Level 1 Supervision & Inspection Report

Merrifield Estate - Stage 25

Ref: 14874/P/621

Prepared for
BMD Urban Pty Ltd

31 October 2017

Construction Sciences

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Document Information

Prepared for	BMD Urban Pty Ltd
Project Name	Merrifield Estate - Stage 25
File Reference	Level 1 Supervision & Inspection Report
Job Reference	14874/P/621
Date	31 October 2017

Document Control

Version	Date	Prepared By	Prepared (Initial)	Reviewed By	Reviewed (Initial)
1	31/10/2017	Mathew Grech	M.G	Robert Harris	R.H

Table of Contents

Tables

Appendices

1 INTRODUCTION

Construction Sciences was commissioned by BMD Urban Pty Ltd to provide Level 1 supervision and testing services for the Merrifield Estate Development – Stage 25 project located at Mickleham, Victoria.

This report represents the results of inspection activities, compaction and moisture control, and laboratory testing carried out for the placement of fill material for the proposed Merrifield Estate Development – Stage 25 as shown in the attached site location plans in Appendix A.

All works were carried out in accordance with:

- AS 1289 "*Methods of Testing Soils for Engineering Purposes*".
- AS3798-2007 "Guidelines on earthworks for commercial & residential developments"

Material used in the earthworks for level 1 areas was mainly sourced from the existing on site materials.

A total of approximately 25,410m^3 of fill above 300mm thick has been placed on Stage 25 of the Merrifield Estate Development over the duration of Level 1 supervision. The fill volume has been determined from site records and supported information provided by the client.

2 EARTHWORK SPECIFICATIONS

The earthworks are to be carried out in general accordance with AS3798-2007 *'Guidelines on earthworks for commercial & residential developments'*.

The specification requirements were that fill materials are to be placed and compacted to a density ratio of not less than 95% standard compaction as determined by AS 1289 "*Methods of Testing Soils for Engineering Purposes*".

3 SITE INSPECTION & TESTING

3.1 Existing Surface Assessments

Prior to commencement of filling, Construction Sciences confirmed that all unsuitable and weaker material such as top soil, silt, uncontrolled or loose soil, organic effected material and other wet areas had been appropriately stripped in accordance with AS 3798-2007. The exposed surface after removal of unsuitable material was compacted and checked for soft areas by proof rolling.

Where no movement or vertical deflection was detected, the stripped surface was assessed to be suitable for the placement of fill.

The site was found to be a relatively flat after the stripping took place, the area beneath lots 2719 through to 2722 had an existing water storage dam that was filled during the Level 1 fill supervision, all unsuitable material was stripped back to a suitable foundation before being filled to the finished surface level. The approximate dimensions of the dam were 35m long (across the length of the properties), 45m wide (across the widths of the properties) and 1.4m deep.

3.2 Fill Placement

All fill material on site was thoroughly inspected by Construction Sciences site representative to ensure it meets the **"suitable material"** requirements outlined in AS3798-2007. The fill was in-situ material sourced on-site and checked to ensure it was a **"suitable material"**.

The fill material typically comprised of:

- Insitu, Silty CLAY, medium - high plasticity, Light Brown, some traces of gravel.

Placement of fill was carried out using the following plants:

- 1* Excavator
- 1* Sheep-foot compactor.
- 1* Grader
- 1* Water Cart

The fill material was spread in near-horizontal layers, and compacted in successive layers, using a sheep-foot compactor.

3.3 Compaction Control Testing

Compaction control tests were carried out at regular intervals throughout the placement of fill in accordance with the minimum test frequency recommendations included in AS3798-2007 *'Guidelines on Earthworks for commercial and residential developments'*.

In-situ density tests were conducted using a nuclear density/moisture meter in accordance with AS 1289 5.8.1 "Determination of field density and field moisture content of a soil a nuclear surface moisture-density gauge".

Disturbed samples were taken from each density test site and tested at Construction Sciences' NATA accredited soil laboratory, in accordance with the Hilf rapid compaction method, in accordance with AS 1289.5.7.1.

A total fifty six (56) field density tests were carried out throughout the earthworks as presented below in Table 3-1. These fifty six (56) tests equates to one test to approximately every 454m^3 of fill placed for the project.

Table 3-1 Summary of Field Density Test Results

Stage	Successful Test Numbers	Mean Density (%)	Standard Deviation (%)
25	56	98.2	0.735

All density test results carried out in the engineered fill material are included in Appendix B. A summary of test results is presented in below in Table 3-2.

Table 3-2 Summary of Density Testing

No	Sample Number	Report Number	Date	Density Ratio (%)
1	14874/S/74858	14874/R/35241-1	6/04/2017	98.0
2	14874/S/74859	14874/R/35241-1	6/04/2017	99.5
3	14874/S/74860	14874/R/35241-1	6/04/2017	99.5
4	14874/S/74861	14874/R/35241-1	6/04/2017	99.5
5	14874/S/115760	14874/R48801-1	19/10/2017	101.0
6	14874/S/115761	14874/R48801-1	19/10/2017	99.5
7	14874/S/115762	14874/R48801-1	19/10/2017	99.5
8	14874/S/115763	14874/R48801-1	19/10/2017	99.0
9	14874/S/115770	14874/R48802-1	19/10/2017	98.5
10	14874/S/115771	14874/R48802-1	19/10/2017	98.0
11	14874/S/115772	14874/R48802-1	19/10/2017	98.0
12	14874/S/115773	14874/R48802-1	19/10/2017	97.5
13	14874/S/115774	14874/R48802-1	19/10/2017	98.0
14	14874/S/115775	14874/R48802-1	19/10/2017	97.0
15	14874/S/115834	14874/R48803-1	19/10/2017	97.5
16	14874/S/115835	14874/R48803-1	19/10/2017	98.5
17	14874/S/115836	14874/R48803-1	19/10/2017	98.5
18	14874/S/115837	14874/R48803-1	19/10/2017	98.0
19	14874/S/115838	14874/R48803-1	19/10/2017	98.5
20	14874/S/115839	14874/R48803-1	19/10/2017	98.5
21	14874/S/115850	14874/R48804-1	19/10/2017	98.0
22	14874/S/115851	14874/R48804-1	19/10/2017	97.5
23	14874/S/115852	14874/R48804-1	19/10/2017	98.5
24	14874/S/115853	14874/R48804-1	19/10/2017	98.0
25	14874/S/115854	14874/R48804-1	19/10/2017	97.5
26	14874/S/115855	14874/R48804-1	19/10/2017	98.0
27	14874/S/115859	14874/R/48807-1	19/10/2017	98.5
28	14874/S/115860	14874/R/48807-1	19/10/2017	97.5
29	14874/S/115861	14874/R/48807-1	19/10/2017	98.0
30	14874/S/115862	14874/R/48807-1	19/10/2017	98.0
31	14874/S/115863	14874/R/48807-1	19/10/2017	97.5
32	14874/S/115864	14874/R/48807-1	19/10/2017	98.0
33	14874/S/115865	14874/R/48809-1	19/10/2017	98.5
34	14874/S/115866	14874/R/48809-1	19/10/2017	98.0
35	14874/S/115867	14874/R/48809-1	19/10/2017	97.5
36	14874/S/115868	14874/R/48809-1	19/10/2017	98.0
37	14874/S/115869	14874/R/48809-1	19/10/2017	98.5
38	14874/S/115870	14874/R/48809-1	19/10/2017	97.0
39	14874/S/115871	14874/R/48815-1	19/10/2017	97.5
40	14874/S/115872	14874/R/48815-1	19/10/2017	97.5
41	14874/S/115873	14874/R/48815-1	19/10/2017	97.5
42	14874/S/115874	14874/R/48815-1	19/10/2017	98.5

Table continued on p.7

Table 3-2 Summary of Density Testing Continued…

No	Sample Number	Report Number	Date	Density Ratio (%)
43	14874/S/115875	14874/R/48815-1	19/10/2017	97.5
44	14874/S/115876	14874/R/48815-1	19/10/2017	98.5
45	14874/S/115897	14874/R/48821-1	19/10/2017	99.0
46	14874/S/115898	14874/R/48821-1	19/10/2017	98.5
47	14874/S/115899	14874/R/48821-1	19/10/2017	97.5
48	14874/S/115900	14874/R/48821-1	19/10/2017	98.0
49	14874/S/115901	14874/R/48821-1	19/10/2017	98.0
50	14874/S/115902	14874/R/48821-1	19/10/2017	98.5
51	14874/S115904	14874/R/48818-1	19/10/2017	98.0
52	14874/S115905	14874/R/48818-1	19/10/2017	98.0
53	14874/S115906	14874/R/48818-1	19/10/2017	98.5
54	14874/S115907	14874/R/48818-1	19/10/2017	97.5
55	14874/S115908	14874/R/48818-1	19/10/2017	97.5
56	14874/S115909	14874/R/48818-1	19/10/2017	97.5
Results	**Mean Density (%)**	**Standard Deviation (%)**	**Lowest Result**	**Highest Result**
56	98.2	0.735	97.0	101.0

4 GENERAL STATEMENT OF COMPLIANCE

It is considered that the placement of fill material at the Merrifield Estate Development – Stage 25 was carried out in accordance with AS3798-2007 "Guidelines on earthworks for commercial and residential developments". It is concluded that the fill was compacted to a density ratio not less than the specified requirement.

5 LIMIT OF LIABILITY

This report has been produced for, and is the property of our client BMD Urban Pty Ltd.

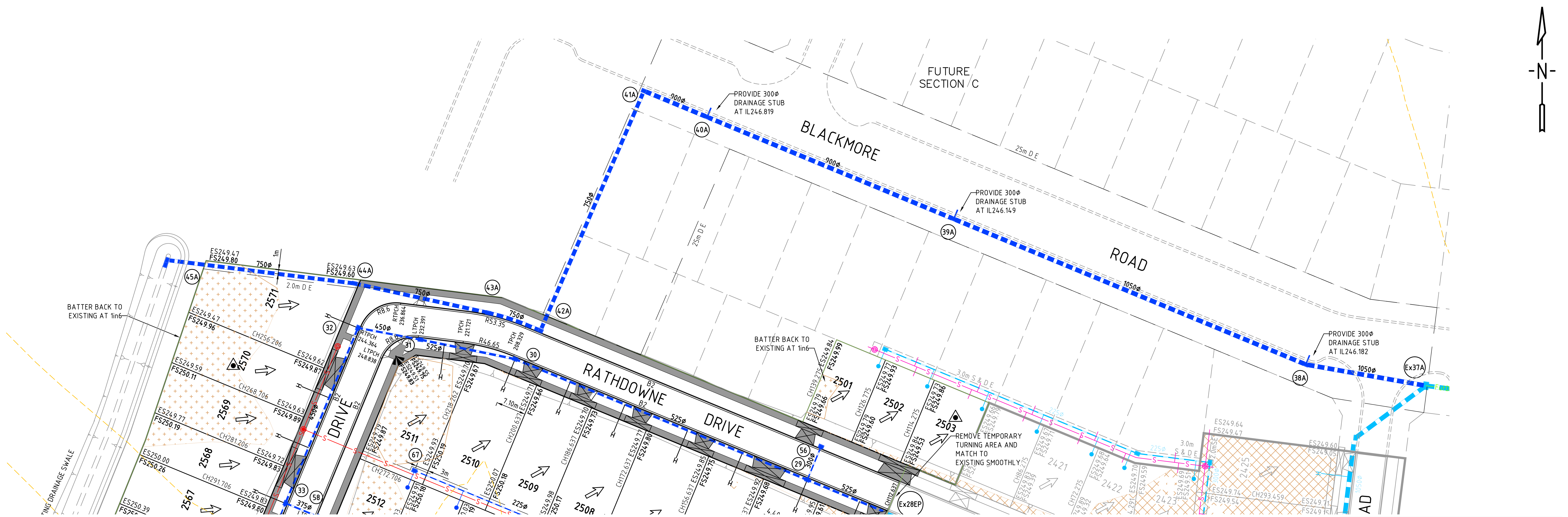
Construction Sciences accepts no liability to any third party, and will not enter into any communication with a third party regarding this report.

Appendix A

3 Pages

Site Location Plan

- **Stage 25**



FOR CONTINUATION REFER TO P115-25-RD200

H 1 : 500
@ A1
0 5 10 20 30 40

LEGEND - DETAIL

- LOT GRADE
- ES44.26 EXISTING SURFACE LEVEL
- FS44.60 FINISHED SURFACE LEVEL
- B44.60 TOP OF BATTER LEVEL
- PERMANENT SURVEY MARK
- TEMPORARY BENCH MARK
- REMOVE EX TREE
- PROPOSED DRAINAGE
- EXISTING DRAINAGE
- TABLE DRAIN
- PROPERTY INLET
- HOUSE DRAIN
- 1 SWD PIT NUMBERS
- EXS EXISTING SEWER
- S PROPOSED SEWER
- CUT >150mm DEPTH
- FILL >300mm DEPTH

WARNING

NO DRAINAGE WORKS SHALL COMMENCE UNTIL THE CONTRACTOR CONFIRMS INVERT LEVEL OF ALL EXISTING DRAINS

WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. A MOCS ENQUIRY ON 1100 MUST BE MADE BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS.

