED ROCK. SERVICE TRENCHES LESS THAN 750mm BEHIND KERB AND CHANNEL OR PAVED TRAFFIC AREAS ARE ALSO TO BE BACKFILLED WITH COMPACTED CLASS 2 CRUSHED ROCK.
15. WHERE REQUIRED, ALL EXISTING DAMS, DEPRESSIONS AND DRAINS ARE TO BE BREACHED, DRAINED, DESLUDGED AND SHALL BE EXCAVATED TO A CLEAN FIRM BASE. THE SURFACE SHALL BE INSPECTED, APPROVED AND LEVELED BY THE ENGINEER PRIOR TO COMMENCEMENT OF FILLING. THE FILL SHALL BE APPROVED SELECTED ON SITE MATERIAL OR APPROVED IMPORTED MATERIAL. THE FILL SHALL BE PLACED UNDER CONTROLLED MOISTURE CONDITIONS IN ACCORDANCE WITH THE SPECIFICATION
16. NO BLASTING TO BE CARRIED OUT WITHIN THE MUNICIPALITY WITHOUT OBTAINING COUNCILS PERMISSION.
17. GAS AND WATER CONDUITS ARE TO BE ,
    Ø50mm . CLASS 12 P.V.C. - SINGLE SERVICE
    Ø100mm . CLASS 12 P.V.C. - DUAL SERVICE (DRINKING AND NON DRINKING WATER)

    WITH THE FOLLOWING MINIMUM COVER TO FINISHED SURFACE LEVELS:
    ROAD PAVEMENT - 0.80m
    VERGE, FOOTPATHS - 0.45m
18. ALL SERVICE CONDUIT TRENCHES UNDER ROAD PAVEMENTS TO BE BACKFILLED IN ACCORDANCE WITH RELEVANT MUNICIPALITY OR ROAD AUTHORITY SPECIFICATION.
19. AG/SUBSOIL DRAIN TO BE LAID BEHIND KERB WHERE REQUIRED IN ACCORDANCE WITH THE COUNCIL STANDARD DRAWINGS AND CONNECTED TO UNDERGROUND DRAINAGE.
20. ALL STORMWATER DRAINS ARE TO BE CLASS '2' R.C. PIPES UNLESS OTHERWISE SHOWN. ALL R.C. JOINTS ARE TO BE RUBBER RING JOINTED (R.R.J.).
21. CENTRELINES OF ALL EASEMENT DRAINS ARE OFFSET 1.0m OR 2.2m (WHERE OUTSIDE OF SEWER) FROM THE PROPERTY LINE UNLESS SHOWN OTHERWISE.
22. WHERE CURVED PIPE ALIGNMENTS ARE SHOWN ON THE FACE PLANS THEY ARE TO BE LAID PARALLEL TO THE BACK OF KERB, EXCEPT WHERE A RADIUS HAS BEEN SPECIFICALLY NOMINATED. CURVED PIPES ARE TO BE APPROVED BY COUNCIL AND IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.
23. WATER TAPPINGS TO BE LOCATED IN CENTRE OF ALLOTMENTS UNLESS OTHERWISE SHOWN.
24. TELSTRA IS TO BE NOTIFIED 7 DAYS PRIOR TO PLACEMENT OF CONCRETE WORKS.
25. PAVEMENT DEPTHS MAY BE MODIFIED AS DIRECTED BY THE SUPERINTENDENT. PAVEMENT TO BE BOXED OUT TO MINIMUM DEPTH DENOTED, INSPECTED AND IF SUBGRADE IS IN QUESTION, FURTHER TESTING CARRIED OUT TO DETERMINE FINAL PAVEMENT DEPTH.
26. WHERE PAVEMENT IS CONSTRUCTED ON FILLING, FILL MATERIAL IS TO BE APPROVED BY THE SUPERINTENDENT AND COUNCIL. FILLING TO BE CONSTRUCTED IN LAYERS 150mm THICK WITH COMPACTION ACHIEVING 95% AUSTRALIAN STANDARD DENSITY.
27. WHEN PAVEMENT EXCAVATION IS IN ROCK, ALL LOOSE MATERIAL (INCLUDING ROCKS AND CLAY) MUST BE REMOVED. THE SUB-GRADE MUST THEN BE REGULATED WITH COUNCIL APPROVED MATERIAL.
28. LINEMARKING AND SIGNAGE TO BE INSTALLED IN ACCORDANCE WITH AS 1742-1 AND AS 1742-2 UNLESS NOTED OTHERWISE. STREET SIGNS ARE TO BE INSTALLED IN ACCORDANCE WITH COUNCIL STANDARDS.
29. ALL TEMPORARY WARNING SIGNS USED DURING CONSTRUCTION SHALL BE SUPPLIED AND MAINTAINED IN ACCORDANCE WITH AS 1742-3.
30. TACTILE GROUND SURFACE INDICATORS ARE TO BE INSTALLED IN ACCORDANCE WITH THE DISABILITY DISCRIMINATION ACT AND RELEVANT COUNCIL STANDARD DRAWINGS.
31. CONTRACTOR TO PROVIDE AN ENVIRONMENTAL MANAGEMENT PLAN INCLUDING SILT AND SEDIMENT RUNOFF PROTECTION ETC. PRIOR TO THE COMMENCEMENT OF WORKS.
32. ALL TREES AND SHRUBS ARE TO BE RETAINED UNLESS OTHERWISE SHOWN. IF ROAD AND DRAINAGE CONSTRUCTION NECESSITATES THEIR REMOVAL, WRITTEN PERMISSION MUST BE OBTAINED FROM THE SUPERINTENDENT.
33. TREES NOT SPECIFIED FOR REMOVAL ARE TO BE PROTECTED WITH APPROPRIATE EXCLUSION FENCING PRIOR TO COMMENCEMENT OF ANY WORKS.
34. THE CONTRACTOR IS REQUIRED TO OBTAIN A 'PERMIT TO WORK' FROM MELBOURNE WATER'S SURVEILLANCE OFFICER AT THE PRE-COMMENCEMENT MEETING. THE CONTRACTOR IS REQUIRED TO ENSURE THAT THE 'PERMIT TO WORK' IS KEPT UP TO DATE FOR THE DURATION OF THE CONTRACT.



