



CIVIL GEOTECHNICAL SERVICES
ABN 26 474 013 724
PO Box 678 Croydon Vic 3136
Telephone: 9723 0744 Facsimile: 9723 0799

4th September 2024

Our Reference: 24200:NB1989

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
EYNESBURY – STAGE 15A (EYNESBURY)

Please find attached our Report No's 24200/R001 to 24200/R007 which relate to the field density testing that was conducted within the filled allotments at the above subdivision. The level 1 inspections and associated field density testing commenced in April 2024 and was completed in July 2024.

The inspections and testing of the earthworks was undertaken in general accordance with the Level 1 requirements of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments.

The site inspection and testing was performed by experienced geotechnicians from this office. Any areas that were deemed unsatisfactory were reworked and retested under their supervision. The testing was performed to the relevant Australian Standards and the accompanying test reports carry NATA endorsement. The attached compaction results, which were located randomly throughout the fill profile, are considered to be representative of the bulk fill materials that were placed across the reported allotments by Winslow Constructors during the aforementioned period. The approximate locations of the field density tests can be seen on the attached plan (Figure 1).

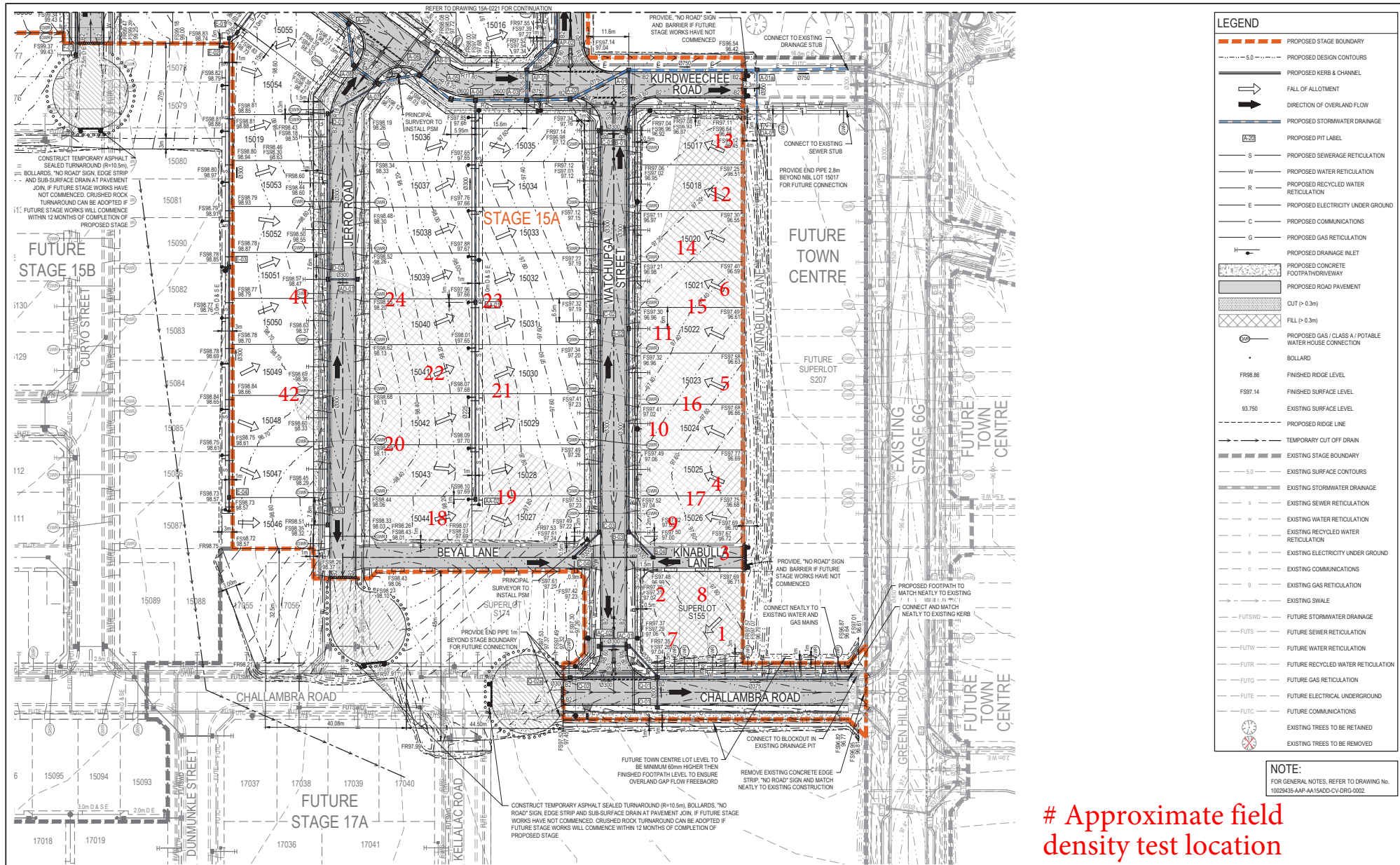
We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