REV	DESCRIPTION	APPROVED	DATE
0	FOR CONSTRUCTION	GR	05.04.17
A	COUNCIL COMMENTS	GR	09.03.17

DRAWN: L. APAP
DESIGNED: C.J.SANTOS
APPROVED: G. ROMANCZ

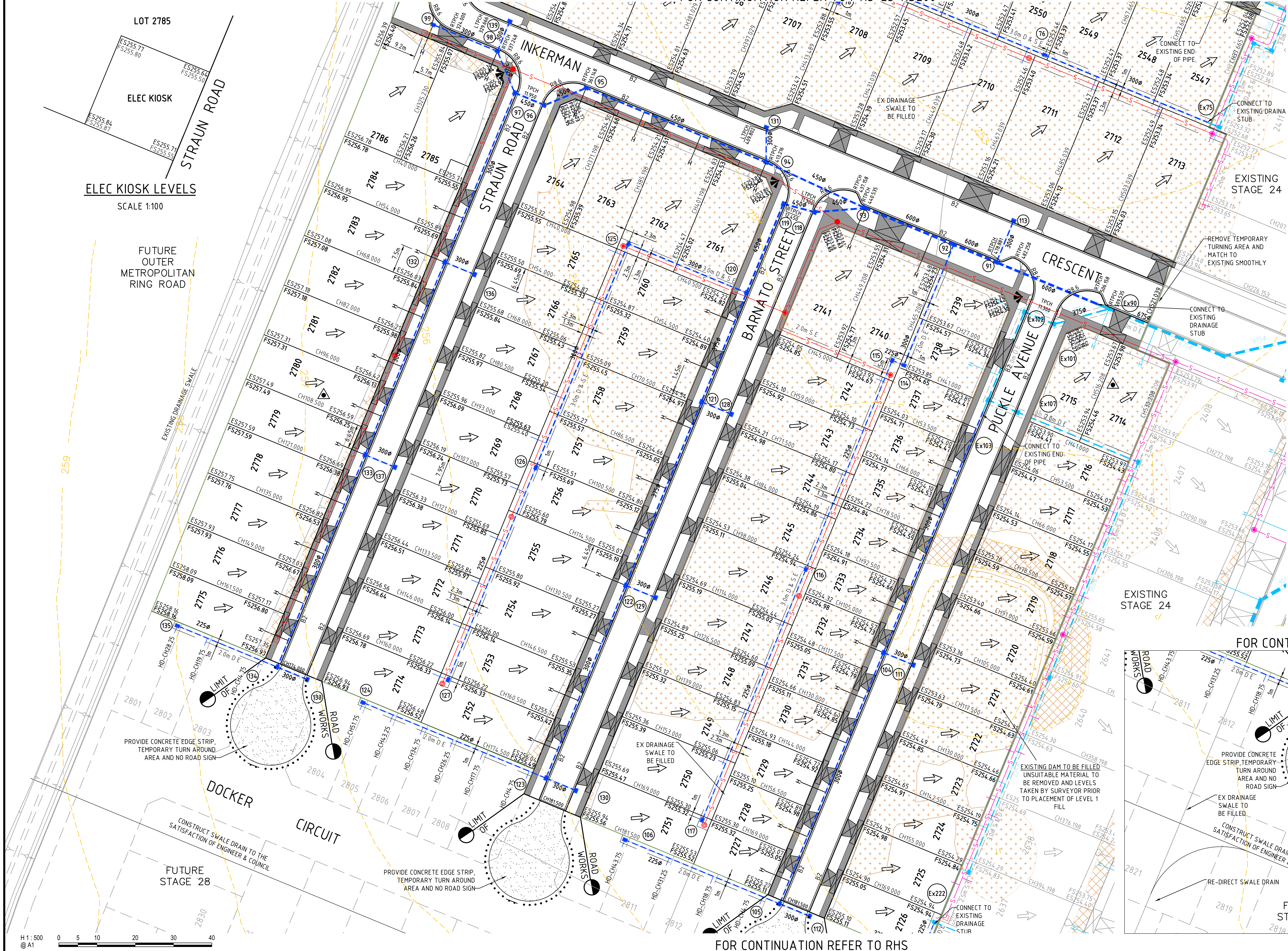
CLIENT: merrifield MAB GPC

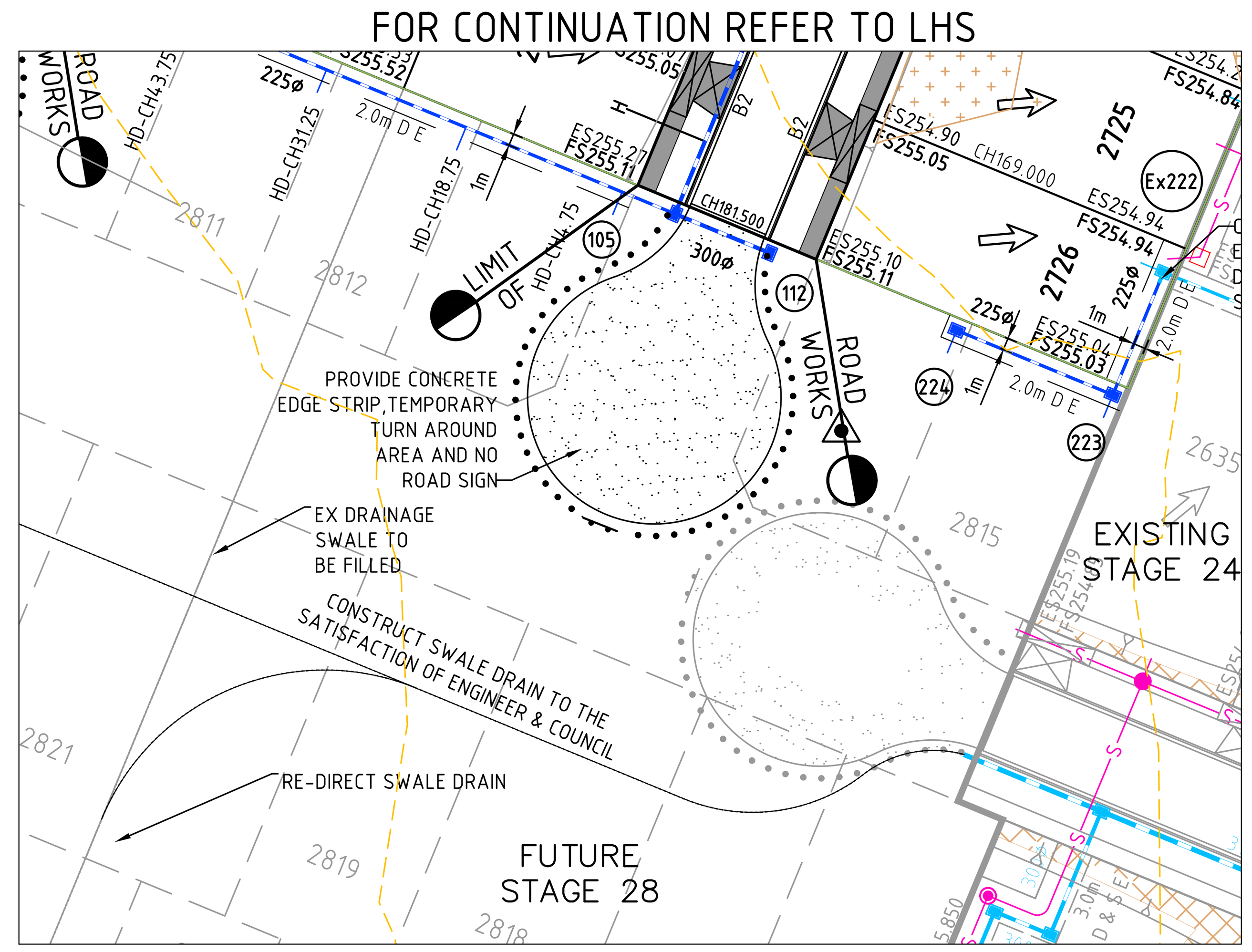
verve
Verve Projects Pty Ltd
Level 1 173 Burke Road
Glen Iris VIC 3146
T 03 8573 1500
verveprojects.com

COUNCIL: HUME CITY COUNCIL
PROJECT: MERRIFIELD LIVINGS - SECTION B STAGE 25 MICKLEHAM
TITLE: DETAIL PLAN - 3
ISSUE: CONSTRUCTION

MELWAY REF:	PROJECT No:	DWG No:	REVISION:
366 D3/E4	P115-25	RD202	0

FOR CONTINUATION REFER TO P115-25-RD200





FOR CONTINUATION REFER TO RHS

LEGEND - DETAIL

	LOT GRADE
ES44.26	EXISTING SURFACE LEVEL
FS44.60	FINISHED SURFACE LEVEL
B44.60	TOP OF BATTER LEVEL
	PERMANENT SURVEY MARK
	TEMPORARY BENCH MARK
	REMOVE EX TREE
	PROPOSED DRAINAGE
	EXISTING DRAINAGE
	TABLE DRAIN
	PROPERTY INLET
	HOUSE DRAIN
1	SWD PIT NUMBERS
EXS	EXISTING SEWER
S	PROPOSED SEWER
	CUT >150mm DEPTH
	FILL >300mm DEPTH

N

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REV	DESCRIPTION	APPROVED	DATE
0	FOR CONSTRUCTION	GR	05.04.17
B	COUNCIL COMMENTS	GR	09.03.17
A	PRELIMINARY ISSUE	GR	28.10.16

DRAWN: L. APAP
DESIGNED: C.J.SANTOS
APPROVED: G. ROMANCZ

CLIENT: merrifield MAB GPC

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COUNCIL: HUME CITY COUNCIL

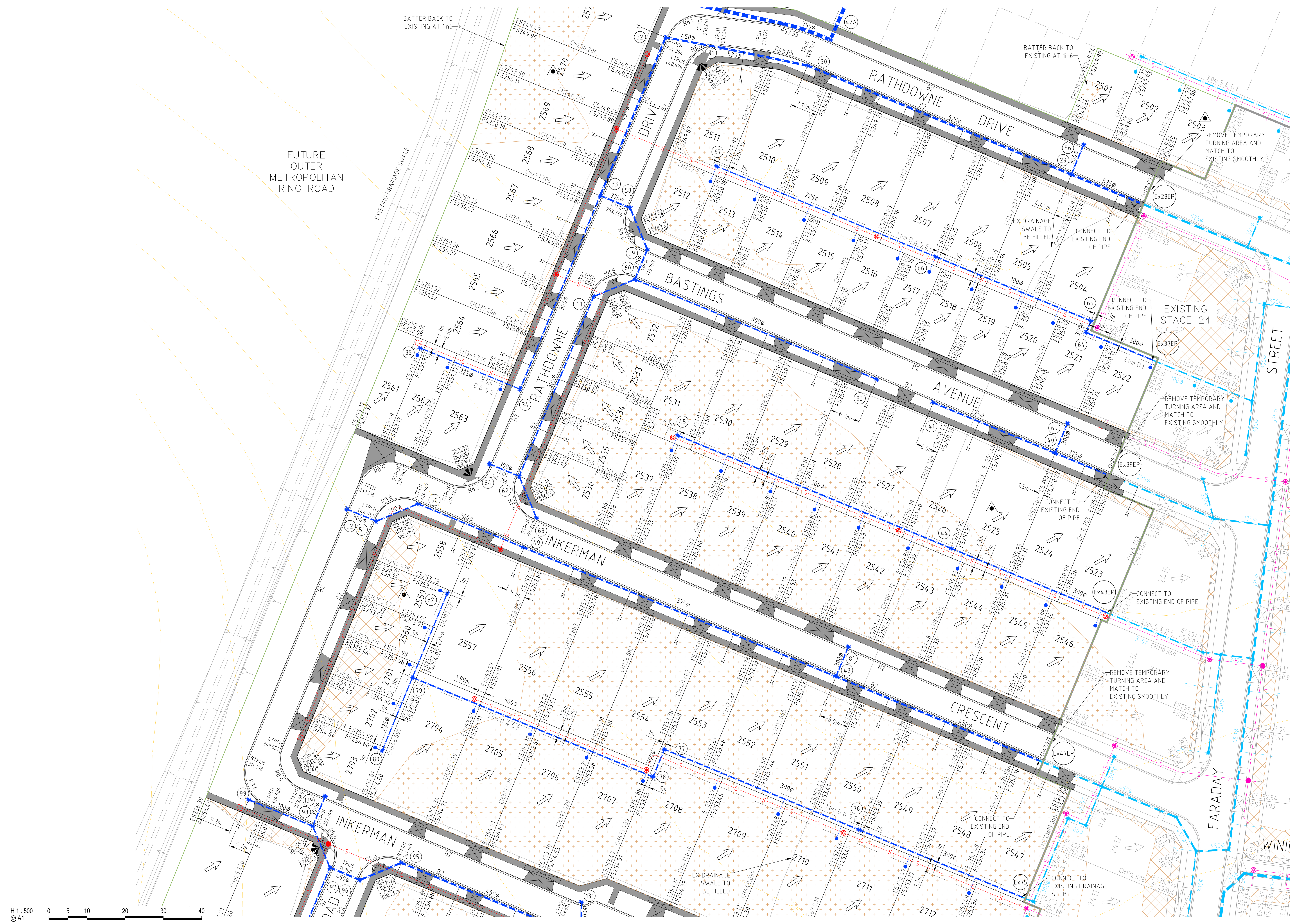
PROJECT: MERRIFIELD LIVINGS - SECTION B STAGE 25 MICKLEHAM

TITLE: DETAIL PLAN - 2

ISSUE: CONSTRUCTION

MELWAY REF:	PROJECT No:	DWG No:	REVISION:
366 D3/E4	P115-25	RD201	0

FOR CONTINUATION REFER TO P115-25-RD202



FOR CONTINUATION REFER TO P115-25-RD201

LEGEND - DETAIL

- LOT GRADE
- ES44.26 EXISTING SURFACE LEVEL
- FS44.60 FINISHED SURFACE LEVEL
- B44.60 TOP OF BATTER LEVEL
- PERMANENT SURVEY MARK
- TEMPORARY BENCH MARK
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COUNCIL: HUME CITY COUNCIL

PROJECT: MERRIFIELD LIVINGS - SECTION B
STAGE 25
MICKLEHAM

TITLE: DETAIL PLAN - 1

ISSUE: CONSTRUCTION

MELWAY REF:	PROJECT No:	DWG No:	REVISION:
366 D3/E4	P115-25	RD200	0

Appendix B

38 Pages

Testing Results

- **Hilf Density Locations**
- **Hilf Density Ratio (%)**

Construction Sciences

MELBOURNE

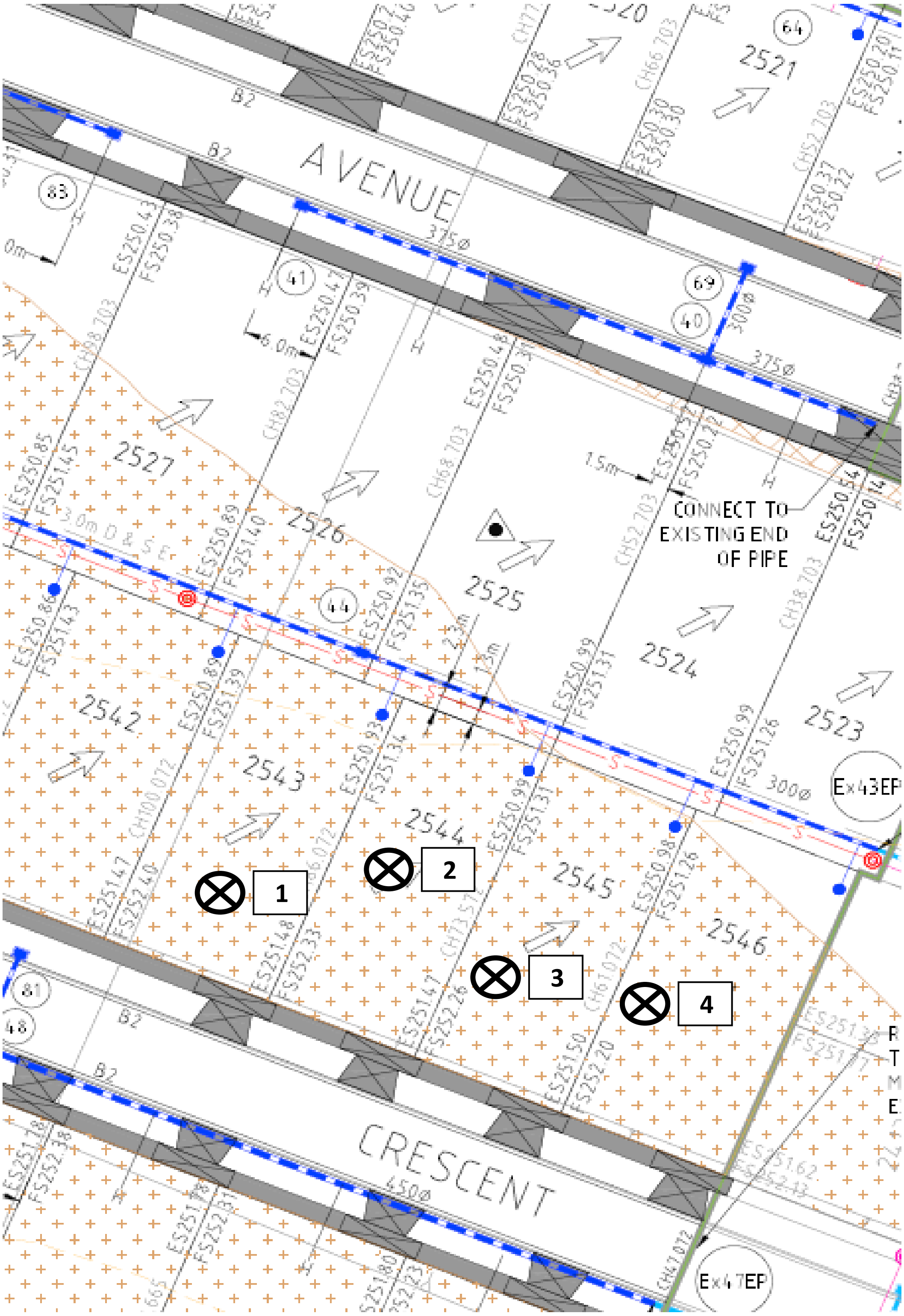
Not to Scale
Dimensions in Approx. Metres

Site Location Sketch

Test site locations only
NOT TO SCALE

Client:	BMD Urban Pty Ltd
Job No.	14874/P/621
Test Request No.	T-21140
Date Tested:	6/04/2017

North



Construction Sciences

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Address:
60 - 64 Vella Drive,
Sunshine West VIC 3020

Laboratory: Melbourne Laboratory
Phone: 0393649301 Fax: 0393383255

Email: Melbourne@constructionsciences.net

LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/35241-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/21140
Component:	Refer to Map	Client Reference/s:	Density Testing 6/4/17
Area Description:	Stage 25	Report Date / Page:	28/04/2017 Page 1 of 2

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/74858	14874/S/74859	14874/S/74860	14874/S/74861
ID / Client ID	Refer to Map	Refer to Map	Refer to Map	Refer to Map
Lot Number	-	-	-	-
Date / Time Tested	6/04/2017	6/04/2017	6/04/2017	6/04/2017
Material Source	Onsite	Onsite	Onsite	Onsite
Material Type	Insitu	Insitu	Insitu	Insitu
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b
Depths: Test / Nom / Actual (mm)	175 / 200 / 200	175 / 200 / 200	175 / 200 / 200	175 / 200 / 200
Standard or Modified	Standard	Standard	Standard	Standard
Layer Number	Layer 1	Layer 1	Layer 1	Layer 1
Location Number	1	2	3	4
Test Fraction (mm)	< 19.0 mm	< 19.0 mm	< 19.0 mm	< 19.0 mm
Sample Oversize (%)	0	0	0	0
Density of Oversize (t/m^3)	-	-	-	-
Compaction Sample Number	14874/S/74858	14874/S/74859	14874/S/74860	14874/S/74861
Sample Description	Insitu	Insitu	Insitu	Insitu
Moisture Test Results:				
Field Moisture Content (%)	22.8	22.6	23.7	22.8
Adjusted / Moisture Variation (%)	3.0	2.5	3.0	2.5
Optimum Moisture Content (%)	26.0	25.5	27.0	25.5
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)
Moisture Ratio (%)	88.0	89.0	88.0	90.0
Density Test Results:				
Field Wet Density (t/m^3)	1.82	1.88	1.87	1.84
Adj/Peak Conv Wet Density (t/m^3)	1.86	1.89	1.88	1.85
Density Ratio Required (%)	95	95	95	95
Hilf Density Ratio (%)	98.0	99.5	99.5	99.5