LOCALITY PLAN

Sheet List Table

DRAWING NO.	DESCRIPTION	
01	FACE SHEET	
02	FACE PLAN	--
03	ROAD LONG SECTIONS - MAINTOP WAY;	HOMEWOOD ENTRANCE
04	ROAD LONG SECTIONS - BLUSH TERRACE;	APPLEGATE CRESCENT AND YOGA WAY
05	ROAD CROSS SECTIONS	HOMEWOOD ENTRANCE - SHEET 1 OF 3
06	ROAD CROSS SECTIONS	HOMEWOOD ENTRANCE - SHEET 2 OF 3
07	ROAD CROSS SECTIONS	HOMEWOOD ENTRANCE - SHEET 3 OF 3
08	ROAD CROSS SECTIONS	MAINTOP WAY - SHEET 1 OF 4
09	ROAD CROSS SECTIONS	MAINTOP WAY - SHEETS 2 OF 4
10	ROAD CROSS SECTIONS	MAINTOP WAY - SHEET 3 OF 4
11	ROAD CROSS SECTIONS - YOGA WAY;	MAINTOP WAY - SHEET 4 OF 4
12	ROAD CROSS SECTIONS	APPLEGATE CRESCENT - SHEET 1 OF 4
13	ROAD CROSS SECTIONS	APPLEGATE CRESCENT - SHEET 2 OF 4
14	ROAD CROSS SECTIONS	APPLEGATE CRESCENT - SHEET 3 OF 4
15	ROAD CROSS SECTIONS	APPLEGATE CRESCENT - SHEET 4 OF 4
16	ROAD CROSS SECTIONS	BLUSH TERRACE - SHEET 1 OF 2
17	ROAD CROSS SECTIONS	BLUSH TERRACE - SHEET 2 OF 2
18	INTERSECTION DETAILS AND LIP PROFILES	SHEET 1 OF 3
19	INTERSECTION DETAILS AND LIP PROFILES	SHEET 2 OF 3
20	INTERSECTION DETAILS AND LIP PROFILES	SHEET 3 OF 3
21	DRAINAGE LONG SECTIONS	SHEET 1 OF 4
22	DRAINAGE LONG SECTIONS	SHEET 2 OF 4
23	DRAINAGE LONG SECTIONS	SHEET 3 OF 4
24	DRAINAGE LONG SECTIONS	SHEET 4 OF 4
25	STANDARD DETAILS	CATCH DRAINS - LONGITUDINAL SECTIONS
26	STANDARD DETAILS	CATCH DRAINS - CROSS SECTIONS
27	STANDARD DETAILS	SHEET 1 OF 2
28	STANDARD DETAILS	SHEET 2 OF 2
29	SIGNAGE AND LINEMARKING	

LEGEND

- EXISTING WATER MAIN, VALVE AND HYDRANT
- EXISTING WATER RECYCLED
- EXISTING UNDERGROUND ELECTRICITY
- EXISTING OVERHEAD ELECTRICITY, POLE AND STAY
- EXISTING TELSTRA & SERVICE PIT
- EXISTING OPTIC FIBRE
- EXISTING GAS MAIN
- EXISTING SEWER & MANHOLE
- EXISTING SEWER RISING MAIN
- EXISTING CATCH DRAIN
- EXISTING STORMWATER DRAIN & SIDE ENTRY PIT (Ex 450ø)
- EXISTING KERB & CHANNEL
- EXISTING SURFACE CONTOUR (168.90)
- TANGENT POINT ROAD CHAINAGE (TPCh 116.57)
- EXISTING SURFACE LEVEL (158.664)
- EXISTING FILL LEVEL. (EF180.915)
- EXISTING LIGHT & POLE
- STREET SIGN
- EXISTING PERMANENT SURVEY MARK
- ALLOTMENT NUMBER (52)
- ROAD CHAINAGE (CH20.06)
- EXISTING TOP OF BATTER
- EXISTING LIMIT / TOE OF BATTER
- ELECTRICAL CONDUIT (E)
- GAS & WATER CONDUIT (GW)
- IRRIGATION CONDUIT (IR)
- PROPOSED AG DRAIN & FLUSHER
- CRUSHED ROCK BACKFILL TO STORMWATER TRENCH
- EXISTING FENCE
- VEHICLE EXCLUSION FENCE
- FUTURE STORMWATER DRAIN & PIT
- EXCAVATION GREATER THAN 200mm
- FILLING GREATER THAN 200mm
- CONCRETE PAVEMENT (YOGA WAY)

- PROPOSED WATER MAIN
- PROPOSED WATER RECYCLED
- PROPOSED UNDERGROUND ELECTRICITY
- PROPOSED OVERHEAD ELECTRICITY & POLE
- PROPOSED TELSTRA
- PROPOSED OPTIC FIBRE CONDUIT
- PROPOSED GAS MAIN
- PROPOSED SEWER AND MANHOLE
- PROPOSED SEWER RISING MAIN
- PROPOSED CATCH DRAIN
- PROPOSED SWALE DRAIN (SD)
- PROPOSED OPEN INVERT (INV)
- PROPOSED STORMWATER DRAIN & PIT (450ø)
- PROPOSED DRAINAGE INLET
- PROPOSED HOUSE DRAIN (H)
- PROPOSED STORMWATER PIT NUMBER (1)
- PROPOSED DRIVEWAY
- PROPOSED FOOTPATH
- KERB & CHANNEL + TYPE (SM2)
- FINISHED SURFACE CONTOUR MINOR (168.90)
- FINISHED SURFACE CONTOUR MAJOR (169.00)
- FINISHED SURFACE LEVEL (FS158.385)
- TOP/TOE OF BATTER LEVEL (T167.15)
- PROPOSED SIGN & POST
- STREET SIGN
- PROPOSED PERMANENT SURVEY MARK
- TEMPORARY BENCH MARK (TBM)
- PROPOSED BOLLARD
- TOP OF BATTER
- LIMIT / TOE OF BATTER
- RIDGE / CHANGE OF GRADE
- INTERSECTION SET-OUT POINT (R2)
- LOT GRADE (1 in 150)
- ROAD RESERVE
- LOT BOUNDARY
- EASEMENT
- LIMIT OF WORKS
- LOT GRADE
- ROAD GRADE

SERVICE LOCATION TABLE

ROAD NAME	POTABLE WATER		RECYCLED WATER		GAS		NBN (TELECOM)		ELECTRICITY			
									POLE		U/G CABLE	
	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET
HOMEWOOD ENTRANCE (20m WIDE ROAD)	W	3.30	W	2.80	W	2.35	E	1.84	E	1.00x	E	2.90
HOMEWOOD ENTRANCE (18m WIDE ROAD)	E	3.50	E	3.00	E	2.50	W	0.29	W	1.00x	W	1.50
MAINTOP WAY	N	3.15	N	2.68	N	2.25	S	1.78	S	1.00x	S	2.45
APPLEGATE CRESCENT (16m WIDE ROAD)	W	3.15	W	2.68	W	2.25	E	1.84	E	1.00x	E	2.55
APPLEGATE CRESCENT (12m WIDE ROAD)	S	-3.65	S	-2.98	S	-2.30	N	1.84	N	1.00x	N	2.60
BLUSH TERRACE	W	3.15	W	2.68	W	2.25	E	1.84	E	1.00x	E	2.55
YOGA WAY	S	1.80	S	1.30	S	0.85	S	2.50	N	1.45	S	3.50

1. TELECOMMUNICATIONS AND ELECTRICITY CABLES TO BE CONSTRUCTED IN A COMMON TRENCH IN ACCORDANCE WITH ELECTRICITY AUTHORITY STANDARD DRG's.
2. GAS AND WATER MAINS TO BE CONSTRUCTED IN A COMMON TRENCH.
3. × = OFFSET FROM BACK OF KERB
4. - = OFFSET FROM BOUNDARY LINE OUTSIDE ROAD RESERVE
5. YOGA WAY ELECTRICAL POLE IS LOCATED INBETWEEN YOGA WAY AND EASY WAY

WARNING
BEWARE OF UNDERGROUND/OVERHEAD SERVICES
THE LOCATION OF SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.SPECIAL CONSIDERATION SHOULD BE GIVEN TO CONSTRUCTION PROCEDURES UNDER OVERHEAD ELECTRICITY TRANSMISSION LINES.