Please contact the undersigned if you require any additional information.

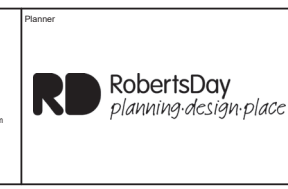
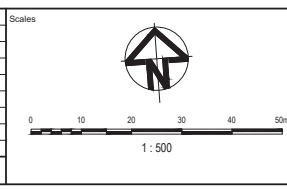
Civil Geotechnical Services

Nick Brock

FIGURE 1 (1 of 2)



Issue	Description	DR	CH	VE	Date
A	ISSUED FOR CONSTRUCTION	RC	JR	AD	06.03.24
05	UPDATES AS PER COUNCIL COMMENTS	CM	JR	SE	11.09.23
04	UPDATES AS PER COUNCIL COMMENTS	CM	JR	SE	21.08.23
03	UPDATES PER DESIGN COORDINATION	CM	JR	SE	27.06.23
02	UPDATES TO LANEWAYS AND STORMWATER	CV	JR	SE	24.02.23
01	ISSUED FOR INFORMATION	WB	JR	SE	30.11.22



Status	FOR CONSTRUCTION
Original Issue Signatures	© Copyright reserved
Drawn	W.BUMAGAT
Designed	K.REGLOS
Project Manager	A.DERANI
Verified	J.ROCK
Original Size	A1
Height	AHD
Datum	
Grid	MGA

Project	EYNESBURY TOWNSHIP STAGE 15A CITY OF MELTON
Title	ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 1