Remarks

NATA

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
Accredited for compliance with ISO/IEC 17025 - Testing

Accreditation Number: 1986
Corporate Site Number: 14874

Approved Signatory: Daniel Boyd
Form ID: W5ASRepSum Rev 3

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Laboratory: Melbourne Laboratory
Phone: 0393649301 Fax: 0393383255

Email: Melbourne@constructionsciences.net

LOT REPORT - WET DENSITY RATIO

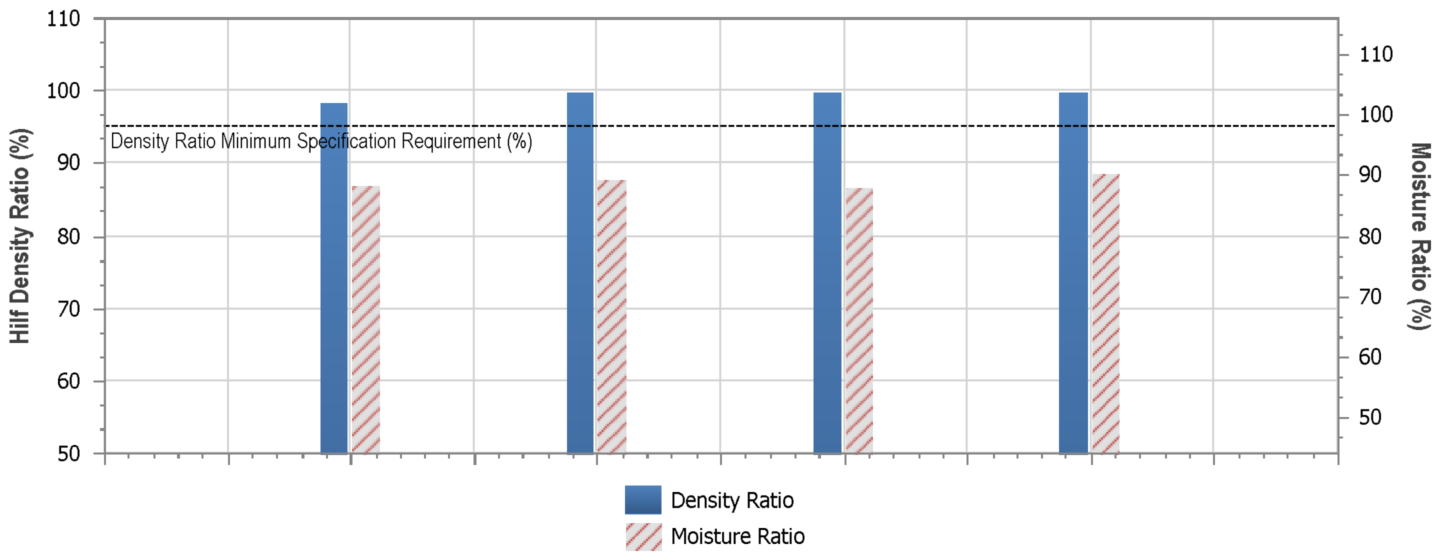
Client:	BMD Urban Pty Ltd	Report Number:	14874/R/35241-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/21140
Component:	Refer to Map	Client Reference/s:	Density Testing 6/4/17
Area Description:	Stage 25	Report Date / Page:	28/04/2017 Page 2 of 2

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1
Statistical Analysis Test Method:	Lot Average (Lot average calculations are not covered by NATA endorsement)

Nuclear Gauge Calibration Details

Calibration Number	-	Material Source	-
Calibration Last Updated	-	Material Type	-
Nominated Calibration Layer Depth (mm)	-	-	

LOT TEST RESULT SUMMARY



Tests in Lot = 4	Lot Minimum	Lot Maximum	Lot Mean	Standard Deviation
Moisture Ratio (%)	87.8	90.1	88.7	1.057
Hilf Density Ratio (%)	98.0	99.6	99.1	0.755

Lot Number:	-
Mean Density Ratio (%):	99.1
Mean Moisture Ratio (%):	88.7

Remarks

NATA

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
Accredited for compliance with ISO/IEC 17025 - Testing

Accreditation Number: 1986
Corporate Site Number: 14874

DanBoyd

Approved Signatory: Daniel Boyd
Form ID: W5ASRepSum Rev 3

Construction Sciences

MELBOURNE

Not to Scale
Dimensions in Approx. Metres

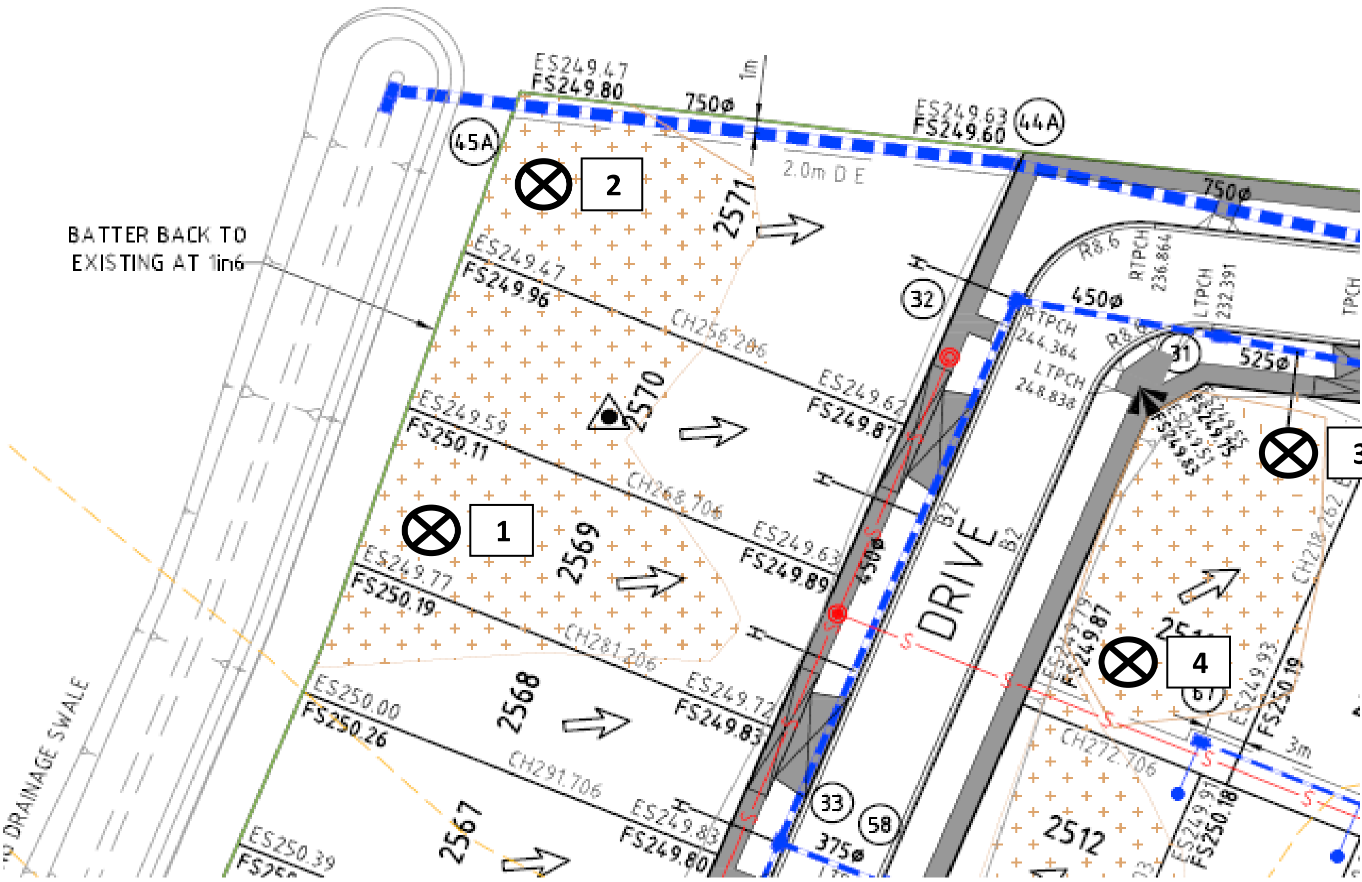
Site Location Sketch

Test site locations only

NOT TO SCALE

North

Client:	BMD Urban Pty Ltd
Job No.	14874/P/621
Test Request No.	T-28411
Date Tested:	19/10/2017



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Email: Melbourne@constructionsciences.net

LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48801-1	
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621	
Project:	Merrifield Estate - Stage 25	Lot Number:		
Location:	Merrifield	Internal Test Request:	14874/T/28411	
Component:		Client Reference/s:	Level 1 19/10	
Area Description:	STG 25	Report Date / Page:	25/10/2017	Page 1 of 2

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115760	14874/S/115761	14874/S/115762	14874/S/115763
ID / Client ID	Refer to Map	Refer to Map	Refer to Map	Refer to Map
Lot Number	-	-	-	-
Date / Time Tested	19/10/2017	19/10/2017	19/10/2017	19/10/2017
Material Source	Onsite	Onsite	Onsite	Onsite
Material Type	Clay	Clay	Clay	Clay
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b
Depths: Test / Nom / Actual (mm)	175 / 200 / 200	175 / 200 / 200	175 / 200 / 200	175 / 200 / 200
Standard or Modified	Standard	Standard	Standard	Standard
Layer Number	1	1	1	1
Location Number	1	2	3	4
Test Fraction (mm)	< 19.0 mm	< 19.0 mm	< 19.0 mm	< 19.0 mm
Sample Oversize (%)	0	0	0	0
Density of Oversize (t/m³)	-	-	-	-
Compaction Sample Number	14874/S/115760	14874/S/115761	14874/S/115762	14874/S/115763
Sample Description	Clay	Clay	Clay	Clay
Moisture Test Results:				
Field Moisture Content (%)	13.9	14.1	14.6	13.2
Adjusted / Moisture Variation (%)	2.5	2.5	2.5	2.5
Optimum Moisture Content (%)	16.5	16.5	17.0	15.5
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)
Moisture Ratio (%)	84.0	85.5	85.5	84.0
Density Test Results:				
Field Wet Density (t/m³)	2.03	2.03	2.04	2.04
Adj/Peak Conv Wet Density (t/m³)	2.01	2.04	2.05	2.06
Density Ratio Required (%)	95	95	95	95
Hilf Density Ratio (%)	101.0	99.5	99.5	99.0

Remarks

NATA

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Accredited for compliance with ISO/IEC 17025 - Testing

Accreditation Number: 1986
Corporate Site Number: 14874

Approved Signatory: Daniel Boyd
Form ID: W5ASRepSum Rev 4

Construction Sciences

Construction Sciences Pty Ltd
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Address:
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Laboratory: Melbourne Laboratory
Phone: 0393649301 Fax: 0393383255
Email: Melbourne@constructionsciences.net

LOT REPORT - WET DENSITY RATIO

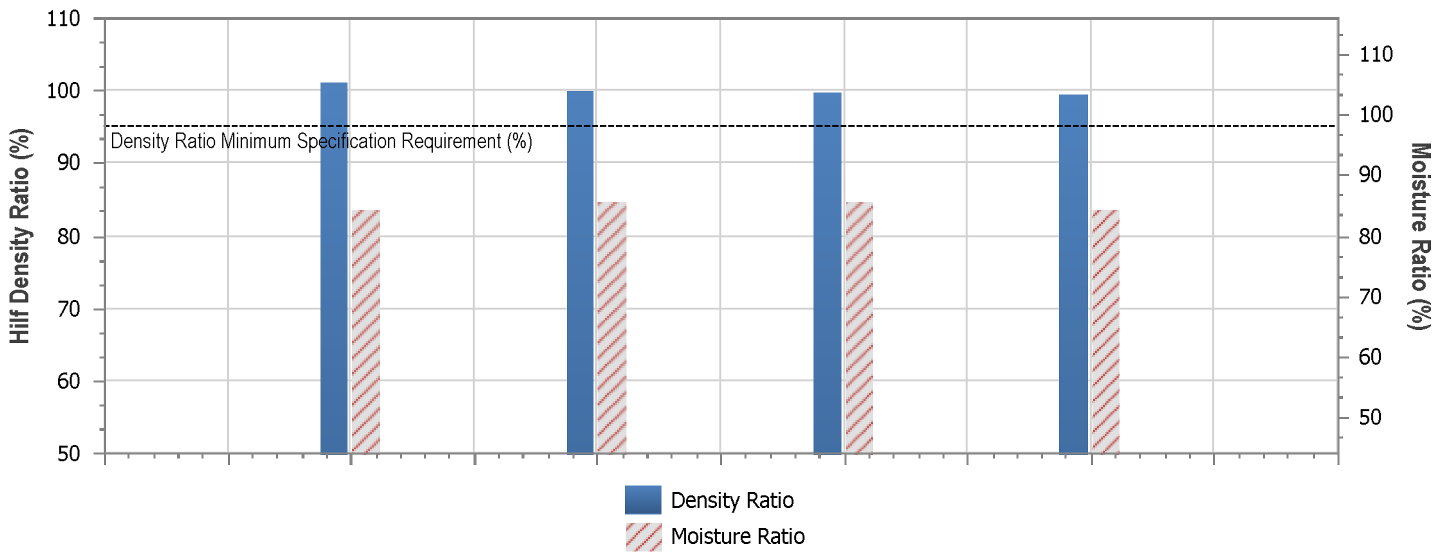
Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48801-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28411
Component:		Client Reference/s:	Level 1 19/10
Area Description:	STG 25	Report Date / Page:	25/10/2017 Page 2 of 2

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1
Statistical Analysis Test Method:	Lot Average (Lot average calculations are not covered by NATA endorsement)

Nuclear Gauge Calibration Details

Calibration Number	-	Material Source	-
Calibration Last Updated	-	Material Type	-
Nominated Calibration Layer Depth (mm)	-	-	

LOT TEST RESULT SUMMARY



Tests in Lot = 4	Lot Minimum	Lot Maximum	Lot Mean	Standard Deviation
Moisture Ratio (%)	84.1	85.5	84.8	0.753
Hilf Density Ratio (%)	99.2	101.0	99.8	0.796

Lot Number:	-
Mean Density Ratio (%):	99.8
Mean Moisture Ratio (%):	84.8

Remarks

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Corporate Site Number: 14874

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Approved Signatory: Daniel Boyd
Form ID: W5ASRepSum Rev 4

Construction Sciences

MELBOURNE

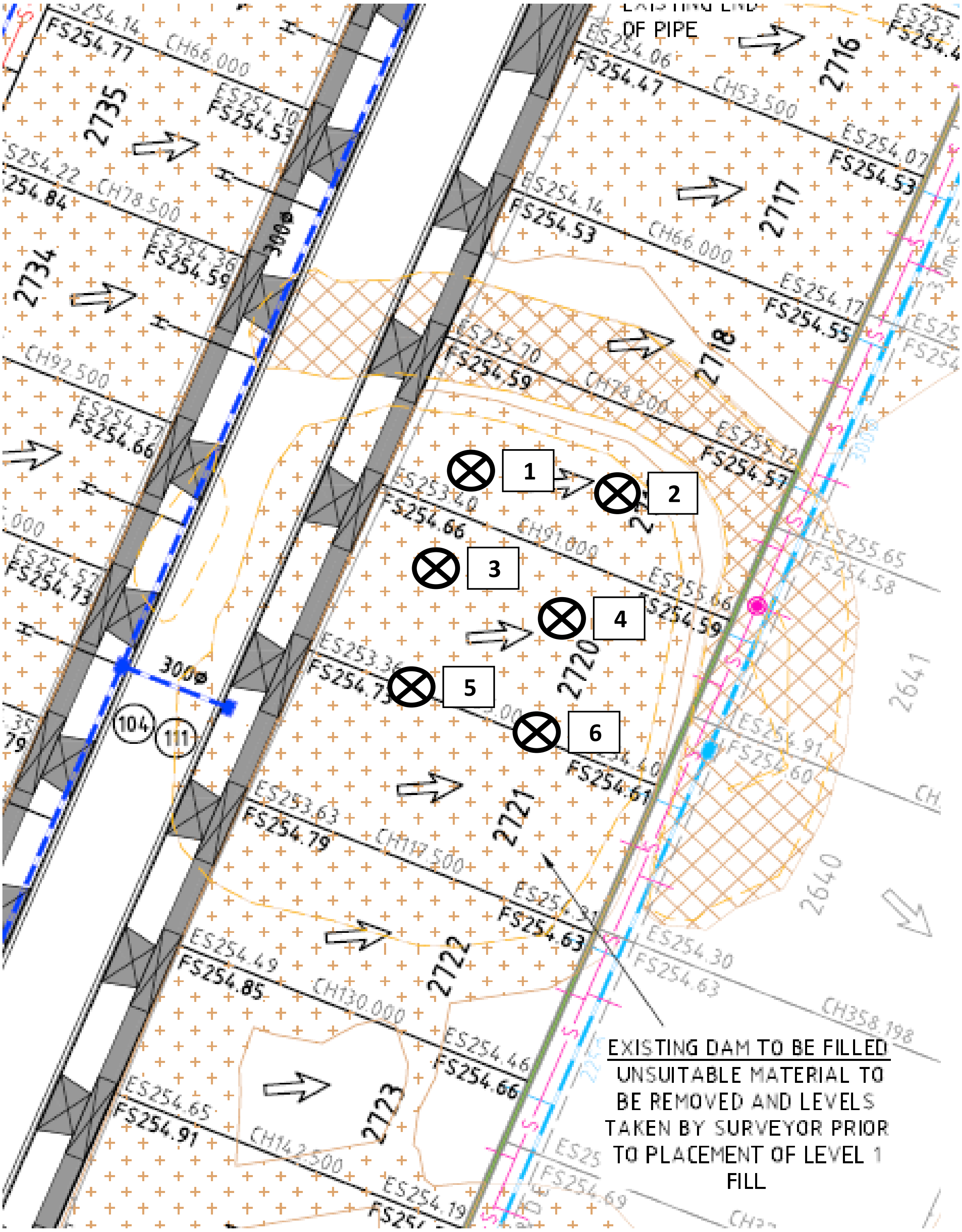
Not to Scale
Dimensions in Approx. Metres

Site Location Sketch

Test site locations only
NOT TO SCALE

North

Client:	BMD Urban Pty Ltd
Job No.	14874/P/621
Test Request No.	T-28417
Date Tested:	19/10/2017



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LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48802-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28417
Component:		Client Reference/s:	Level 1 19/10
Area Description:	Stg 25	Report Date / Page:	25/10/2017 Page 1 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115770	14874/S/115771	14874/S/115772	14874/S/115773
ID / Client ID	Refer to Map	Refer to Map	Refer to Map	Refer to Map
Lot Number	-	-	-	-
Date / Time Tested	19/10/2017	19/10/2017	19/10/2017	19/10/2017
Material Source	Onsite	Onsite	Onsite	Onsite
Material Type	Clay	Clay	Clay	Clay
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b
Depths: Test / Nom / Actual (mm)	175 / 200 / 200	175 / 200 / -	175 / 200 / -	175 / 200 / -
Standard or Modified	Standard	Standard	Standard	Standard
Layer Number	1	2	3	4
Location Number	1	2	3	4
Test Fraction (mm)	< 19.0 mm	< 19.0 mm	< 19.0 mm	< 19.0 mm
Sample Oversize (%)	0	0	0	0
Density of Oversize (t/m³)	-	-	-	-
Compaction Sample Number	14874/S/115770	14874/S/115771	14874/S/115772	14874/S/115773
Sample Description	Clay	Clay	Clay	Clay
Moisture Test Results:				
Field Moisture Content (%)	13.0	13.4	13.7	12.9
Adjusted / Moisture Variation (%)	2.5	2.5	2.5	2.5
Optimum Moisture Content (%)	15.5	16.0	16.0	15.5
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)
Moisture Ratio (%)	84.0	85.0	84.5	83.0
Density Test Results:				
Field Wet Density (t/m³)	2.04	2.04	2.04	2.03
Adj/Peak Conv Wet Density (t/m³)	2.07	2.08	2.08	2.09
Density Ratio Required (%)	95	95	95	95
Hilf Density Ratio (%)	98.5	98.0	98.0	97.5

Remarks

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LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48802-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28417
Component:		Client Reference/s:	Level 1 19/10
Area Description:	Stg 25	Report Date / Page:	25/10/2017 Page 2 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115774	14874/S/115775		
ID / Client ID	Refer to Map	Refer to Map		
Lot Number	-	-		
Date / Time Tested	19/10/2017	19/10/2017		
Material Source	Onsite	Onsite		
Material Type	Clay	Clay		
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b		
Depths: Test / Nom / Actual (mm)	175 / 200 / -	175 / 200 / -		
Standard or Modified	Standard	Standard		
Layer Number	5	5		
Location Number	5	6		
Test Fraction (mm)	< 19.0 mm	< 19.0 mm		
Sample Oversize (%)	0	0		
Density of Oversize (t/m³)	-	-		
Compaction Sample Number	14874/S/115774	14874/S/115775		
Sample Description	Clay	Clay		
Moisture Test Results:				
Field Moisture Content (%)	13.1	12.7		
Adjusted / Moisture Variation (%)	2.5	2.5		
Optimum Moisture Content (%)	15.5	15.5		
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)		
Moisture Ratio (%)	84.0	83.0		
Density Test Results:				
Field Wet Density (t/m³)	2.03	2.03		
Adj/Peak Conv Wet Density (t/m³)	2.07	2.09		
Density Ratio Required (%)	95	95		
Hilf Density Ratio (%)	98.0	97.0		

Remarks

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LOT REPORT - WET DENSITY RATIO

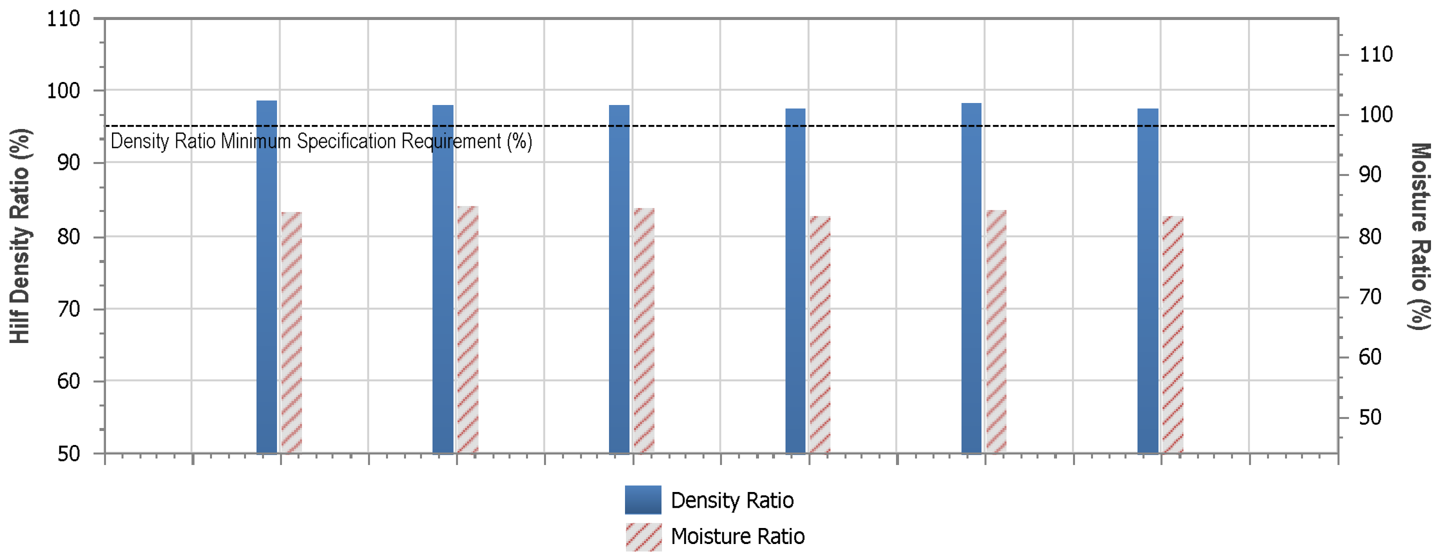
Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48802-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28417
Component:		Client Reference/s:	Level 1 19/10
Area Description:	Stg 25	Report Date / Page:	25/10/2017 Page 3 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1
Statistical Analysis Test Method:	Lot Average (Lot average calculations are not covered by NATA endorsement)

Nuclear Gauge Calibration Details

Calibration Number	-	Material Source	-
Calibration Last Updated	-	Material Type	-
Nominated Calibration Layer Depth (mm)	-		-

LOT TEST RESULT SUMMARY



Tests in Lot = 6	Lot Minimum	Lot Maximum	Lot Mean	Standard Deviation
Moisture Ratio (%)	83.0	84.8	83.9	0.722
Hilf Density Ratio (%)	97.2	98.5	97.8	0.490

Lot Number:	-
Mean Density Ratio (%):	97.8
Mean Moisture Ratio (%):	83.9

Remarks

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Construction Sciences

MELBOURNE

Not to Scale
Dimensions in Approx. Metres

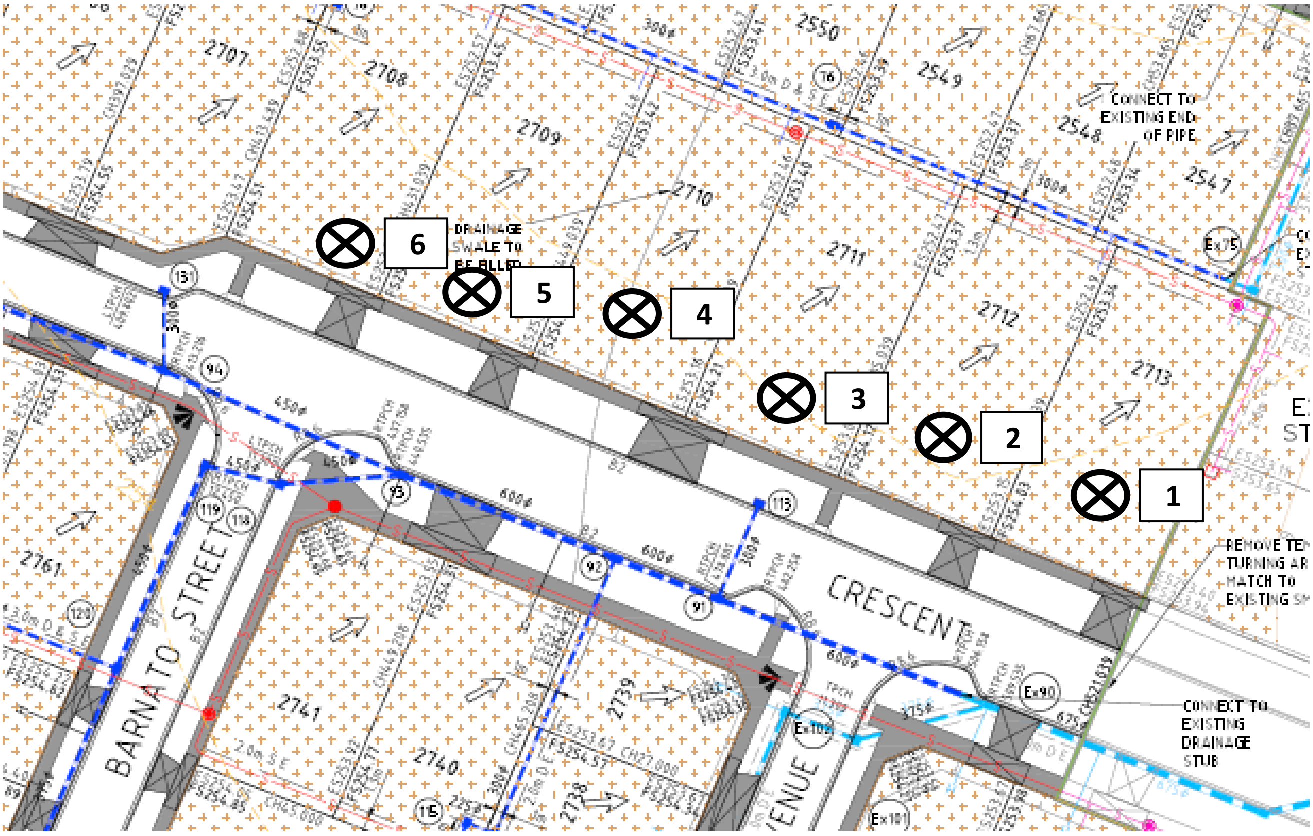
Site Location Sketch

Test site locations only

NOT TO SCALE

North

Client:	BMD Urban Pty Ltd
Job No.	14874/P/621
Test Request No.	T-28419
Date Tested:	19/10/2017



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LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48803-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28419
Component:		Client Reference/s:	Level 1 19/10
Area Description:	stg 25	Report Date / Page:	25/10/2017 Page 1 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115834	14874/S/115835	14874/S/115836	14874/S/115837
ID / Client ID	Refer to Map	Refer to Map	Refer to Map	Refer to Map
Lot Number	-	-	-	-
Date / Time Tested	19/10/2017	19/10/2017	19/10/2017	19/10/2017
Material Source	Onsite	Onsite	Onsite	Onsite
Material Type	Clay	Clay	Clay	Clay
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b
Depths: Test / Nom / Actual (mm)	175 / 200 / 200	175 / 200 / -	175 / 200 / -	175 / 200 / -
Standard or Modified	Standard	Standard	Standard	Standard
Layer Number	1	1	2	3
Location Number	1	2	3	4
Test Fraction (mm)	< 19.0 mm	< 19.0 mm	< 19.0 mm	< 19.0 mm
Sample Oversize (%)	0	0	0	0
Density of Oversize (t/m³)	-	-	-	-
Compaction Sample Number	14874/S/115834	14874/S/115835	14874/S/115836	14874/S/115837
Sample Description	Clay	Clay	Clay	Clay
Moisture Test Results:				
Field Moisture Content (%)	11.8	13.6	13.1	12.4
Adjusted / Moisture Variation (%)	2.5	2.5	2.5	2.5
Optimum Moisture Content (%)	14.5	16.0	15.5	15.0
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)
Moisture Ratio (%)	82.0	84.5	83.5	83.0
Density Test Results:				
Field Wet Density (t/m³)	2.04	2.04	2.04	2.04
Adj/Peak Conv Wet Density (t/m³)	2.09	2.08	2.07	2.08
Density Ratio Required (%)	95	95	95	95
Hilf Density Ratio (%)	97.5	98.5	98.5	98.0

Remarks

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LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48803-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28419
Component:		Client Reference/s:	Level 1 19/10
Area Description:	stg 25	Report Date / Page:	25/10/2017 Page 2 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115838	14874/S/115839		
ID / Client ID	Refer to Map	Refer to Map		
Lot Number	-	-		
Date / Time Tested	19/10/2017	19/10/2017		
Material Source	Onsite	Onsite		
Material Type	Clay	Clay		
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b		
Depths: Test / Nom / Actual (mm)	175 / 200 / -	175 / 200 / -		
Standard or Modified	Standard	Standard		
Layer Number	4	4		
Location Number	5	6		
Test Fraction (mm)	< 19.0 mm	< 19.0 mm		
Sample Oversize (%)	0	0		
Density of Oversize (t/m³)	-	-		
Compaction Sample Number	14874/S/115838	14874/S/115839		
Sample Description	Clay	Clay		
Moisture Test Results:				
Field Moisture Content (%)	13.9	13.3		
Adjusted / Moisture Variation (%)	2.5	2.5		
Optimum Moisture Content (%)	16.5	16.0		
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)		
Moisture Ratio (%)	85.0	84.0		
Density Test Results:				
Field Wet Density (t/m³)	2.04	2.03		
Adj/Peak Conv Wet Density (t/m³)	2.07	2.07		
Density Ratio Required (%)	95	95		
Hilf Density Ratio (%)	98.5	98.5		

Remarks

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LOT REPORT - WET DENSITY RATIO

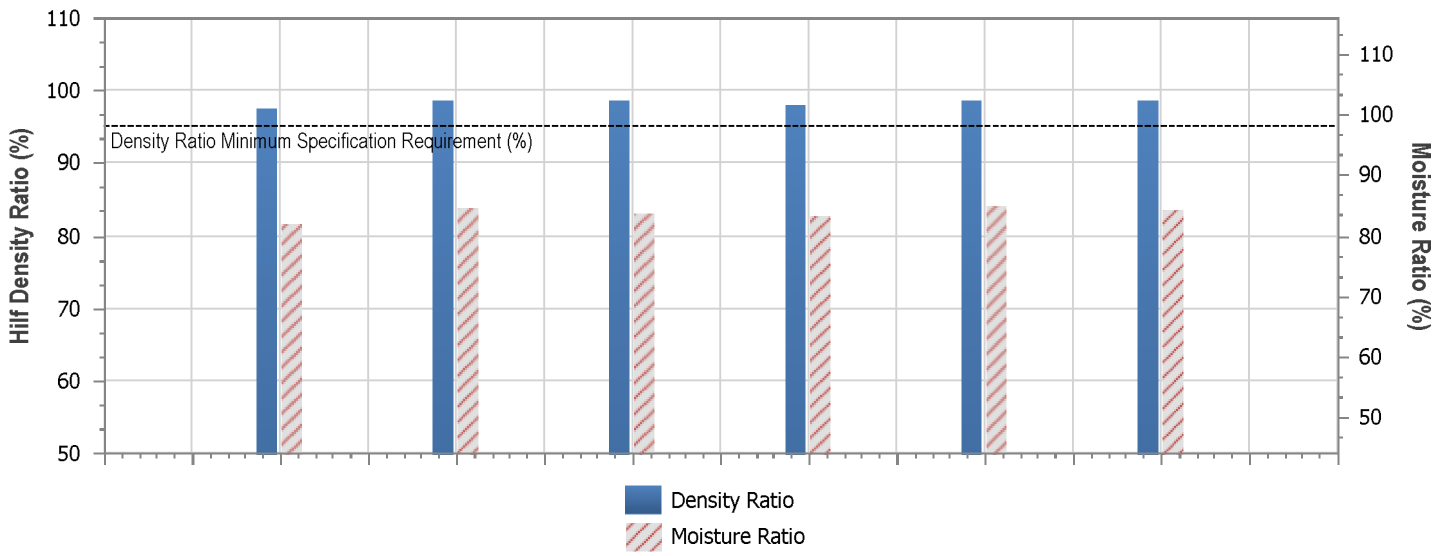
Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48803-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28419
Component:		Client Reference/s:	Level 1 19/10
Area Description:	stg 25	Report Date / Page:	25/10/2017 Page 3 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1
Statistical Analysis Test Method:	Lot Average (Lot average calculations are not covered by NATA endorsement)