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Rev	Amendments	App'd	Date
0	ISSUED FOR CONSTRUCTION	M.Z.	31/08/15
D	AMENDED AS PER COUNCIL COMMENTS DATED 5/08/15.	M.Z.	10/08/15
C	AMENDED AS PER COUNCIL COMMENTS DATED 15/07/15	M.Z.	21/07/15
B	AMENDED AS PER COUNCIL COMMENTS	M.Z.	15/06/15
A	ISSUED TO COUNCIL	M.Z.	9/06/15

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file location G:\30\301119\ACAD
plotted by Michael Francis plot date 1/9/2015 3:14 PM

Standard Drawing RDA1 - Version 20120911

Scale: NOT TO SCALE

Designed JUNE 2015 M. FRANCIS
Checked JUNE 2015 J. SPENCER
Authorised JUNE 2015 M. ZAMMATARO

Map Reference MELWAY 202 A1
Sheet Number 01
Drg Status CONSTRUCTION

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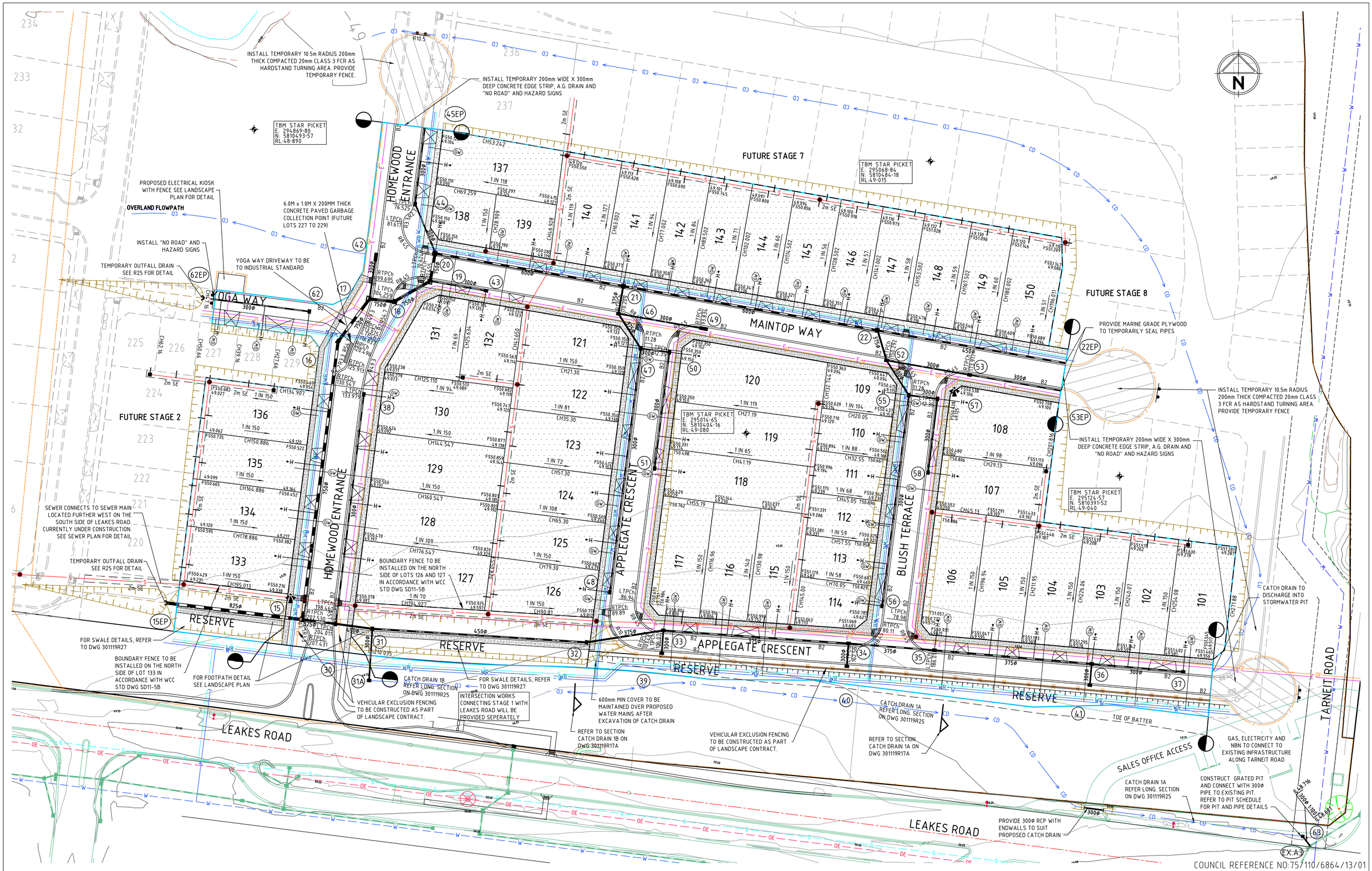
LITTLE GREEN ESTATE STAGE 1
FACE SHEET

AMEX CORPORATION PTY LTD
WYNDHAM CITY COUNCIL

Rev 0
Drg No 301119R01



COUNCIL REFERENCE NO:75/110/6864/13/01

Rev	Amendments	App'd	Date
0	ISSUED FOR CONSTRUCTION	M.Z.	31/08/15
D	AMENDED AS PER COUNCIL COMMENTS DATED 5/08/15.	M.Z.	10/08/15
C	AMENDED AS PER COUNCIL COMMENTS DATED 15/07/15	M.Z.	21/07/15
B	AMENDED AS PER COUNCIL COMMENTS	M.Z.	15/06/15
A	ISSUED TO COUNCIL	M.Z.	9/06/15

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file location G:\30\301119ACAD
plotted by Michael Francis plot date 1/9/2015 3:15 PM
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Standard Drawing RDA1 - Version 20120911

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Vertical 0 5 10 15 20 25

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Map Reference MELWAY 202 A1
Sheet Number 02
Drg Status CONSTRUCTION

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LITTLE GREEN ESTATE STAGE 1
FACE PLAN