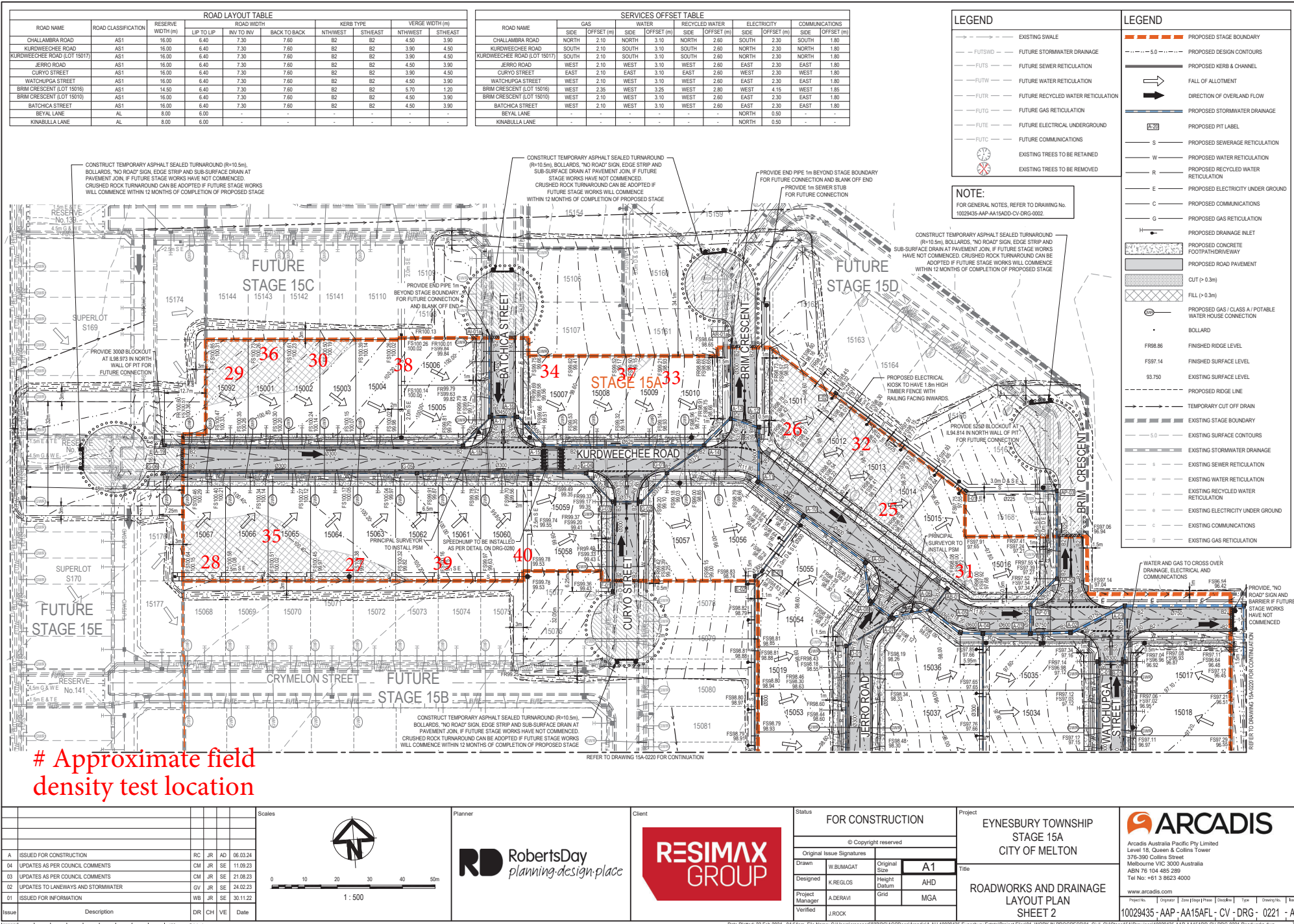
ARCADIS

Arcadis Australia Pacific Pty Limited
Level 18, Queen & Collins Tower
375-380 Collins Street
Melbourne VIC 3000 Australia
ABN 76 104 485 289
Tel No: +61 3 8623 4000
www.arcadis.com

Project No. | Designer | Drawing No. | Date | Type | Drawing No. | Scale

10029435-AAP-AA15AFL-CV-DRG-0220-A

FIGURE 1 (2 of 2)



Approximate field density test location

REFER TO DRAWING 15A-0220 FOR CONTINUATION

Issue Log

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR CONSTRUCTION	RC	JR	AD	06/03/24
02	UPDATES AS PER COUNCIL COMMENTS	CM	JR	SE	11/09/23
03	UPDATES AS PER COUNCIL COMMENTS	CM	JR	SE	21/06/23
04	UPDATES TO LAINEWAYS AND STORMWATER	CV	JR	SE	24/02/23
05	ISSUED FOR INFORMATION	WB	JR	SE	30/11/22

Scale

0 10 20 30 40 50m

1 : 500

Planner

RD RobertsDay
planning-design-place

Client

RESIMAX GROUP

Status

FOR CONSTRUCTION

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Original Issue Signatures

Drawn: W.BUMAGAT Original Size: A1

Designed: K.REGLOS Height: AHD

Project Manager: A.DERANI Grid: MGA

Verified: J.ROOK

Project

EYNESBURY TOWNSHIP
STAGE 15A
CITY OF MELTON

Title

ROADWORKS AND DRAINAGE
LAYOUT PLAN
SHEET 2

ARCADIS

Arcadis Australia Pacific Pty Limited
Level 18, Queen & Collins Tower
375-380 Collins Street
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10029435 - AAP - AA15AFI - CV - DRG - 0221 - A