Nuclear Gauge Calibration Details

Calibration Number	-	Material Source	-
Calibration Last Updated	-	Material Type	-
Nominated Calibration Layer Depth (mm)	-	-	

LOT TEST RESULT SUMMARY



Tests in Lot = 6	Lot Minimum	Lot Maximum	Lot Mean	Standard Deviation
Moisture Ratio (%)	81.9	84.8	83.7	1.066
Hilf Density Ratio (%)	97.4	98.4	98.1	0.410

Lot Number:	-
Mean Density Ratio (%):	98.1
Mean Moisture Ratio (%):	83.7

Remarks

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Construction Sciences

MELBOURNE

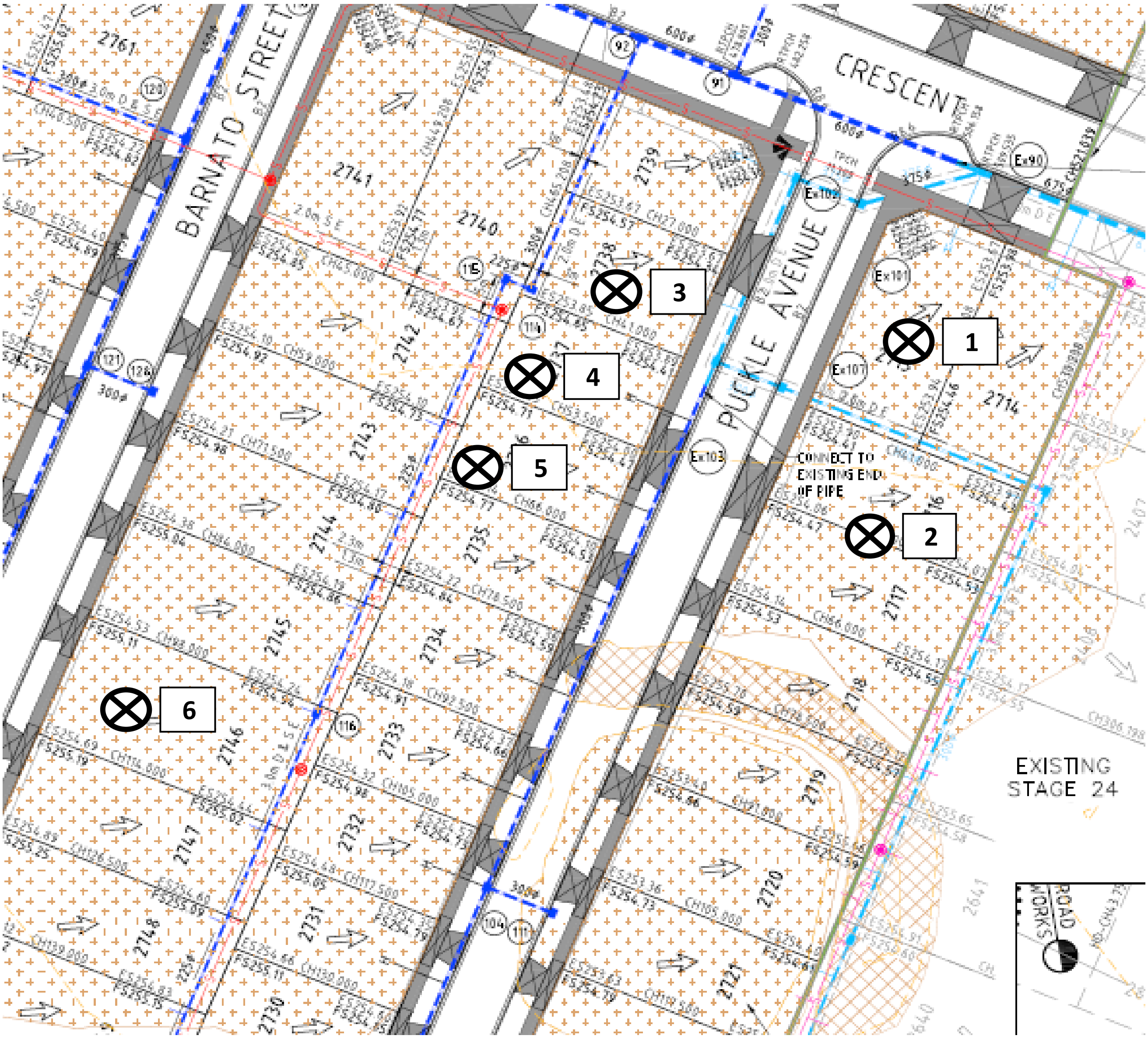
Not to Scale
Dimensions in Approx. Metres

Site Location Sketch

Test site locations only
NOT TO SCALE

North

Client:	BMD Urban Pty Ltd
Job No.	14874/P/621
Test Request No.	T-28433
Date Tested:	19/10/2017



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LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48804-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28433
Component:		Client Reference/s:	Level 1 19/10
Area Description:	STG 25	Report Date / Page:	25/10/2017 Page 1 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115850	14874/S/115851	14874/S/115852	14874/S/115853
ID / Client ID	Refer to Map	Refer to Map	Refer to Map	Refer to Map
Lot Number	-	-	-	-
Date / Time Tested	19/10/2017	19/10/2017	19/10/2017	19/10/2017
Material Source	Onsite	Onsite	Onsite	Onsite
Material Type	Clay	Clay	Clay	Clay
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b
Depths: Test / Nom / Actual (mm)	175 / 200 / 200	175 / 200 / -	175 / 200 / -	175 / 200 / -
Standard or Modified	Standard	Standard	Standard	Standard
Layer Number	1	2	3	4
Location Number	1	2	3	4
Test Fraction (mm)	< 19.0 mm	< 19.0 mm	< 19.0 mm	< 19.0 mm
Sample Oversize (%)	0	0	0	0
Density of Oversize (t/m³)	-	-	-	-
Compaction Sample Number	14874/S/115850	14874/S/115851	14874/S/115852	14874/S/115853
Sample Description	Clay	Clay	Clay	Clay
Moisture Test Results:				
Field Moisture Content (%)	13.6	13.0	13.3	14.7
Adjusted / Moisture Variation (%)	2.5	2.5	2.5	2.5
Optimum Moisture Content (%)	16.0	15.5	16.0	17.5
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)
Moisture Ratio (%)	84.5	84.0	84.0	85.0
Density Test Results:				
Field Wet Density (t/m³)	2.03	2.04	2.04	2.04
Adj/Peak Conv Wet Density (t/m³)	2.07	2.09	2.07	2.08
Density Ratio Required (%)	95	95	95	95
Hilf Density Ratio (%)	98.0	97.5	98.5	98.0

Remarks

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LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48804-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28433
Component:		Client Reference/s:	Level 1 19/10
Area Description:	STG 25	Report Date / Page:	25/10/2017 Page 2 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115854	14874/S/115855		
ID / Client ID	Refer to Map	Refer to Map		
Lot Number	-	-		
Date / Time Tested	19/10/2017	19/10/2017		
Material Source	Onsite	Onsite		
Material Type	Clay	Clay		
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b		
Depths: Test / Nom / Actual (mm)	175 / 200 / -	175 / 200 / -		
Standard or Modified	Standard	Standard		
Layer Number	4	3		
Location Number	5	6		
Test Fraction (mm)	< 19.0 mm	< 19.0 mm		
Sample Oversize (%)	0	0		
Density of Oversize (t/m³)	-	-		
Compaction Sample Number	14874/S/115854	14874/S/115855		
Sample Description	Clay	Clay		
Moisture Test Results:				
Field Moisture Content (%)	14.4	14.9		
Adjusted / Moisture Variation (%)	2.5	2.5		
Optimum Moisture Content (%)	17.0	17.5		
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)		
Moisture Ratio (%)	85.0	85.5		
Density Test Results:				
Field Wet Density (t/m³)	2.04	2.04		
Adj/Peak Conv Wet Density (t/m³)	2.09	2.08		
Density Ratio Required (%)	95	95		
Hilf Density Ratio (%)	97.5	98.0		

Remarks

NATA

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Accreditation Number: 1986
Corporate Site Number: 14874

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Approved Signatory: Daniel Boyd
Form ID: W5ASRepSum Rev 4

Construction Sciences

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Laboratory: Melbourne Laboratory
Phone: 0393649301 Fax: 0393383255

Email: Melbourne@constructionsciences.net

LOT REPORT - WET DENSITY RATIO

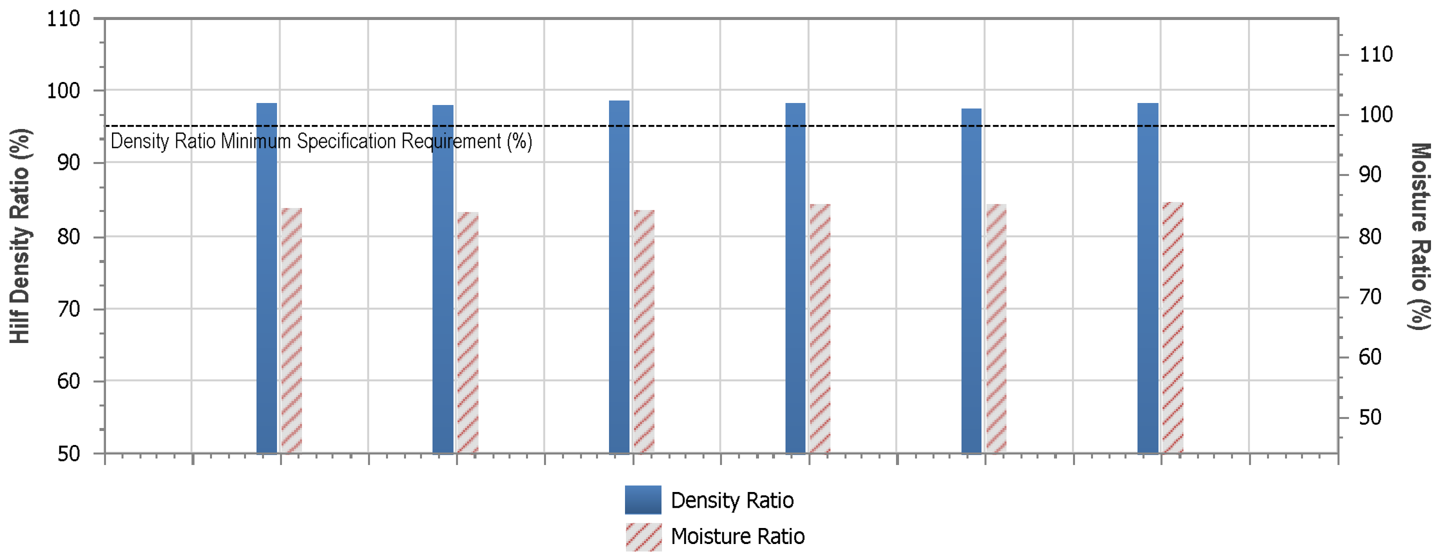
Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48804-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28433
Component:		Client Reference/s:	Level 1 19/10
Area Description:	STG 25	Report Date / Page:	25/10/2017 Page 3 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1
Statistical Analysis Test Method:	Lot Average (Lot average calculations are not covered by NATA endorsement)

Nuclear Gauge Calibration Details

Calibration Number	-	Material Source	-
Calibration Last Updated	-	Material Type	-
Nominated Calibration Layer Depth (mm)	-	-	

LOT TEST RESULT SUMMARY



Tests in Lot = 6	Lot Minimum	Lot Maximum	Lot Mean	Standard Deviation
Moisture Ratio (%)	83.9	85.6	84.7	0.645
Hilf Density Ratio (%)	97.3	98.4	97.9	0.390

Lot Number: -
Mean Density Ratio (%): 97.9
Mean Moisture Ratio (%): 84.7

Remarks

Approved Signatory: Daniel Boyd
Form ID: W5ASRepSum Rev 4

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MELBOURNE

Not to Scale
Dimensions in Approx. Metres

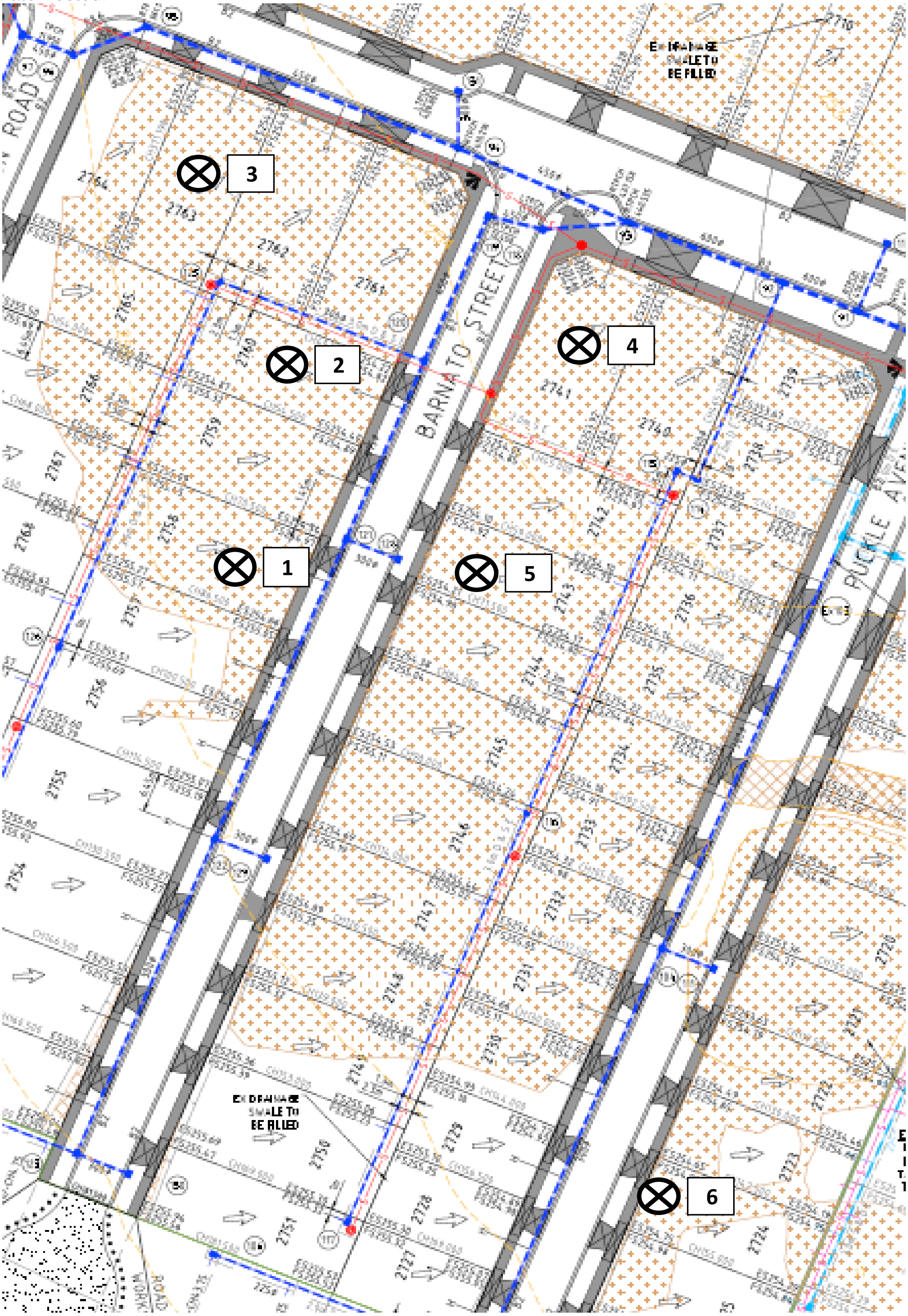
Site Location Sketch

Test site locations only

NOT TO SCALE

North

Client:	BMD Urban Pty Ltd
Job No.	14874/P/621
Test Request No.	T-28438
Date Tested:	19/10/2017



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LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48807-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28438
Component:		Client Reference/s:	Level 1 19/10
Area Description:	STG 25	Report Date / Page:	25/10/2017 Page 1 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115859	14874/S/115860	14874/S/115861	14874/S/115862
ID / Client ID	Refer to Map	Refer to Map	Refer to Map	Refer to Map
Lot Number	-	-	-	-
Date / Time Tested	19/10/2017	19/10/2017	19/10/2017	19/10/2017
Material Source	Onsite	Onsite	Onsite	Onsite
Material Type	Clay	Clay	Clay	Clay
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b
Depths: Test / Nom / Actual (mm)	175 / 200 / 200	175 / 200 / 200	175 / 200 / 200	175 / 200 / 200
Standard or Modified	Standard	Standard	Standard	Standard
Layer Number	3	2	2	3
Location Number	1	2	3	4
Test Fraction (mm)	< 19.0 mm	< 19.0 mm	< 19.0 mm	< 19.0 mm
Sample Oversize (%)	0	0	0	0
Density of Oversize (t/m³)	-	-	-	-
Compaction Sample Number	14874/S/115859	14874/S/115860	14874/S/115861	14874/S/115862
Sample Description	Clay	Clay	Clay	Clay
Moisture Test Results:				
Field Moisture Content (%)	12.6	13.0	12.6	13.6
Adjusted / Moisture Variation (%)	2.5	2.5	2.5	2.5
Optimum Moisture Content (%)	15.0	15.5	15.0	16.0
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)
Moisture Ratio (%)	83.5	84.5	83.5	85.0
Density Test Results:				
Field Wet Density (t/m³)	2.04	2.03	2.03	2.04
Adj/Peak Conv Wet Density (t/m³)	2.07	2.08	2.07	2.08
Density Ratio Required (%)	95	95	95	95
Hilf Density Ratio (%)	98.5	97.5	98.0	98.0

Remarks

NATA

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Corporate Site Number: 14874

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LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48807-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28438
Component:		Client Reference/s:	Level 1 19/10
Area Description:	STG 25	Report Date / Page:	25/10/2017 Page 2 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115863	14874/S/115864		
ID / Client ID	Refer to Map	Refer to Map		
Lot Number	-	-		
Date / Time Tested	19/10/2017	19/10/2017		
Material Source	Onsite	Onsite		
Material Type	Clay	Clay		
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b		
Depths: Test / Nom / Actual (mm)	175 / 200 / 200	175 / 200 / 200		
Standard or Modified	Standard	Standard		
Layer Number	1	1		
Location Number	5	6		
Test Fraction (mm)	< 19.0 mm	< 19.0 mm		
Sample Oversize (%)	0	0		
Density of Oversize (t/m³)	-	-		
Compaction Sample Number	14874/S/115863	14874/S/115864		
Sample Description	Clay	Clay		
Moisture Test Results:				
Field Moisture Content (%)	14.1	14.9		
Adjusted / Moisture Variation (%)	2.5	2.5		
Optimum Moisture Content (%)	16.5	17.5		
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)		
Moisture Ratio (%)	85.5	85.5		
Density Test Results:				
Field Wet Density (t/m³)	2.03	2.04		
Adj/Peak Conv Wet Density (t/m³)	2.08	2.08		
Density Ratio Required (%)	95	95		
Hilf Density Ratio (%)	97.5	98.0		

Remarks

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LOT REPORT - WET DENSITY RATIO

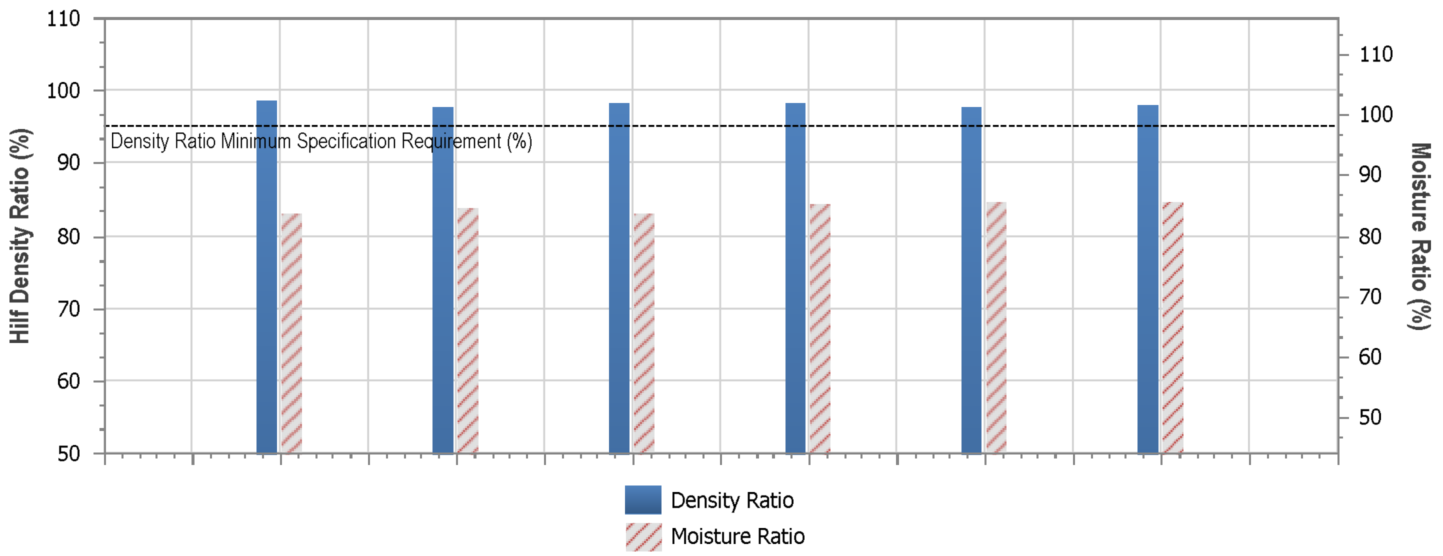
Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48807-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28438
Component:		Client Reference/s:	Level 1 19/10
Area Description:	STG 25	Report Date / Page:	25/10/2017 Page 3 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1
Statistical Analysis Test Method:	Lot Average (Lot average calculations are not covered by NATA endorsement)

Nuclear Gauge Calibration Details

Calibration Number	-	Material Source	-
Calibration Last Updated	-	Material Type	-
Nominated Calibration Layer Depth (mm)	-	-	

LOT TEST RESULT SUMMARY



Tests in Lot = 6	Lot Minimum	Lot Maximum	Lot Mean	Standard Deviation
Moisture Ratio (%)	83.4	85.6	84.6	0.989
Hilf Density Ratio (%)	97.5	98.4	97.9	0.332

Lot Number:	-
Mean Density Ratio (%):	97.9
Mean Moisture Ratio (%):	84.6

Remarks

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Form ID: W5ASRepSum Rev 4

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MELBOURNE

Not to Scale
Dimensions in Approx. Metres

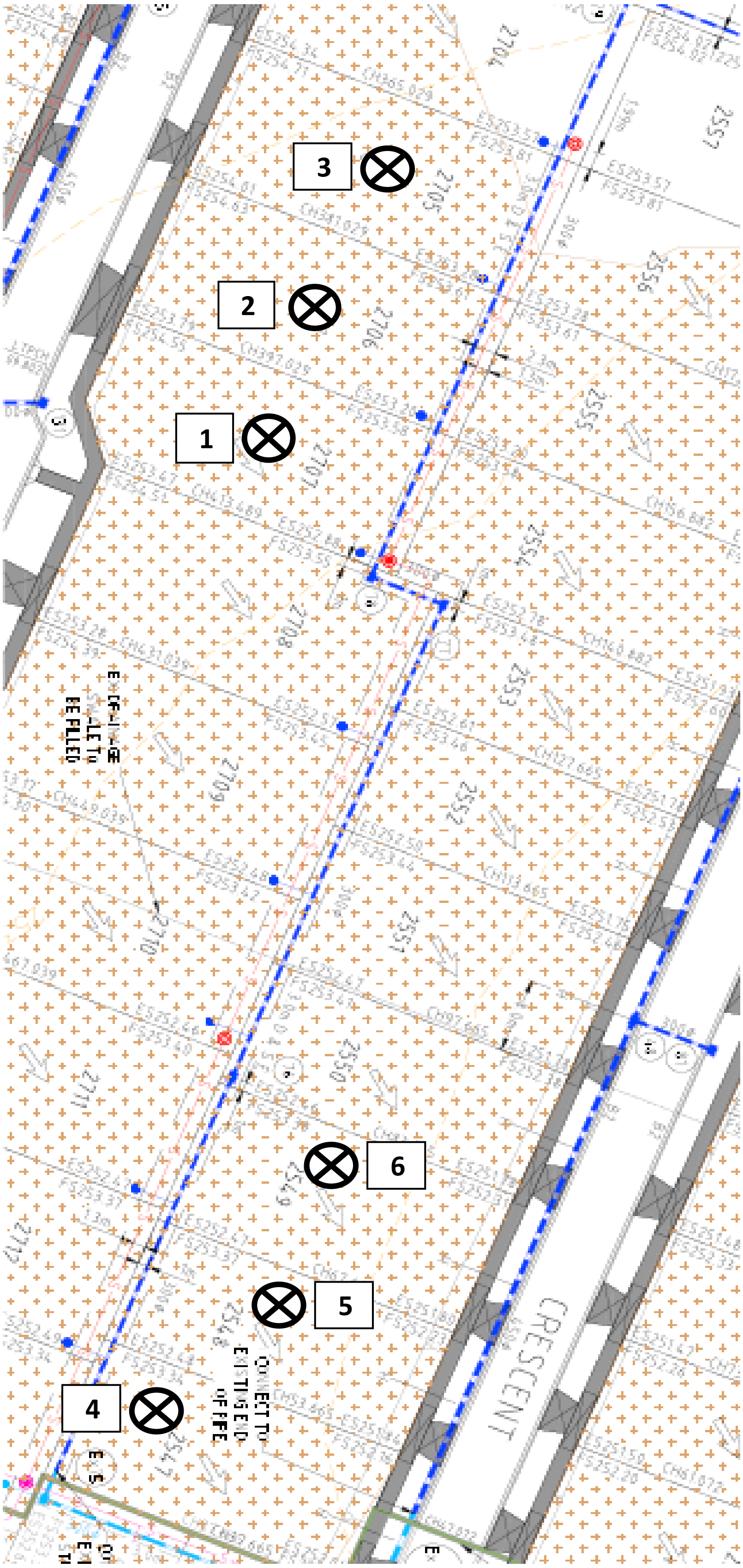
Site Location Sketch

Test site locations only

NOT TO SCALE

Client:	BMD Urban Pty Ltd
Job No.	14874/P/621
Test Request No.	T-28439
Date Tested:	19/10/2017

North



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LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48809-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28439
Component:		Client Reference/s:	Level 1 19/10
Area Description:	stg 25	Report Date / Page:	25/10/2017 Page 1 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115865	14874/S/115866	14874/S/115867	14874/S/115868
ID / Client ID	Refer to Map	Refer to Map	Refer to Map	Refer to Map
Lot Number	-	-	-	-
Date / Time Tested	19/10/2017	19/10/2017	19/10/2017	19/10/2017
Material Source	Onsite	Onsite	Onsite	Onsite
Material Type	Clay	Clay	Clay	Clay
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b
Depths: Test / Nom / Actual (mm)	175 / 200 / 200	175 / 200 / -	175 / 200 / -	175 / 200 / -
Standard or Modified	Standard	Standard	Standard	Standard
Layer Number	1	2	3	4
Location Number	1	2	3	4
Test Fraction (mm)	< 19.0 mm	< 19.0 mm	< 19.0 mm	< 19.0 mm
Sample Oversize (%)	0	0	0	0
Density of Oversize (t/m³)	-	-	-	-
Compaction Sample Number	14874/S/115865	14874/S/115866	14874/S/115867	14874/S/115868
Sample Description	Clay	Clay	Clay	Clay
Moisture Test Results:				
Field Moisture Content (%)	13.4	13.8	14.8	16.3
Adjusted / Moisture Variation (%)	2.5	2.5	2.5	2.5
Optimum Moisture Content (%)	16.0	16.0	17.5	18.5
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)
Moisture Ratio (%)	84.5	85.0	85.0	87.0
Density Test Results:				
Field Wet Density (t/m³)	2.04	2.03	2.04	2.03
Adj/Peak Conv Wet Density (t/m³)	2.07	2.07	2.09	2.07
Density Ratio Required (%)	95	95	95	95
Hilf Density Ratio (%)	98.5	98.0	97.5	98.0

Remarks

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LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48809-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28439
Component:		Client Reference/s:	Level 1 19/10
Area Description:	stg 25	Report Date / Page:	25/10/2017 Page 2 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115869	14874/S/115870		
ID / Client ID	Refer to Map	Refer to Map		
Lot Number	-	-		
Date / Time Tested	19/10/2017	19/10/2017		
Material Source	Onsite	Onsite		
Material Type	Clay	Clay		
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b		
Depths: Test / Nom / Actual (mm)	175 / 200 / -	175 / 200 / -		
Standard or Modified	Standard	Standard		
Layer Number	4	2		
Location Number	5	6		
Test Fraction (mm)	< 19.0 mm	< 19.0 mm		
Sample Oversize (%)	0	0		
Density of Oversize (t/m³)	-	-		
Compaction Sample Number	14874/S/115869	14874/S/115870		
Sample Description	Clay	Clay		
Moisture Test Results:				
Field Moisture Content (%)	14.5	14.7		
Adjusted / Moisture Variation (%)	2.5	2.5		
Optimum Moisture Content (%)	17.0	17.0		
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)		
Moisture Ratio (%)	85.5	86.0		
Density Test Results:				
Field Wet Density (t/m³)	2.04	2.03		
Adj/Peak Conv Wet Density (t/m³)	2.07	2.09		
Density Ratio Required (%)	95	95		
Hilf Density Ratio (%)	98.5	97.0		

Remarks

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LOT REPORT - WET DENSITY RATIO

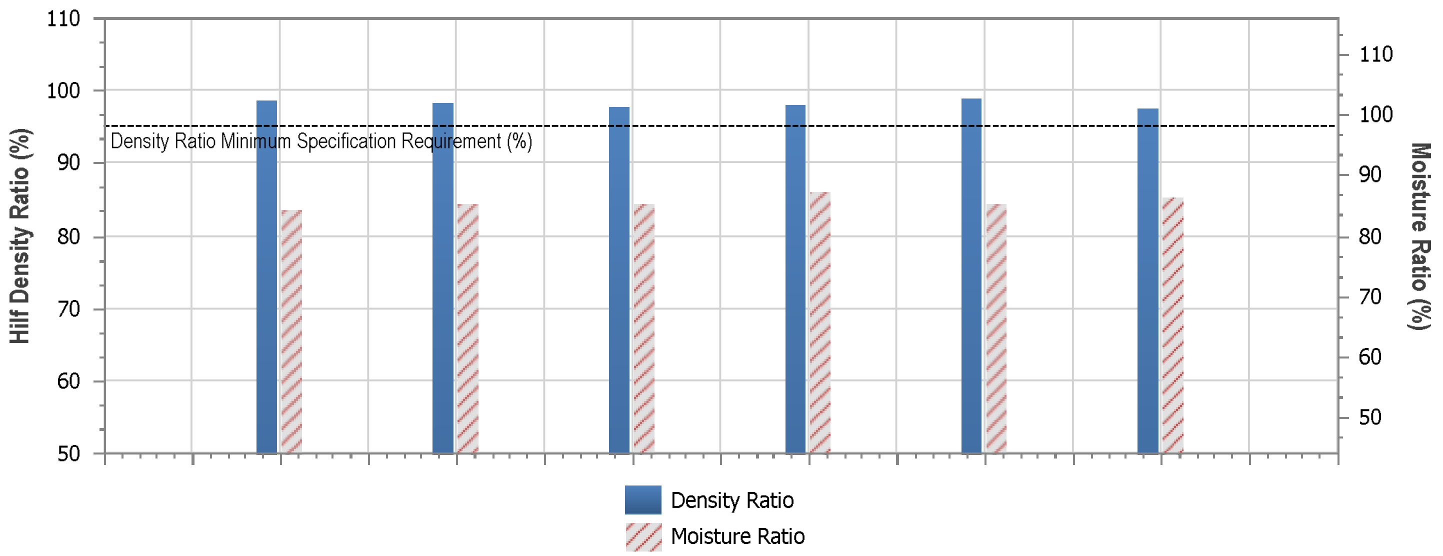
Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48809-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28439
Component:		Client Reference/s:	Level 1 19/10
Area Description:	stg 25	Report Date / Page:	25/10/2017 Page 3 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1
Statistical Analysis Test Method:	Lot Average (Lot average calculations are not covered by NATA endorsement)

Nuclear Gauge Calibration Details

Calibration Number	-	Material Source	-
Calibration Last Updated	-	Material Type	-
Nominated Calibration Layer Depth (mm)	-	-	

LOT TEST RESULT SUMMARY



Tests in Lot = 6	Lot Minimum	Lot Maximum	Lot Mean	Standard Deviation
Moisture Ratio (%)	84.3	87.2	85.5	0.987
Hilf Density Ratio (%)	97.2	98.7	98.0	0.542

Lot Number:	-
Mean Density Ratio (%):	98.0
Mean Moisture Ratio (%):	85.5

Remarks

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Form ID: W5ASRepSum Rev 4

Construction Sciences

MELBOURNE

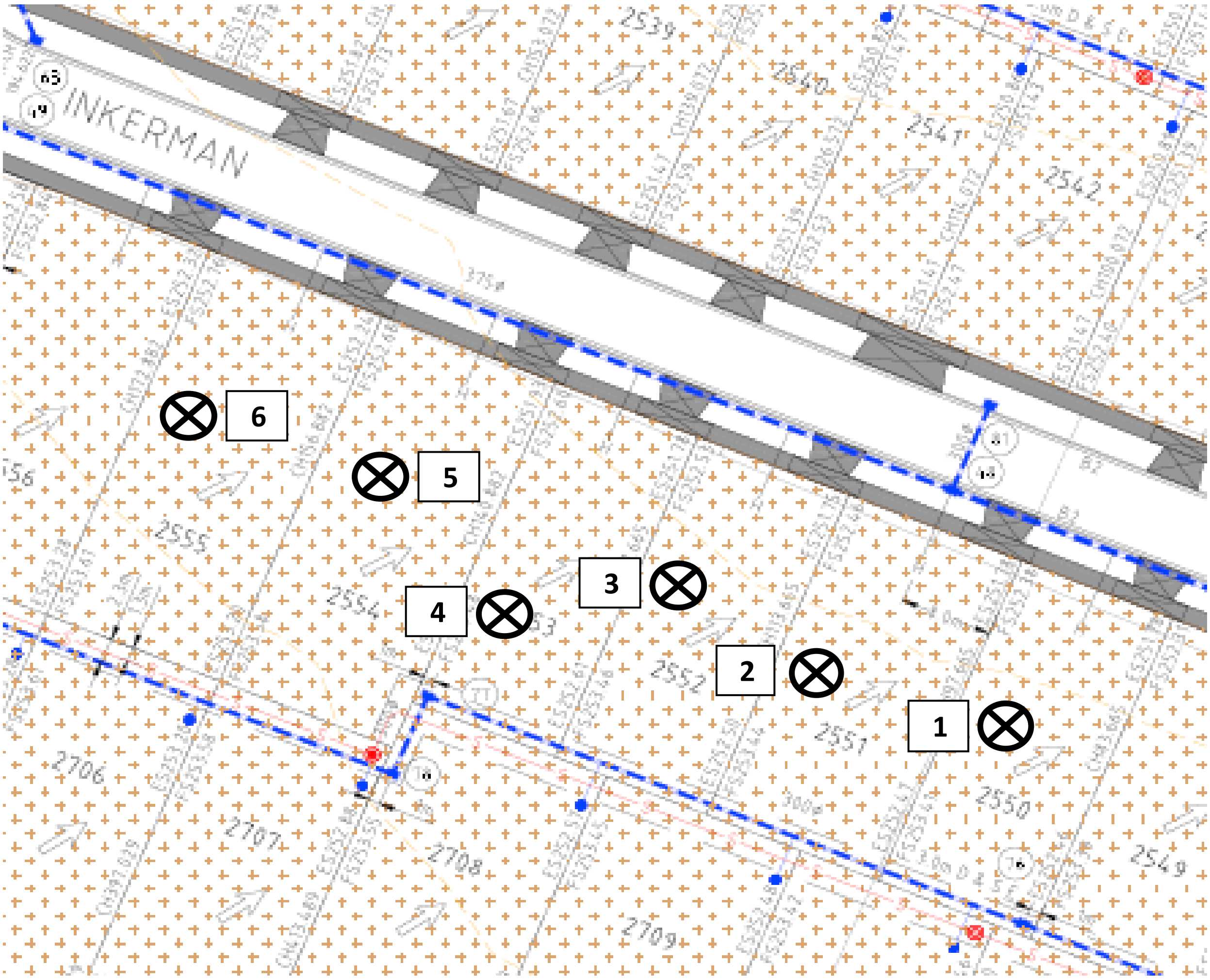
Not to Scale
Dimensions in Approx. Metres

Site Location Sketch

Test site locations only
NOT TO SCALE

North

Client:	BMD Urban Pty Ltd
Job No.	14874/P/621
Test Request No.	T-28443
Date Tested:	19/10/2017



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Email: Melbourne@constructionsciences.net

LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48815-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28443
Component:		Client Reference/s:	Level 1 19/10
Area Description:	STG 25	Report Date / Page:	25/10/2017 Page 1 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115871	14874/S/115872	14874/S/115873	14874/S/115874
ID / Client ID	Refer to Map	Refer to Map	Refer to Map	Refer to Map
Lot Number	-	-	-	-
Date / Time Tested	19/10/2017	19/10/2017	19/10/2017	19/10/2017
Material Source	Onsite	Onsite	Onsite	Onsite
Material Type	Clay	Clay	Clay	Clay
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b
Depths: Test / Nom / Actual (mm)	175 / 200 / 200	175 / 200 / -	175 / 200 / -	175 / 200 / -
Standard or Modified	Standard	Standard	Standard	Standard
Layer Number	1	1	2	3
Location Number	1	2	3	4
Test Fraction (mm)	< 19.0 mm	< 19.0 mm	< 19.0 mm	< 19.0 mm
Sample Oversize (%)	0	0	0	0
Density of Oversize (t/m³)	-	-	-	-
Compaction Sample Number	14874/S/115871	14874/S/115872	14874/S/115873	14874/S/115874
Sample Description	Clay	Clay	Clay	Clay
Moisture Test Results:				
Field Moisture Content (%)	14.6	13.5	13.8	14.5
Adjusted / Moisture Variation (%)	2.5	2.5	2.5	2.5
Optimum Moisture Content (%)	17.0	16.0	16.0	17.0
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)
Moisture Ratio (%)	86.0	84.5	85.0	86.0
Density Test Results:				
Field Wet Density (t/m³)	2.02	2.04	2.02	2.03
Adj/Peak Conv Wet Density (t/m³)	2.08	2.08	2.07	2.07
Density Ratio Required (%)	95	95	95	95
Hilf Density Ratio (%)	97.5	97.5	97.5	98.5

Remarks

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LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48815-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28443
Component:		Client Reference/s:	Level 1 19/10
Area Description:	STG 25	Report Date / Page:	25/10/2017 Page 2 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115875	14874/S/115876		
ID / Client ID	Refer to Map	Refer to Map		
Lot Number	-	-		
Date / Time Tested	19/10/2017	19/10/2017		
Material Source	Onsite	Onsite		
Material Type	Clay	Clay		
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b		
Depths: Test / Nom / Actual (mm)	175 / 200 / -	175 / 200 / -		
Standard or Modified	Standard	Standard		
Layer Number	4	2		
Location Number	5	6		
Test Fraction (mm)	< 19.0 mm	< 19.0 mm		
Sample Oversize (%)	0	0		
Density of Oversize (t/m³)	-	-		
Compaction Sample Number	14874/S/115875	14874/S/115876		
Sample Description	Clay	Clay		
Moisture Test Results:				
Field Moisture Content (%)	14.1	14.8		
Adjusted / Moisture Variation (%)	2.5	2.5		
Optimum Moisture Content (%)	16.5	17.0		
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)		
Moisture Ratio (%)	85.5	86.0		
Density Test Results:				
Field Wet Density (t/m³)	2.03	2.03		
Adj/Peak Conv Wet Density (t/m³)	2.08	2.06		
Density Ratio Required (%)	95	95		
Hilf Density Ratio (%)	97.5	98.5		

Remarks

NATA

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Accredited for compliance with ISO/IEC 17025 - Testing

Accreditation Number: 1986
Corporate Site Number: 14874

Daniel Boyd

Approved Signatory: Daniel Boyd
Form ID: W5ASRepSum Rev 4

Construction Sciences

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Laboratory: Melbourne Laboratory
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LOT REPORT - WET DENSITY RATIO

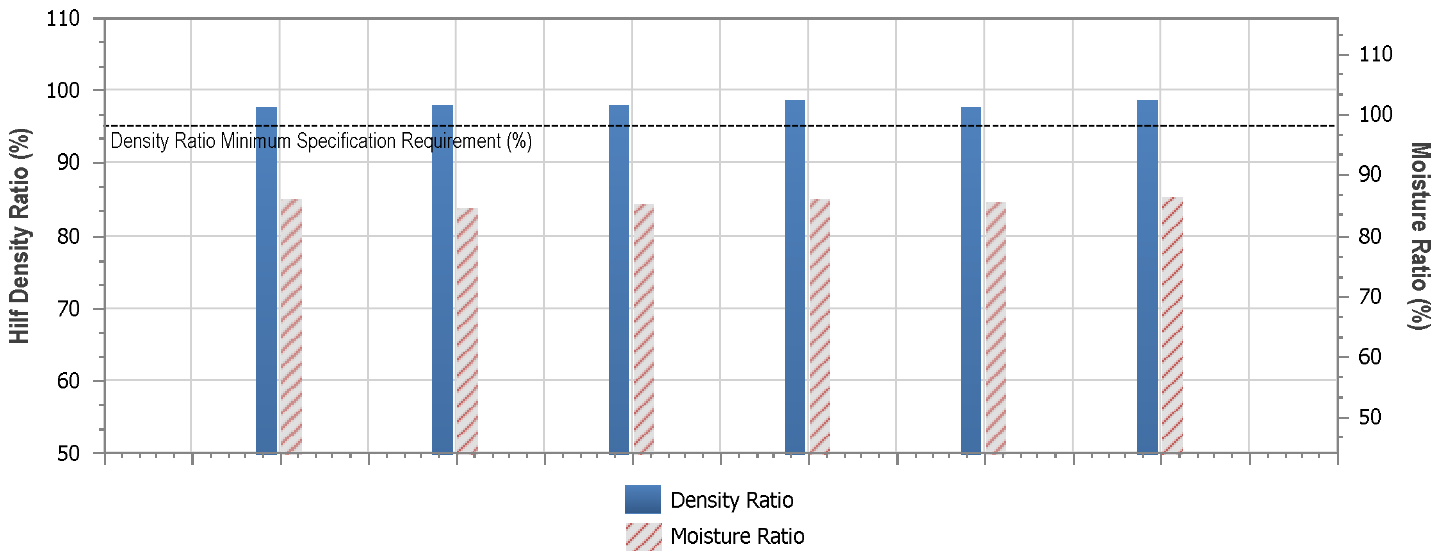
Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48815-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28443
Component:		Client Reference/s:	Level 1 19/10
Area Description:	STG 25	Report Date / Page:	25/10/2017 Page 3 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1
Statistical Analysis Test Method:	Lot Average (Lot average calculations are not covered by NATA endorsement)

Nuclear Gauge Calibration Details

Calibration Number	-	Material Source	-
Calibration Last Updated	-	Material Type	-
Nominated Calibration Layer Depth (mm)	-	-	

LOT TEST RESULT SUMMARY



Tests in Lot = 6	Lot Minimum	Lot Maximum	Lot Mean	Standard Deviation
Moisture Ratio (%)	84.4	86.0	85.5	0.600
Hilf Density Ratio (%)	97.5	98.4	97.9	0.424

Lot Number:	-
Mean Density Ratio (%):	97.9
Mean Moisture Ratio (%):	85.5

Remarks

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Construction Sciences

MELBOURNE

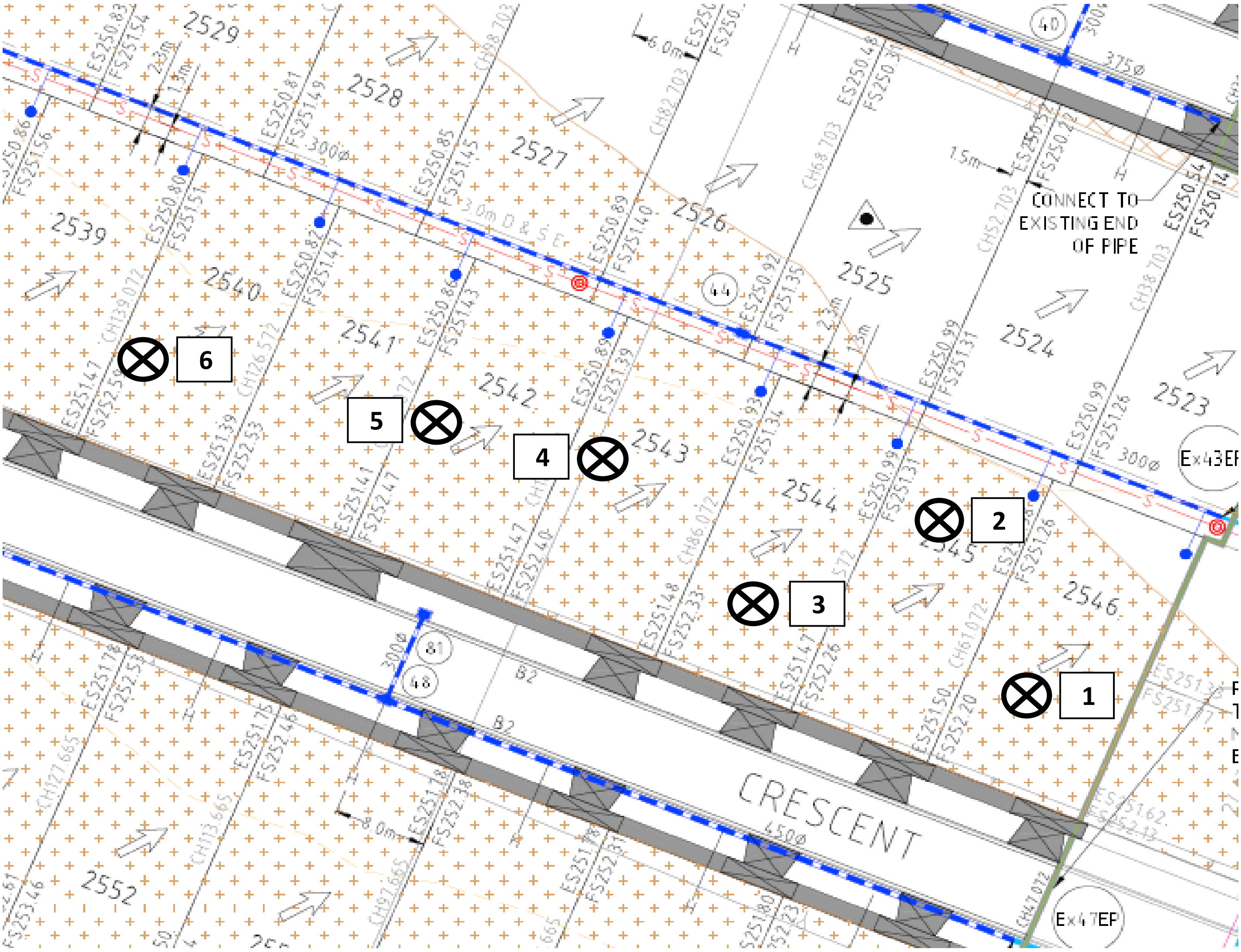
Not to Scale
Dimensions in Approx. Metres

Site Location Sketch

Client:	BMD Urban Pty Ltd
Job No.	14874/P/621
Test Request No.	T-28450
Date Tested:	19/10/2017

Test site locations only
NOT TO SCALE

North



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LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48821-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28450
Component:		Client Reference/s:	Level 1 19/10
Area Description:	STG 25	Report Date / Page:	25/10/2017 Page 1 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115897	14874/S/115898	14874/S/115899	14874/S/115900
ID / Client ID	Refer to Map	Refer to Map	Refer to Map	Refer to Map
Lot Number	-	-	-	-
Date / Time Tested	19/10/2017	19/10/2017	19/10/2017	19/10/2017
Material Source	Onsite	Onsite	Onsite	Onsite
Material Type	Clay	Clay	Clay	Clay
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b
Depths: Test / Nom / Actual (mm)	175 / 200 / 200	175 / 200 / -	175 / 200 / -	175 / 200 / -
Standard or Modified	Standard	Standard	Standard	Standard
Layer Number	1	1	2	2
Location Number	1	2	3	4
Test Fraction (mm)	< 19.0 mm	< 19.0 mm	< 19.0 mm	< 19.0 mm
Sample Oversize (%)	0	0	0	0
Density of Oversize (t/m³)	-	-	-	-
Compaction Sample Number	14874/S/115897	14874/S/115898	14874/S/115899	14874/S/115900
Sample Description	Clay	Clay	Clay	Clay
Moisture Test Results:				
Field Moisture Content (%)	13.6	14.4	16.3	13.4
Adjusted / Moisture Variation (%)	2.5	2.5	2.5	2.5
Optimum Moisture Content (%)	16.0	17.0	18.5	16.0
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)
Moisture Ratio (%)	84.5	85.5	87.0	85.0
Density Test Results:				
Field Wet Density (t/m³)	2.05	2.04	2.04	2.04
Adj/Peak Conv Wet Density (t/m³)	2.07	2.07	2.08	2.08
Density Ratio Required (%)	95	95	95	95
Hilf Density Ratio (%)	99.0	98.5	97.5	98.0

Remarks

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LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48821-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28450
Component:		Client Reference/s:	Level 1 19/10
Area Description:	STG 25	Report Date / Page:	25/10/2017 Page 2 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115901	14874/S/115902		
ID / Client ID	Refer to Map	Refer to Map		
Lot Number	-	-		
Date / Time Tested	19/10/2017	19/10/2017		
Material Source	Onsite	Onsite		
Material Type	Clay	Clay		
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b		
Depths: Test / Nom / Actual (mm)	175 / 200 / -	175 / 200 / -		
Standard or Modified	Standard	Standard		
Layer Number	3	4		
Location Number	5	6		
Test Fraction (mm)	< 19.0 mm	< 19.0 mm		
Sample Oversize (%)	0	0		
Density of Oversize (t/m³)	-	-		
Compaction Sample Number	14874/S/115901	14874/S/115902		
Sample Description	Clay	Clay		
Moisture Test Results:				
Field Moisture Content (%)	12.9	13.6		
Adjusted / Moisture Variation (%)	2.5	2.5		
Optimum Moisture Content (%)	15.5	16.0		
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)		
Moisture Ratio (%)	84.0	84.5		
Density Test Results:				
Field Wet Density (t/m³)	2.04	2.04		
Adj/Peak Conv Wet Density (t/m³)	2.08	2.07		
Density Ratio Required (%)	95	95		
Hilf Density Ratio (%)	98.0	98.5		

Remarks

NATA

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LOT REPORT - WET DENSITY RATIO

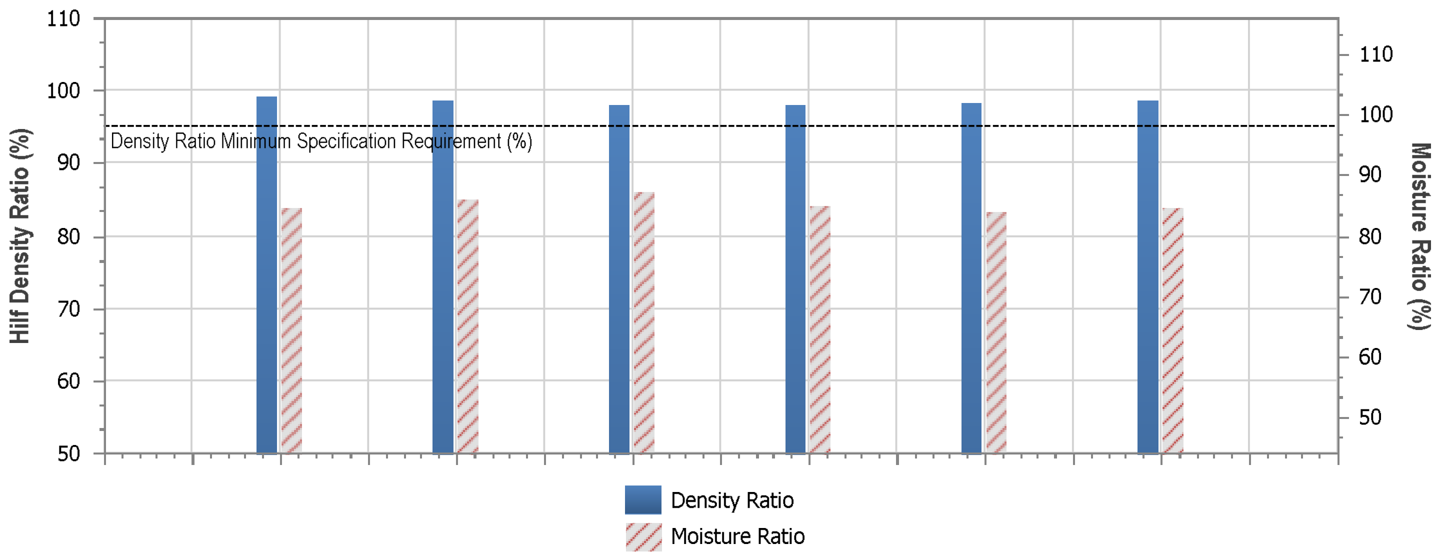
Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48821-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28450
Component:		Client Reference/s:	Level 1 19/10
Area Description:	STG 25	Report Date / Page:	25/10/2017 Page 3 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1
Statistical Analysis Test Method:	Lot Average (Lot average calculations are not covered by NATA endorsement)

Nuclear Gauge Calibration Details

Calibration Number	-	Material Source	-
Calibration Last Updated	-	Material Type	-
Nominated Calibration Layer Depth (mm)	-	-	

LOT TEST RESULT SUMMARY



Tests in Lot = 6	Lot Minimum	Lot Maximum	Lot Mean	Standard Deviation
Moisture Ratio (%)	83.8	87.2	85.1	1.206
Hilf Density Ratio (%)	97.7	98.9	98.2	0.463

Lot Number:	-
Mean Density Ratio (%):	98.2
Mean Moisture Ratio (%):	85.1

Remarks

NATA

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Corporate Site Number: 14874

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Form ID: W5ASRepSum Rev 4

Construction Sciences

MELBOURNE

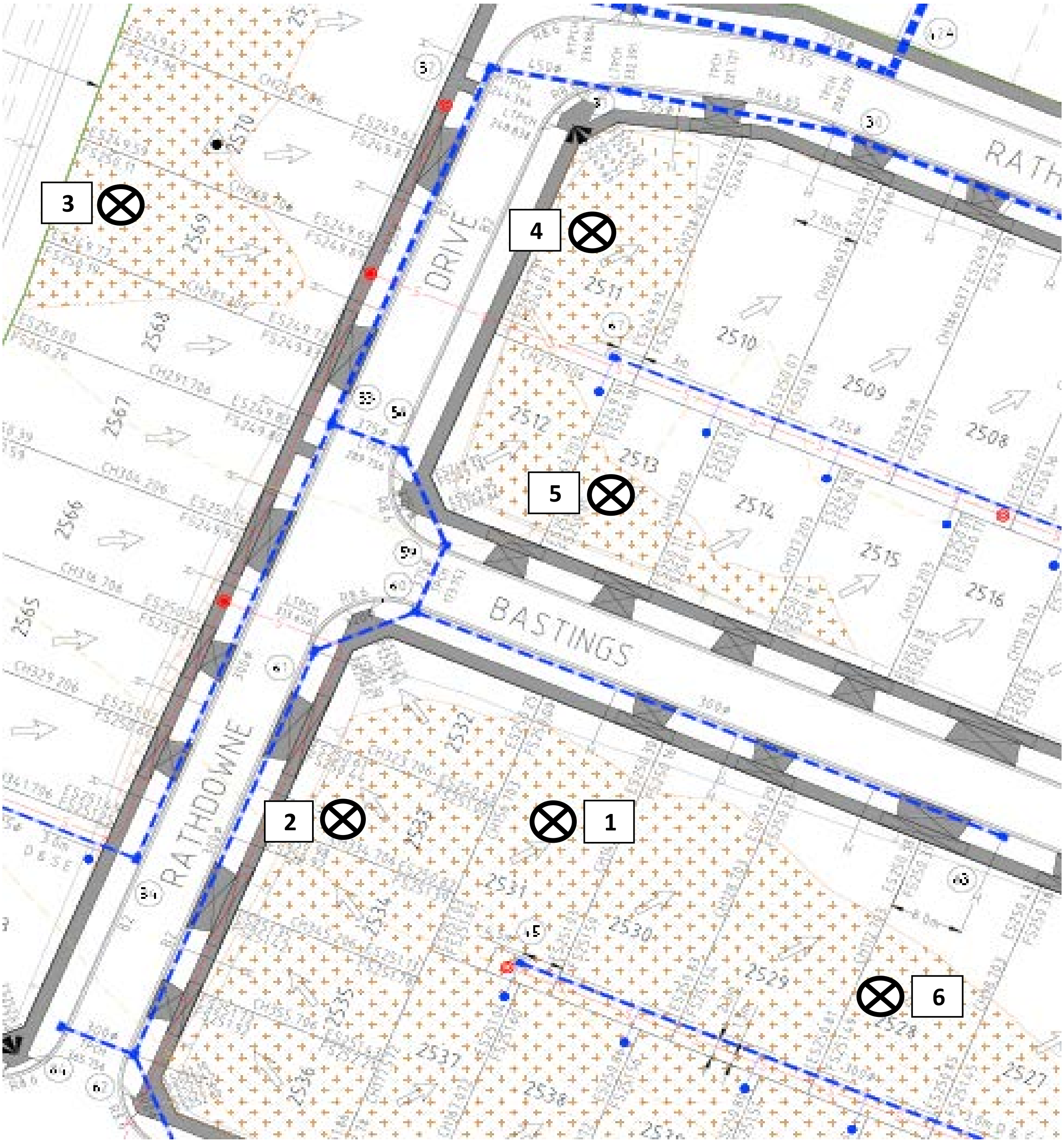
Not to Scale
Dimensions in Approx. Metres

Site Location Sketch

Test site locations only
NOT TO SCALE

North

Client:	BMD Urban Pty Ltd
Job No.	14874/P/621
Test Request No.	T-28453
Date Tested:	19/10/2017



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LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48818-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28453
Component:		Client Reference/s:	Level 1 19/10
Area Description:	STG 25	Report Date / Page:	25/10/2017 Page 1 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115904	14874/S/115905	14874/S/115906	14874/S/115907
ID / Client ID	Refer to Map	Refer to Map	Refer to Map	Refer to Map
Lot Number	-	-	-	-
Date / Time Tested	19/10/2017	19/10/2017	19/10/2017	19/10/2017
Material Source	Onsite	Onsite	Onsite	Onsite
Material Type	Clay	Clay	Clay	Clay
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b
Depths: Test / Nom / Actual (mm)	175 / 200 / 200	175 / 200 / -	175 / 200 / -	175 / 200 / -
Standard or Modified	Standard	Standard	Standard	Standard
Layer Number	1	4	2	1
Location Number	1	2	3	4
Test Fraction (mm)	< 19.0 mm	< 19.0 mm	< 19.0 mm	< 19.0 mm
Sample Oversize (%)	0	0	0	0
Density of Oversize (t/m³)	-	-	-	-
Compaction Sample Number	14874/S/115904	14874/S/115905	14874/S/115906	14874/S/115907
Sample Description	Clay	Clay	Clay	Clay
Moisture Test Results:				
Field Moisture Content (%)	12.5	13.9	14.2	13.5
Adjusted / Moisture Variation (%)	2.5	2.5	2.5	2.5
Optimum Moisture Content (%)	15.0	16.5	16.5	16.0
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)
Moisture Ratio (%)	84.0	85.0	85.0	84.5
Density Test Results:				
Field Wet Density (t/m³)	2.04	2.04	2.03	2.03
Adj/Peak Conv Wet Density (t/m³)	2.08	2.08	2.07	2.07
Density Ratio Required (%)	95	95	95	95
Hilf Density Ratio (%)	98.0	98.0	98.5	97.5

Remarks

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LOT REPORT - WET DENSITY RATIO

Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48818-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28453
Component:		Client Reference/s:	Level 1 19/10
Area Description:	STG 25	Report Date / Page:	25/10/2017 Page 2 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1

Sample Number	14874/S/115908	14874/S/115909		
ID / Client ID	Refer to Map	Refer to Map		
Lot Number	-	-		
Date / Time Tested	19/10/2017	19/10/2017		
Material Source	Onsite	Onsite		
Material Type	Clay	Clay		
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b		
Depths: Test / Nom / Actual (mm)	175 / 200 / -	175 / 200 / -		
Standard or Modified	Standard	Standard		
Layer Number	2	1		
Location Number	5	6		
Test Fraction (mm)	< 19.0 mm	< 19.0 mm		
Sample Oversize (%)	0	0		
Density of Oversize (t/m³)	-	-		
Compaction Sample Number	14874/S/115908	14874/S/115909		
Sample Description	Clay	Clay		
Moisture Test Results:				
Field Moisture Content (%)	14.9	15.0		
Adjusted / Moisture Variation (%)	2.5	2.5		
Optimum Moisture Content (%)	17.5	17.5		
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)		
Moisture Ratio (%)	85.5	85.0		
Density Test Results:				
Field Wet Density (t/m³)	2.03	2.04		
Adj/Peak Conv Wet Density (t/m³)	2.08	2.09		
Density Ratio Required (%)	95	95		
Hilf Density Ratio (%)	97.5	97.5		

Remarks

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LOT REPORT - WET DENSITY RATIO

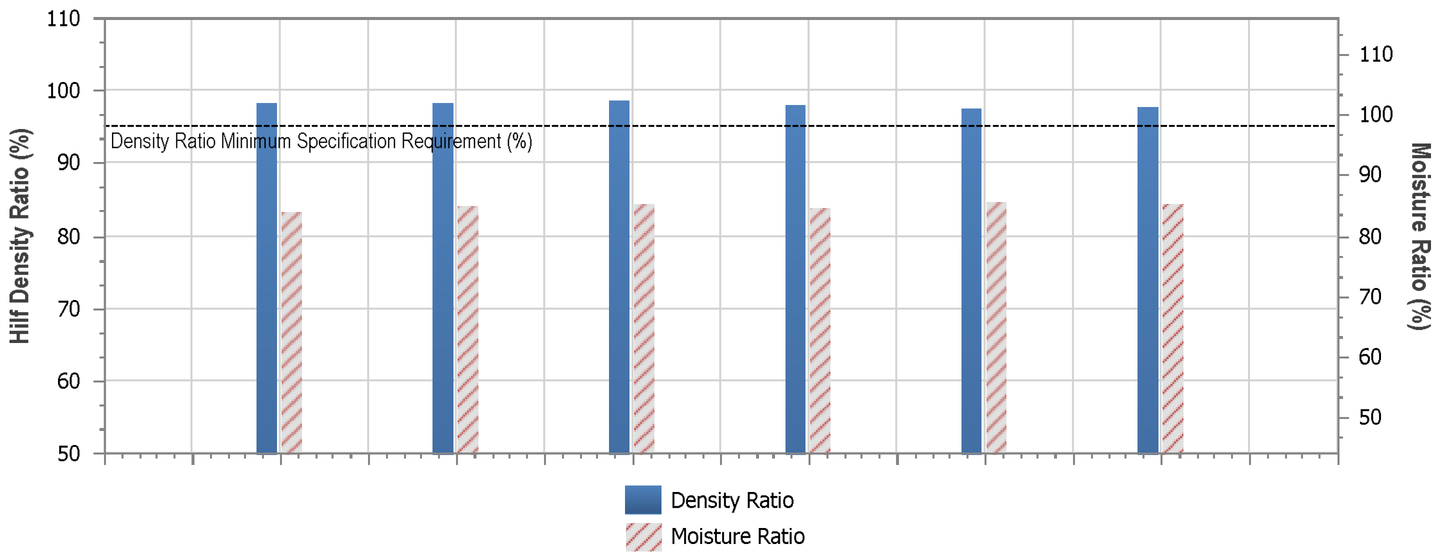
Client:	BMD Urban Pty Ltd	Report Number:	14874/R/48818-1
Client Address:	PO BOX 1128, CAMBERWELL	Project Number:	14874/P/621
Project:	Merrifield Estate - Stage 25	Lot Number:	
Location:	Merrifield	Internal Test Request:	14874/T/28453
Component:		Client Reference/s:	Level 1 19/10
Area Description:	STG 25	Report Date / Page:	25/10/2017 Page 3 of 3

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1
Statistical Analysis Test Method:	Lot Average (Lot average calculations are not covered by NATA endorsement)

Nuclear Gauge Calibration Details

Calibration Number	-	Material Source	-
Calibration Last Updated	-	Material Type	-
Nominated Calibration Layer Depth (mm)	-	-	

LOT TEST RESULT SUMMARY



Tests in Lot = 6	Lot Minimum	Lot Maximum	Lot Mean	Standard Deviation
Moisture Ratio (%)	83.9	85.6	84.8	0.602
Hilf Density Ratio (%)	97.4	98.5	97.9	0.390

Lot Number:	-
Mean Density Ratio (%):	97.9
Mean Moisture Ratio (%):	84.8

Remarks

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