AMEX CORPORATION PTY LTD
WYNDHAM CITY COUNCIL

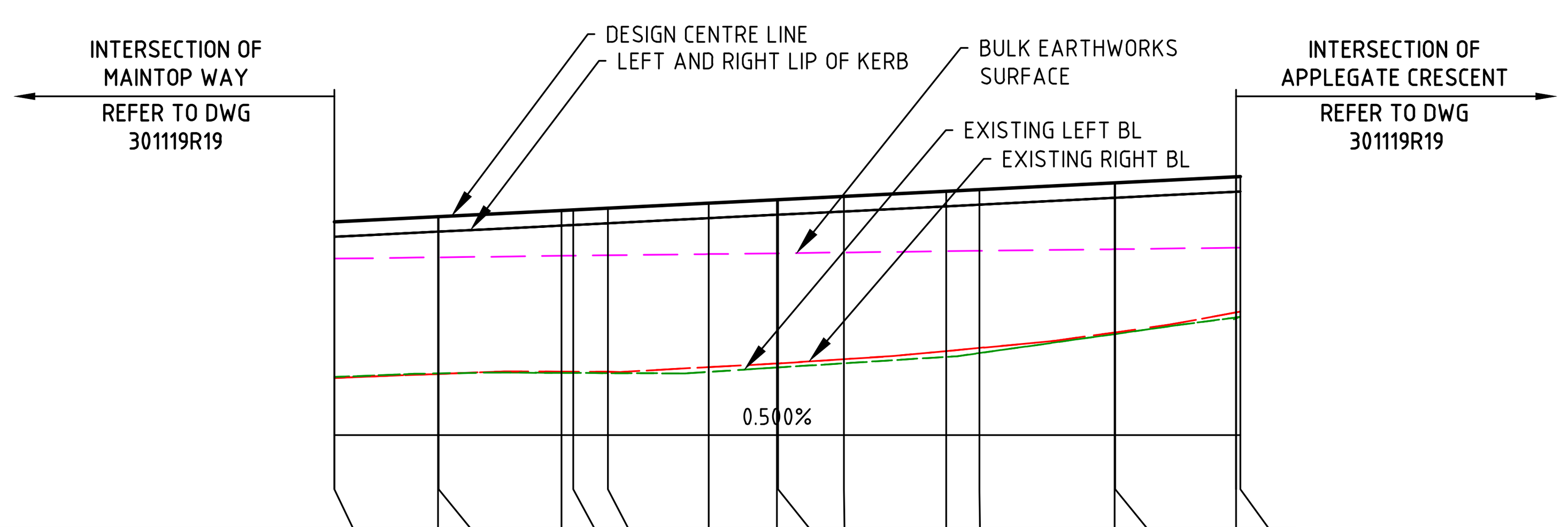
Rev D
Drg No 301119R02

DATUM 46

NOT IN CONTRACT

CHAINAGE (m)	DESIGN CL SURFACE LEVEL	LEFT DESIGN LIP OF KERB	RIGHT DESIGN LIP OF KERB	EXISTING LEFT BUILDING LINE	EXISTING RIGHT BUILDING LINE
322.349	51.067	50.985	50.985	49.246	49.239
330.000	51.029	50.947	50.947	[illegible]	49.235
340.000	50.979	50.897	[illegible]	[illegible]	49.199
347.089	50.943			49.142	49.165
350.000	50.929			49.143	49.108
360.000	[illegible]			49.145	49.169
362.204	50.868			49.146	49.177
364.515	50.856	50.745	50.745	49.154	49.178
366.012	50.849			49.160	49.179

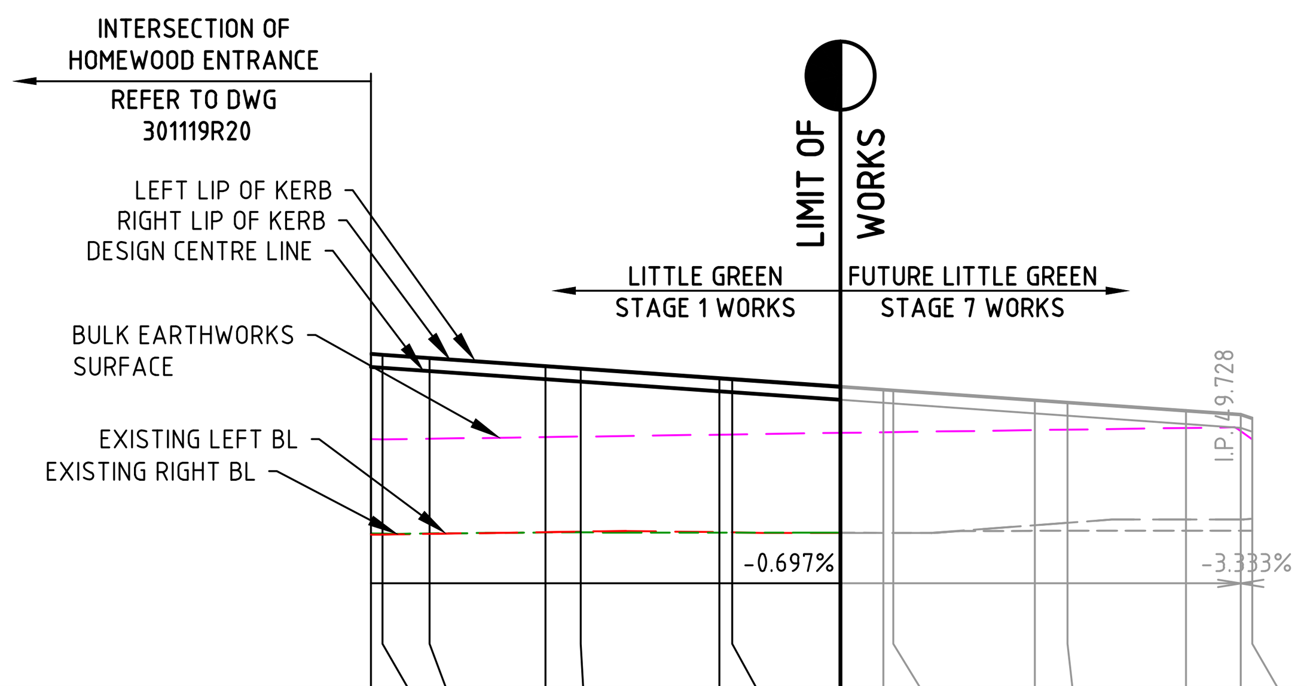
APPLEGATE CRESCENT



DATUM 48

CHAINAGE (m)	DESIGN CL SURFACE LEVEL	LEFT DESIGN LIP OF KERB	RIGHT DESIGN LIP OF KERB	EXISTING LEFT BUILDING LINE	EXISTING RIGHT BUILDING LINE
12.349 (LTP)	50.276			49.130	49.122
20.000	50.315	50.203	50.203	49.156	49.153
20.045	50.315	50.203	50.203	49.156	49.153
29.129	50.360	50.249	50.249	49.160	49.170
30.000	50.365	50.253	50.253	49.160	49.169
32.545	50.377	50.266	50.266	49.159	49.168
40.000	50.415	50.303	50.303	49.168	49.203
45.045	50.440	50.328	50.328	49.200	49.230
45.129	50.440	50.329	50.329	49.200	49.230
50.000	50.465	50.353	50.353	49.231	49.261
57.545	50.502	50.391	50.391	49.278	49.321
60.000	50.515	50.403	50.403	49.307	49.344
70.000	50.565	50.453	50.453	49.447	49.459
70.045	50.565	50.453	50.453	49.448	49.460
78.978 (LTP)	50.609	50.498	50.498	49.570	49.607
79.278	50.611	50.499	50.499	49.574	49.612

BLUSH TERRACE

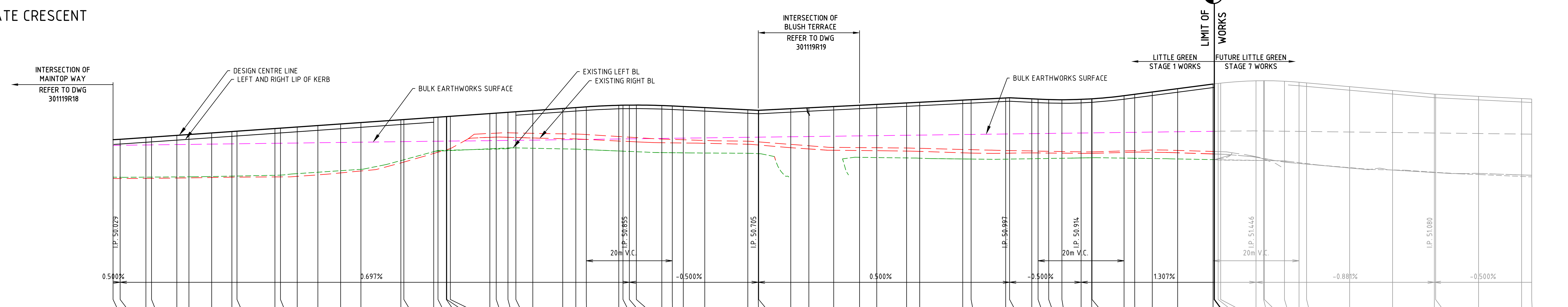


DATUM 48

NOT IN CONTRACT

CHAINAGE (m)	DESIGN CL SURFACE LEVEL	LEFT DESIGN LIP OF KERB	RIGHT DESIGN LIP OF KERB	EXISTING LEFT BUILDING LINE	EXISTING RIGHT BUILDING LINE
16.132	50.129	50.220	50.212	49.029	49.023
16.896	50.123	50.215	50.205	49.029	49.023
20.000	50.102	50.194	50.184	49.030	49.027
27.663	50.048	50.140	50.130	49.037	49.039
30.000	50.032	50.124	50.114	49.038	49.042
39.163	49.968	50.060	50.050	49.035	49.038
40.000	49.962	50.054	50.044	49.035	49.037
47.163	49.913	50.004	49.994	49.035	49.034
50.000	49.893	49.984	49.974	[illegible]	49.033
50.663	49.888	49.980	49.970	[illegible]	49.033
60.000	49.823	49.915	[illegible]	[illegible]	49.084
62.163	49.808	49.900	[illegible]	[illegible]	49.100
70.000	49.753	[illegible]	[illegible]	49.048	49.122
73.626	49.728	[illegible]	[illegible]	49.049	49.122
74.384	[illegible]	[illegible]	49.784	49.049	49.126

YOGA WAY



DATUM 46

NOT IN CONTRACT

CHAINAGE (m)	DESIGN CL SURFACE LEVEL	LEFT DESIGN LIP OF KERB	RIGHT DESIGN LIP OF KERB	EXISTING LEFT BUILDING LINE	EXISTING RIGHT BUILDING LINE
12.349 (LTP)	50.021			49.148	49.119
14.000	50.029	49.918	49.918	49.145	49.115
20.000	50.071	49.960	49.960	49.148	49.118
21.298	50.080	49.969	49.969	49.149	49.120
27.188	50.121	50.010	50.010	49.153	49.127
30.000	50.141	50.029	50.029	49.155	49.131
35.298	50.178	50.066	50.066	49.162	49.138
40.000	50.211	50.099	50.099	49.172	49.146
41.188	50.219	50.107	50.107	49.174	49.148
50.000	50.280	50.169	50.169	49.191	49.153
51.298	50.289	50.178	50.178	49.194	49.153
55.188	50.316	50.205	50.205	49.229	49.166
60.000	50.350	50.238	50.238	49.262	49.200
65.298	50.387	50.275	50.275	49.298	49.246
70.000	50.420	50.308	50.308	49.330	49.291
79.298	50.484	50.373	50.373	49.534	49.479
80.000	50.489	50.378	50.378	49.553	49.497
86.937 (LTP)	50.538	50.426	50.426	49.741	49.661
87.940	50.545			49.769	49.685
89.894 (RTP)	50.558			49.775	49.770
90.000	50.559			49.776	49.775
90.810	50.565			49.778	49.812
100.000	50.629			49.797	50.076
101.476 (RTP)	50.639			49.801	50.080
104.211	50.658			49.810	50.074
106.065 (LTP)	50.671			49.828	50.069
110.000	50.698	50.617	50.617	49.820	50.059
116.955	50.747	50.665	50.665	49.806	50.044
120.000	50.768	50.686	50.686	49.800	50.038
122.442	50.785	50.703	50.703	49.788	50.026
130.000	50.821	50.739	50.739	49.757	49.989
130.977	50.823	50.741	50.741	49.752	49.984
132.442	50.825	50.742	50.742	49.746	49.977
134.087	50.826	50.744	50.744	49.739	49.969
140.000	50.815	50.733	50.733	49.720	49.950
142.442	50.805	50.723	50.723	49.717	49.946
144.999	50.792	50.710	50.710	49.713	49.943
150.000	50.767	50.685	50.685	49.709	49.935
160.000	50.717	50.635	50.635	49.704	49.914
162.442	50.705	50.623	50.623	49.695	49.897
162.555 (LTP)	50.705	50.624	50.624	49.695	49.896
170.000	50.743		50.661		49.833
174.218	50.764		50.682		49.804
180.000	50.793		50.711		49.774
186.006 (LTP)	50.823		50.741	49.609	49.768
190.000	50.843	50.761	50.761	49.604	49.764
196.938	50.877	50.796	50.796	49.595	49.755
200.000	50.893	50.811	50.811	49.589	49.747
210.000	50.943	50.861	50.861	49.572	49.715
211.950	50.952	50.871	50.871	49.569	49.708
220.000	50.993	50.911	50.911	49.567	49.705
220.895	50.997	50.915	50.915	49.568	49.707
226.062	50.971	50.889	50.889	49.576	49.713
227.531	50.964	50.882	50.882	49.579	49.711
230.000	50.954	50.873	50.873	49.583	49.709
233.066	50.950	50.868	50.868	49.587	49.707
237.531	50.959	50.878	50.878	49.595	49.703
240.000	50.972	50.890	50.890	49.599	49.702
240.073	50.972	50.890	50.890	49.599	49.702
247.531	51.045	50.963	50.963	49.591	49.723
250.000	51.077	50.995	50.995	49.587	49.730
254.084	51.130	51.048	51.048	49.581	49.728
260.000	51.207	51.126	51.126	49.571	49.715
268.228	51.315	51.233	51.233	49.556	49.689
268.535	51.319	51.237	51.237	49.556	49.689
269.412	51.330			49.574	49.686
270.000	51.336			49.580	49.683
278.228	51.391			49.536	49.611
280.000	51.393			49.534	49.579
280.175	51.393			49.534	49.575
284.857	51.381			49.528	49.500
288.228	51.358	51.276	51.276	49.486	49.467
290.000	51.342	51.260	51.260	49.464	49.451
300.000	51.254	51.172	[illegible]	[illegible]	49.361
310.000	51.166	[illegible]	[illegible]	49.316	49.313
319.700	[illegible]	[illegible]	50.999	49.264	49.255
320.000	[illegible]	[illegible]	50.997	49.262	49.253
330.000	51.029	50.947	50.947	49.208	49.235
340.000	50.979	50.897	50.897	49.164	49.199
342.349	50.967	50.885	50.885	49.154	49.192

FOR CONTINUATION REFER TOP LEFT

APPLEGATE CRESCENT

COUNCIL REFERENCE NO:75/110/6864/13/01

Rev	Amendments	App'd	Date
0	ISSUED FOR CONSTRUCTION	M.Z.	31/08/15
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C	AMENDED AS PER COUNCIL COMMENTS DATED 15/07/15	M.Z.	21/07/15
B	AMENDED AS PER COUNCIL COMMENTS	M.Z.	15/06/15
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Standard Drawing RDA1 - Version 20120911

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Designed JUNE 2015
M. FRANCIS
Checked JUNE 2015
J. SPENCER
Authorised JUNE 2015
M. ZAMMATARO

Map Reference MELWAY 202 A1
Sheet Number 04
Drg Status CONSTRUCTION

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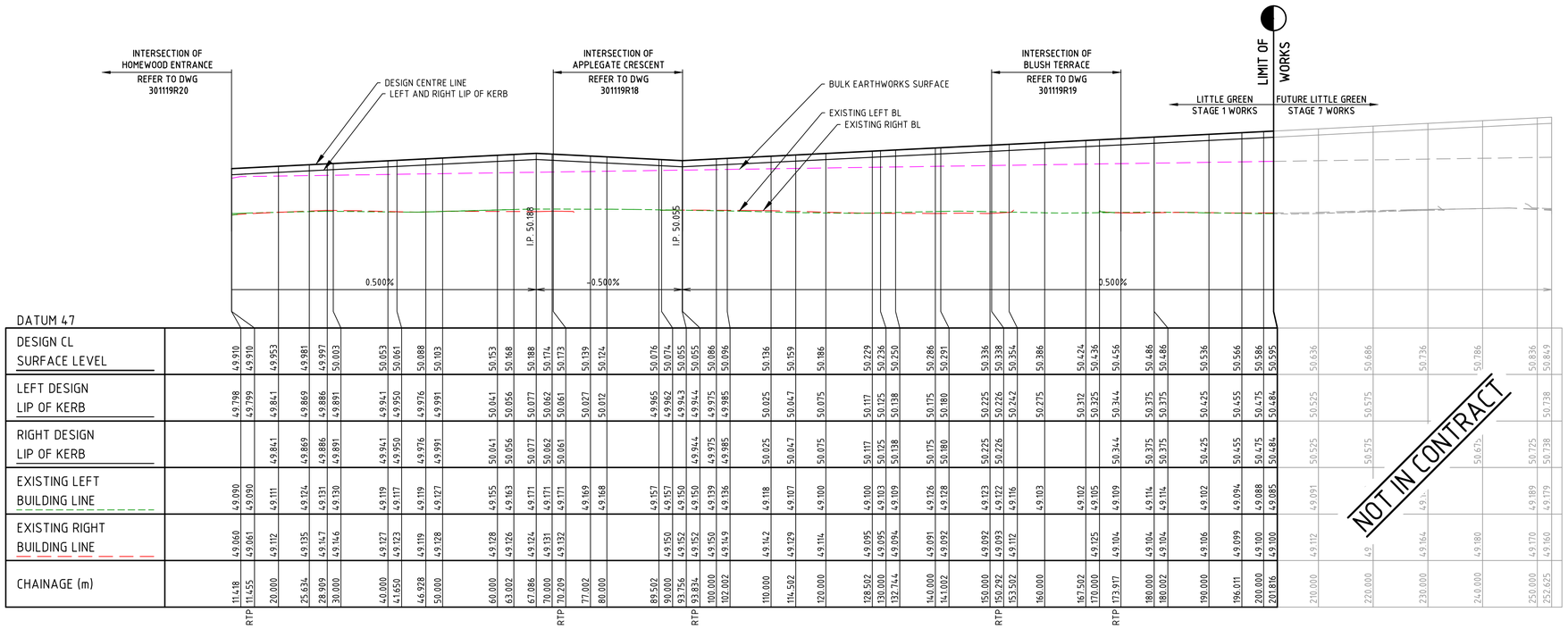
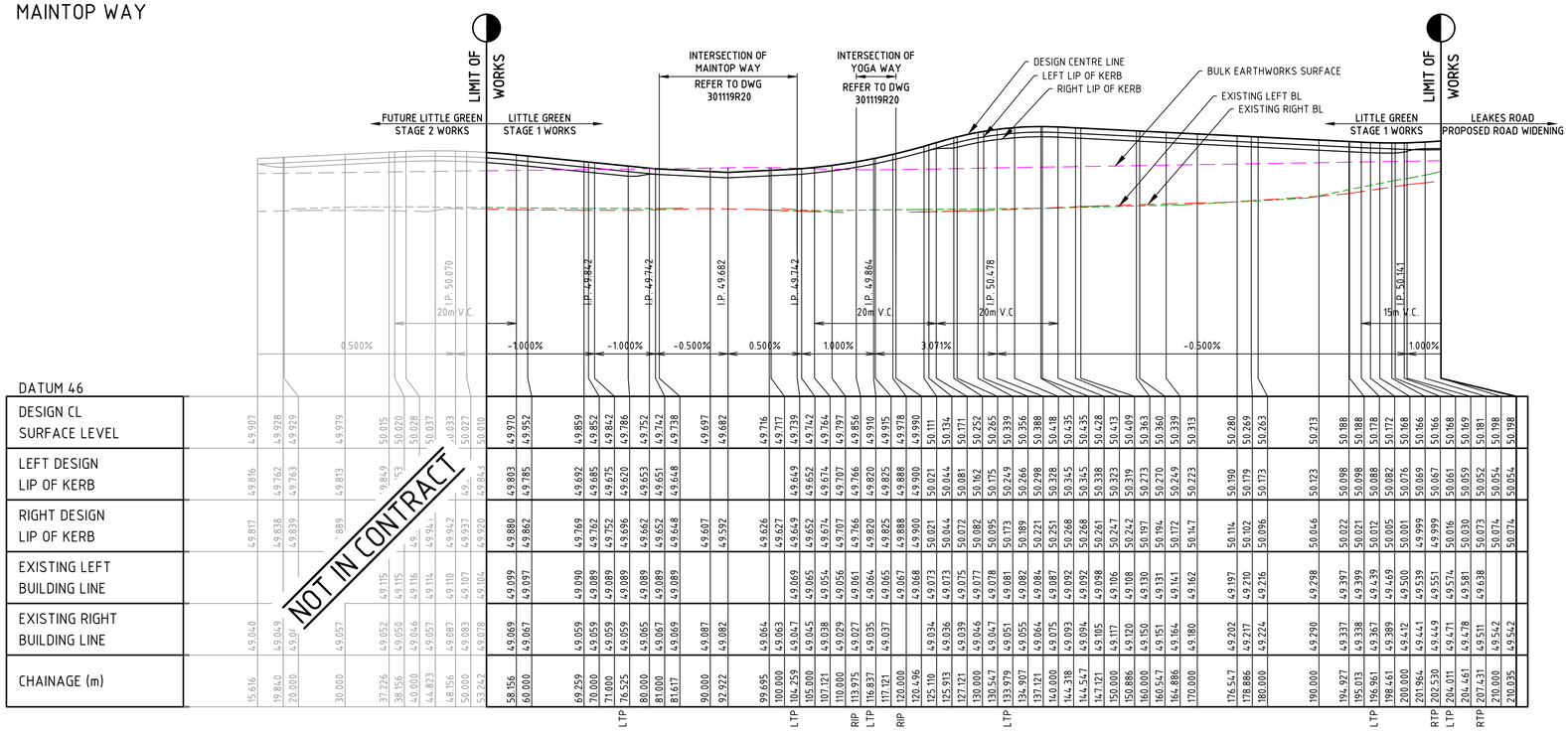
LITTLE GREEN ESTATE
STAGE 1
ROAD LONG SECTIONS - BLUSH TERRACE; APPLEGATE CRESCENT AND YOGA WAY
AMEX CORPORATION PTY LTD
WYNDHAM CITY COUNCIL
Rev 0
Drg No 301119R04



MAINTOP WAY



HOMEWOOD ENTRANCE

COUNCIL REFERENCE NO:75/110/6864/13/01

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B	AMENDED AS PER COUNCIL COMMENTS	M.Z.	15/06/15
A	ISSUED TO COUNCIL	M.Z.	9/06/15

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Standard Drawing RDA1 - Version 20120911

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Vertical 0 0.5 1.0 1.5 2.0 2.5

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Map Reference MELWAY 202 A1
Sheet Number 03
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LITTLE GREEN ESTATE STAGE 1

ROAD LONG SECTIONS - MAINTOP WAY; HOMEWOOD ENTRANCE

AMEX CORPORATION PTY LTD
WYNDHAM CITY COUNCIL

Rev 0
Drg No 301119R03

Appendix C – Summary of imported fill material

GEOTABTF09878AA - LITTLE GREEN - IMPORTED MATERIAL SUMMARY

Fill source	Dates observed	Estimated volume (m3)	Stage placed
x	1/05/2015	x	x
	2/05/2015		
x	3/05/2015	x	x
Werribee Plaza, Point Cook	4/05/2015	x	1
Werribee Plaza, Point Cook, Trugania, Broadmedows, Tarneit	5/05/2015	2500-3000	1
Epping, Werribee plaza, Point Cook, Truganina, Broadmedows, Tarneit	6/05/2015	2500-3000	1
Epping, Werribee plaza, Point Cook, Truganina, Broadmedows, Tarneit	7/05/2015	x	1
x	8/05/2015	x	1
	9/05/2015		
x	10/05/2015	x	1
Epping, Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, Preston	11/05/2015	x	1
x	12/05/2015	x	1
Epping, Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, Preston, Werribee Hospital	13/05/2015	2900	1
x	14/05/2015	x	1
	15/05/2015		
	16/05/2015		
Epping, Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, Preston, Werribee Hospital	17/05/2015	x	1
x	18/05/2015	x	1
Epping, Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, Preston, Werribee Hospital	19/05/2015	x	1
x	20/05/2015	x	1
Werribee Plaza, Point Cook	21/05/2015	1980	1
Tarneit, Broadmeadows	22/05/2015	x	1
	23/05/2015		
Tarneit, Broadmeadows	24/05/2015	x	1
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	25/05/2015	x	1
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	26/05/2015	x	1
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	27/05/2015	x	1
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	28/05/2015	x	1
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	29/05/2015	x	1
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	30/05/2015	x	1
	31/05/2015		
	1/06/2015		
x	2/06/2015	x	1

Fill source	Dates observed	Estimated volume (m3) by Coffey	Stage placed
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	4/06/2015	x	1
	5/06/2015		
	6/06/2015		
	7/06/2015		
	8/06/2015		
	9/06/2015		
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	10/06/2015	x	1
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	11/06/2015	x	1
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	12/06/2015	x	1
	13/06/2015		
	14/06/2015		
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	15/06/2015	x	1
x	16/06/2015	x	1
x	17/06/2015	x	1
	18/06/2015		
	19/06/2015		
	20/06/2015		
	21/06/2015		
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	22/06/2015	x	1
BMD roadworks (parallel road)	23/06/2015	x	1
BMD roadworks (parallel road)	24/06/2015	x	1
BMD roadworks (parallel road)	25/06/2015	x	1
BMD roadworks (parallel road)	26/06/2015	x	1
	27/06/2015		
	28/06/2015		
BMD roadworks (parallel road)	29/06/2015	x	1
BMD roadworks (parallel road)	30/06/2015	x	1
BMD roadworks (parallel road)	1/07/2015	x	1
BMD roadworks (parallel road), local BMD project	2/07/2015	x	1
BMD roadworks (parallel road), local BMD project	3/07/2015	x	1
	4/07/2015		
	5/07/2015		
	6/07/2015		
	7/07/2015		
BMD roadworks (parallel road), local BMD project	8/07/2015	x	1
BMD roadworks (parallel road), local BMD project	9/07/2015	x	1

Fill source	Dates observed	Estimated volume (m3) by Coffey	Stage placed
	11/07/2015		
	12/07/2015		
	13/07/2015		
	14/07/2015		
	15/07/2015		
	16/07/2015		
	17/07/2015		
	18/07/2015		
	19/07/2015		
	20/07/2015		
	21/07/2015		
	22/07/2015		
	23/07/2015		
Wootten road (local BMD project)	24/07/2015	x	1 & 2
	25/07/2015		
	26/07/2015		
Wootten road (local BMD project)	27/07/2015	x	2
Wootten road (local BMD project)	28/07/2015	x	2
Wootten road (local BMD project)	29/07/2015	x	2
Ivanhoe. Ravenhall Prison	30/07/2015	1640	2
x	31/07/2015	x	2
	1/08/2015		
	2/08/2015		
x	3/08/2015	x	2
Werribee Plaza	4/08/2015	2520	2
x	5/08/2015	x	2
Werribee Plaza	6/08/2015	1970	2
Werribee Plaza	7/08/2015	2300	2
	8/08/2015		
	9/08/2015		
Werribee Plaza, Ivanhoe	10/08/2015	1700	2
Werribee Plaza, Ivanhoe	11/08/2015	200	2
Werribee Plaza, Ivanhoe	12/08/2015	920	2
Werribee Plaza, Ivanhoe, South Yarra (Landtrack)	13/08/2015	840	2
Werribee Plaza, Ivanhoe, South Yarra (Landtrack)	14/08/2015	940	2
	15/08/2015		

Fill source	Dates observed	Estimated volume (m3) by Coffey	Stage placed
Leakes roadworks	17/08/2015	1534.5	1 & 2
Leakes roadworks, Werribee Plaza, Essendon	18/08/2015	2163	1 & 2
Leakes roadworks, Werribee Plaza, Essendon	19/08/2015	2704	2
Leakes radworks, Werribee Plaza	20/08/2015	3721	2
Leakes roadworks, Ravenhall Prison	21/08/2015	2620	2
	22/08/2015		
	23/08/2015		
Werribee Plaza, South Yarra (Landtrack)	24/08/2015	2530	2
Werribee Plaza, Ivanhoe Prison	25/08/2015	1330	2
Glen Iris (Chappell street), Leakes roadworks	26/08/2015	1000	2
Glen Iris (Chappell street), Leakes roadworks	27/08/2015	1000	2
Glen Iris (Chappell street), Leakes roadworks	28/08/2015	730	2
	29/08/2015		
	30/08/2015		
South Yarra, Ranvenshall Prison, Wooten road	31/08/2015	780	2
Werribee Plaza, Ravenhall Prison	1/09/2015	1740	2
Werribee Plaza, South Yarra (Chapel street)	2/09/2015	1430	2
x	3/09/2015	x	x
x	4/09/2015	x	x
	5/09/2015		
	6/09/2015		
x	7/09/2015	x	x
	8/09/2015		
x	9/09/2015	x	2
x	10/09/2015	x	2
	11/09/2015		
	12/09/2015		
	13/09/2015		
	14/09/2015		
	15/09/2015		
	16/09/2015		
	17/09/2015		
	18/09/2015		
	19/09/2015		
	20/09/2015		
	21/09/2015		

Fill source	Dates observed	Estimated volume (m3) by Coffey	Stage placed
	23/09/2015		
x	24/09/2015	x	3
Ravenhall Prison	25/09/2015	1250	3
	26/09/2015		
	27/09/2015		
Ravenhall Prison	28/09/2015	1000	3
	29/09/2015		
Ravenhall Prison	30/09/2015	1500	3
Ravenhall Prison	1/10/2015	950	3
	2/10/2015		
	3/10/2015		
	4/10/2015		
	5/10/2015		
Caroline Springs	6/10/2015	150	3
Werribee, Caroline Springs	7/10/2015	210	3
St Albans, Caroline Springs,	8/10/2015	880	3
St Albans, Caroline Springs,	9/10/2015	820	3
St Albans, Werribee	10/10/2015	1500	3
	11/10/2015		
St Albans, Werribee	12/10/2015	1400	3
St Albans, Vinedex Sunshine	13/10/2015	650	3
St Albans, Vinedex Sunshine, Ravenhall Prison	14/10/2015	2300	3
St Albans, Werribee	15/10/2015	x	3
St Albans, Vinedex Sunshine	16/10/2015	x	3
	17/10/2015		
	18/10/2015		
x	19/10/2015	x	3
Vinedex Sunshine, St Albans	20/10/2015	160	3
Ravenhall Prison, St Albans	21/10/2015	2190	3
South Yarra, Ravenhall Prison, St Albans	22/10/2015	810	1 & 3
South Yarra, Ravenhall Prison	23/10/2015	550	1 & 3
	24/10/2015		
	25/10/2015		
South Yarra. Ravenhall Prison, Werribee	26/10/2015	1900	1 & 3
Coburg, South Melbourne, Werribee Plaza	27/10/2015	1150	1 & 3
Coburg, South Melbourne	28/10/2015	1150	1 & 3

Fill source	Dates observed	Estimated volume (m3) by Coffey	Stage placed
Altona, Coburg, On-site (Stage 1 only)	30/10/2015	1040	1 & 3
	31/10/2015		
	1/11/2015		
	2/11/2015		
	3/11/2015		
Coburg, South Melbourne, On-site (Stage 1 only)	4/11/2015	740	1 & 3
	5/11/2015		
	6/11/2015		
	7/11/2015		
	8/11/2015		
On-site (Stage 1 only)	9/11/2015		
St Albams, Coburg, South Melbourne, On-site (Stage 1 only)	10/11/2015	1380	1 & 3
On-site (Stage 1 only)	11/11/2015		
On-site (Stage 1 only)	12/11/2015		
On-site (Stage 1 only)	13/11/2015		
	14/11/2015		
	15/11/2015		
Ravenhall Prison, Ivanhoe, Laverton, On-site (Stage 1 only)	16/11/2015	940	1 & 3
On-site (Stage 1 only)	17/11/2015		3
Ivanhoe, Ravenhall Prison, On-site (Stage 1 only)	18/11/2015		1 & 3
Melton, South Melbourne, Ravenhall Prison	19/11/2015	3000	3
Coburg, South Melbourne, Ravenhall Prison	20/11/2015	2880	3
	21/11/2015		
	22/11/2015		
Coburg	23/11/2015	840	3
South Melbourne, Ravenhall Prison, on-site (Stage 1 only)	24/11/2015	940	1 & 3
South Melbourne, Ravenhall Prison, on-site (Stage 1 only)	25/11/2015	1340	1 & 3
South Melbourne, Ravenhall Prison, on-site (Stage 1 only)	26/11/2015	1840	1 & 3
Ravenhall Prison, Niddrie	27/11/2015	1680	3
Ravenhall Prison	28/11/2015	600	3
	29/11/2015		
Galvin Park, Ravenhall Prison	30/11/2015	2060	3 & 4

BMD URBAN PTY LTD
Little Green Estate Bulk Earthworks
Job 008-3047

CLEAN FILL SUMMARY SHEET

BULK EW STAGE	FILL SOURCE LOCATION	CLEAN FILL REPORT REFERENCE
1	Werribee Shopping Centre, Werribee	1-001
1	Waterdale Rd, Ivanhoe	1-002
1	Riding Boundary Rd, Ravenhall	1-003
1	Werribee Medical Centre	1-004
1	Middle Rd to Leakes Rd, Truganina	1-005
1	Menegana Estate, Truganina	1-006
1	Camp Rd, Broadmeadows	1-007
1	Henry Way, Craigieburn	1-008
1	Point Cook Town Centre	1-009
1	Bell St, Preston	1-010
1	St Georges Rd, Thornbury	1-011
1	Hudsons Rd, Spotswood	1-012
1	Wootten Road, Tarneit	1-013
1	Banbury Village, Footscray	1-014
1	Melbourne Markets, Epping	1-015
1	Tullamarine Airport	1-016
1	Anderson St, South Yarra	1-017

BULK EW STAGE	FILL SOURCE LOCATION	CLEAN FILL REPORT REFERENCE
2	Werribee Shopping Centre	1-001 (already on file from stage 1)
2	Waterdale Rd, Ivanhoe	1-002 (already on file from stage 1)
2	Riding Boundary Rd, Ravenhall	1-003 (already on file from stage 1)
2	Werribee Medical Centre	1-004 (already on file from stage 1)
2	Menegana Estate, Truganina	1-006 (already on file from stage 1)
2	Point Cook Town Centre	1-009 (already on file from stage 1)
2	Banbury Village, Footscray	1-014 (already on file from stage 1)
2	Anderson St, South Yarra	1-017 (already on file from stage 1)
2	Wilson St, South Yarra	2-001
2	Edward St, East Brunswick	2-002
2	Werribee Sports Centre, Ballan Rd, Werribee	2-003
2	Bridge Rd & Diamond Pde, Melton South	2-004

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