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 24200
Report No 24200/R001
Date Issued 01/05/24
Tested by BS
Date tested 12/04/24
Checked by JHF

Client WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)
Project EYNESBURY - STAGE 15A
Location EYNESBURY

Feature **EARTHWORKS** Layer thickness 200 mm Time: 12:11

Test procedure AS 1289.2.1.1 & 5.8.1

Test No	1	2	3	4	5	6
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth mm	175	175	175	175	175	175
Field wet density t/m ³	1.94	1.93	1.97	1.91	1.98	1.92
Field moisture content %	22.1	23.7	21.9	19.0	18.4	19.2

Test procedure AS 1289.5.7.1

Test No	1	2	3	4	5	6
Compactive effort	Standard					
Oversize rock retained on sieve mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material wet	0	0	0	0	0	0
Peak Converted Wet Density t/m ³	2.00	2.02	1.97	1.93	1.98	1.94
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	24.0	26.0	23.0	20.5	20.5	21.0

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	1.0% dry	1.5% dry	2.0% dry	2.0% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio (R_{HD})	%	97.5	95.5	100.0	99.0	100.5	99.0
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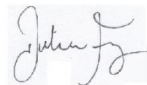
Material description

No 1 - 6 Clay Fill

AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909
Accredited for compliance with
ISO/IEC 17025 - Testing


Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 24200
Report No 24200/R002
Date Issued 22/05/24

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 15A	Date tested	15/04/24
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:22
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	7	8	9	10	11	12
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth mm	175	175	175	175	175	175
Field wet density t/m ³	1.91	1.85	1.85	1.92	1.98	1.92
Field moisture content %	19.5	18.8	18.9	19.2	21.6	23.5

Test procedure AS 1289.5.7.1

Test No	7	8	9	10	11	12
Compactive effort	Standard					
Oversize rock retained on sieve mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material wet	0	0	0	0	0	0
Peak Converted Wet Density t/m ³	1.96	1.87	1.88	1.95	2.02	1.94
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	21.5	21.0	21.0	21.5	23.5	26.0

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.5% dry	2.5% dry	1.5% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio (R_{HD})	%	97.5	98.5	98.5	98.0	98.0	99.0
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Material description

No 7 - 12 Clay Fill

AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909
Accredited for compliance with
ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 24200
Report No 24200/R003
Date Issued 01/05/24

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 15A	Date tested	17/04/24
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 14:44
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	13	14	15	16	17	18
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth mm	175	175	175	175	175	175
Field wet density t/m ³	2.07	2.04	2.05	1.83	1.85	1.90
Field moisture content %	27.4	28.2	25.4	27.2	26.5	27.2

Test procedure AS 1289.5.7.1

Test No	13	14	15	16	17	18
Compactive effort	Standard					
Oversize rock retained on sieve mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material wet	0	0	0	0	0	0
Peak Converted Wet Density t/m ³	2.07	2.05	2.05	1.85	1.88	1.94
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	29.5	31.0	28.0	27.5	28.5	30.0

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.0% dry	0.5% dry	2.0% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio (R_{HD})	%	100.0	99.5	99.5	98.5	98.5	98.0
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Material description

No 13 - 18 Clay Fill

AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909
Accredited for compliance with
ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 24200
Report No 24200/R004
Date Issued 01/05/24
Tested by BS
Date tested 22/04/24
Checked by JHF

Client WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)
Project EYNESBURY - STAGE 15A
Location EYNESBURY

Feature EARTHWORKS Layer thickness 200 mm Time: 13:29

Test procedure AS 1289.2.1.1 & 5.8.1

Test No	19	20	21	22	23	24
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth mm	175	175	175	175	175	175
Field wet density t/m ³	1.91	1.87	1.81	1.81	1.81	1.83
Field moisture content %	24.1	21.9	23.2	20.7	21.7	23.5

Test procedure AS 1289.5.7.1

Test No	19	20	21	22	23	24
Compactive effort	Standard					
Oversize rock retained on sieve mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material wet	0	0	0	0	0	0
Peak Converted Wet Density t/m ³	1.93	1.90	1.84	1.84	1.85	1.83
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	23.5	24.0	25.5	23.0	23.0	26.0

Moisture Variation From Optimum Moisture Content	0.5% wet	2.0% dry	2.5% dry	2.5% dry	1.5% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio (R_{HD})	%	99.0	98.5	98.5	98.5	98.0	100.0
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Material description

No 19 - 24 Clay Fill

AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909
Accredited for compliance with
ISO/IEC 17025 - Testing

Justin Fry

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 24200
Report No 24200/R005
Date Issued 14/05/24

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 15A	Date tested	30/04/24
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:27
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	25	26	27	28	29	30
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth mm	175	175	175	175	175	175
Field wet density t/m ³	1.90	1.90	1.94	1.89	1.87	1.89
Field moisture content %	25.3	20.4	24.4	27.3	27.0	26.6

Test procedure AS 1289.5.7.1

Test No	25	26	27	28	29	30
Compactive effort	Standard					
Oversize rock retained on sieve mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material wet	0	0	0	0	0	0
Peak Converted Wet Density t/m ³	1.91	1.92	1.97	1.96	1.92	1.91
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	27.5	23.0	27.0	30.0	29.0	29.0

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.0% dry	2.5% dry	2.0% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio (R_{HD})	%	99.5	99.0	98.0	96.5	97.5	99.0
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Material description

No 25 - 30 Clay Fill

AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909
Accredited for compliance with
ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 24200
Report No 24200/R006
Date Issued 22/05/24

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 15A	Date tested	01/05/24
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:39
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	31	32	33	34	35	36
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth mm	175	175	175	175	175	175
Field wet density t/m ³	1.81	1.92	1.95	1.94	1.95	1.90
Field moisture content %	21.7	21.8	22.1	24.7	20.3	21.3

Test procedure AS 1289.5.7.1

Test No	31	32	33	34	35	36
Compactive effort	Standard					
Oversize rock retained on sieve mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material wet	0	0	0	0	0	0
Peak Converted Wet Density t/m ³	1.90	1.96	1.98	1.99	1.99	1.95
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	22.0	24.5	24.5	26.5	22.5	24.0

Moisture Variation From Optimum Moisture Content	0.5% dry	2.5% dry	2.0% dry	1.5% dry	2.0% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio (R_{HD})	%	95.5	98.0	98.5	97.5	98.0	98.0
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Material description

No 31 - 36 Clay Fill

AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909
Accredited for compliance with
ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 24200
Report No 24200/R007
Date Issued 26/07/24

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 15A	Date tested	24/07/24
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:53
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	37	38	39	40	41	42
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth mm	175	175	175	175	175	175
Field wet density t/m ³	1.77	1.72	1.75	1.86	1.78	1.83
Field moisture content %	19.8	17.5	19.4	20.3	21.7	16.9

Test procedure AS 1289.5.7.1

Test No	37	38	39	40	41	42
Compactive effort	Standard					
Oversize rock retained on sieve mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material wet	0	0	0	0	0	0
Peak Converted Wet Density t/m ³	1.87	1.81	1.84	1.93	1.78	1.92
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	20.0	19.5	19.0	22.5	21.5	19.0

Moisture Variation From Optimum Moisture Content	0.0%	2.0% dry	0.5% wet	2.5% dry	0.5% wet	2.0% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio (R_{HD})	%	95.0	95.0	95.0	96.5	100.0	95.5
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Material description

No 37 - 42 Clay Fill

AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909
Accredited for compliance with
ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry