



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

28th February 2024

Our Reference: 23261:NB1799

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
EYNESBURY – STAGE 18B (EYNESBURY)

Please find attached our Report No's 23261/R001 to 23261/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 commenced in March 2023 and was completed in April 2023.

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).

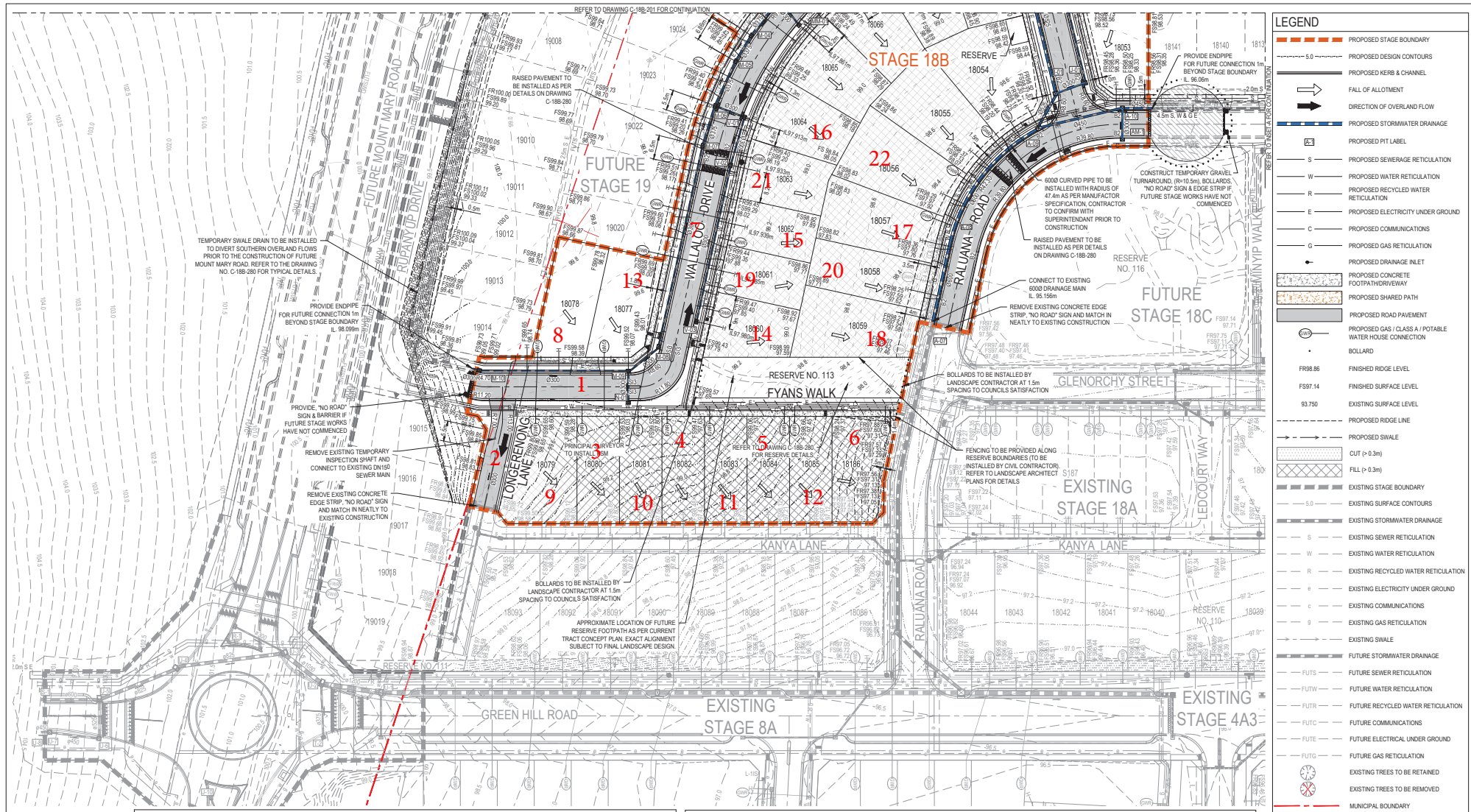
We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

Nick Brock

FIGURE 1 (1 of 2)



LEGEND	
	PROPOSED STAGE BOUNDARY
	PROPOSED DESIGN CONTOURS
	PROPOSED KERB & CHANNEL
	FALL OF ALLOTMENT
	DIRECTION OF OVERLAND FLOW
	PROPOSED STORMWATER DRAINAGE
	PROPOSED PIT LABEL
	PROPOSED SEWERAGE RETICULATION
	PROPOSED WATER RETICULATION
	PROPOSED RECYCLED WATER RETICULATION
	PROPOSED ELECTRICITY UNDER GROUND
	PROPOSED COMMUNICATIONS
	PROPOSED GAS RETICULATION
	PROPOSED DRAINAGE INLET
	PROPOSED CONCRETE FOOTPATH/DRIVEWAY
	PROPOSED SHARED PATH
	PROPOSED ROAD PAVEMENT
	PROPOSED GAS / CLASS A / POTABLE WATER HOUSE CONNECTION
	BOLLARD
	FINISHED RIDGE LEVEL
	FINISHED SURFACE LEVEL
	EXISTING SURFACE LEVEL
	PROPOSED RIDGE LINE
	PROPOSED SWALE
	CUT (> 0.3m)
	FILL (> 0.3m)
	EXISTING STAGE BOUNDARY
	EXISTING SURFACE CONTOURS
	EXISTING STORMWATER DRAINAGE
	EXISTING SEWER RETICULATION
	EXISTING WATER RETICULATION
	EXISTING RECYCLED WATER RETICULATION
	EXISTING ELECTRICITY UNDER GROUND
	EXISTING COMMUNICATIONS
	EXISTING GAS RETICULATION
	EXISTING SWALE
	FUTURE STORMWATER DRAINAGE
	FUTURE SEWER RETICULATION
	FUTURE WATER RETICULATION
	FUTURE RECYCLED WATER RETICULATION
	FUTURE COMMUNICATIONS
	FUTURE ELECTRICAL UNDER GROUND
	FUTURE GAS RETICULATION
	EXISTING TREES TO BE RETAINED
	EXISTING TREES TO BE REMOVED
	MUNICIPAL BOUNDARY

NOTE:
1. FOR GENERAL NOTES, REFER TO DRAWING NO. C-18B-002.

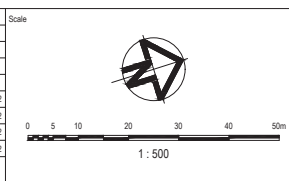


Approximate field density test location

ROAD LAYOUT TABLE									
ROAD NAME	ROAD CLASSIFICATION	RESERVE WIDTH (m)	ROAD WIDTH		KERB TYPE		VERGE WIDTH (m)		
			LIP to LIP	INV to INV	NTWHE	STWHEAS	NTWHE	STWHEAS	
RUPANYUP DRIVE (18045-18053)	AS2	16.00	6.40	7.30	B2	B2	4.20	4.20	
RUPANYUP DRIVE (18053-18070)	AS1	14.00	6.40	7.30	B2	B2	4.20	5.20	
RUPANYUP DRIVE (18070-18077)	AS1	16.00	6.40	7.30	B2	B2	4.20	4.20	
WALLALOO DRIVE	AS2	14.00	6.40	7.30	B2	B2	4.20	2.20	
WALLALOO DRIVE (RESERVE)	AL	8.00	6.00	-	-	-	1.00	1.00	

SERVICES OFFSET SCHEDULE										
ROAD NAME	GAS		WATER		RECYCLED WATER		TELECOMMS		ELEC	
	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)
RUPANYUP DRIVE (18045-18053)	N	1.80	N	2.80	N	2.30	S	1.00	S	2.30
RUPANYUP DRIVE (18059-18070)	E	1.80	E	2.80	E	2.30	E	3.30	E	3.80
WALLALOO DRIVE	NE	1.80	NE	2.80	NE	2.30	S/W	1.80	S/W	2.30
WALLALOO ROAD (RESERVE)	S/W	1.80	S/W	2.80	S/W	2.30	NE	0.25	NE	0.90
WYARS WALK	E	1.80	E	2.80	E	2.30	E	3.30	E	3.80
LONGSENGING LANE									N	0.50

Issue	Description	By	Old	PI	Date
01	ISSUED FOR CONSTRUCTION	WB	JR	SE	23.11.22
02	UPDATES TO ADDRESS COUNCIL COMMENTS	CM	JR	SE	13.06.22
03	UPDATES TO ADDRESS COUNCIL COMMENTS	CM	JR	SE	22.07.22
04	ISSUED FOR APPROVAL	CM	ZS	SE	07.04.22



Planner

RD RobertsDay
planning design place

Filename: C-18B-220-10229435-Roadworks&DrainagePlan.dwg

Client

RESIMAX GROUP

Status: **FOR CONSTRUCTION**

Checker: **J.ROCK**

Scales: 1:500

Original Size: **A1**

Height: **AHD**

Grid: **MGA**

Original Issue Signatures: **D. J. KEMENZ**

Designed: **R. J. ANGELES**

Project Manager: **S. EISEL**

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Project: **EYNESBURY TOWNSHIP STAGE 18B**

Title: **ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 1 OF 2**

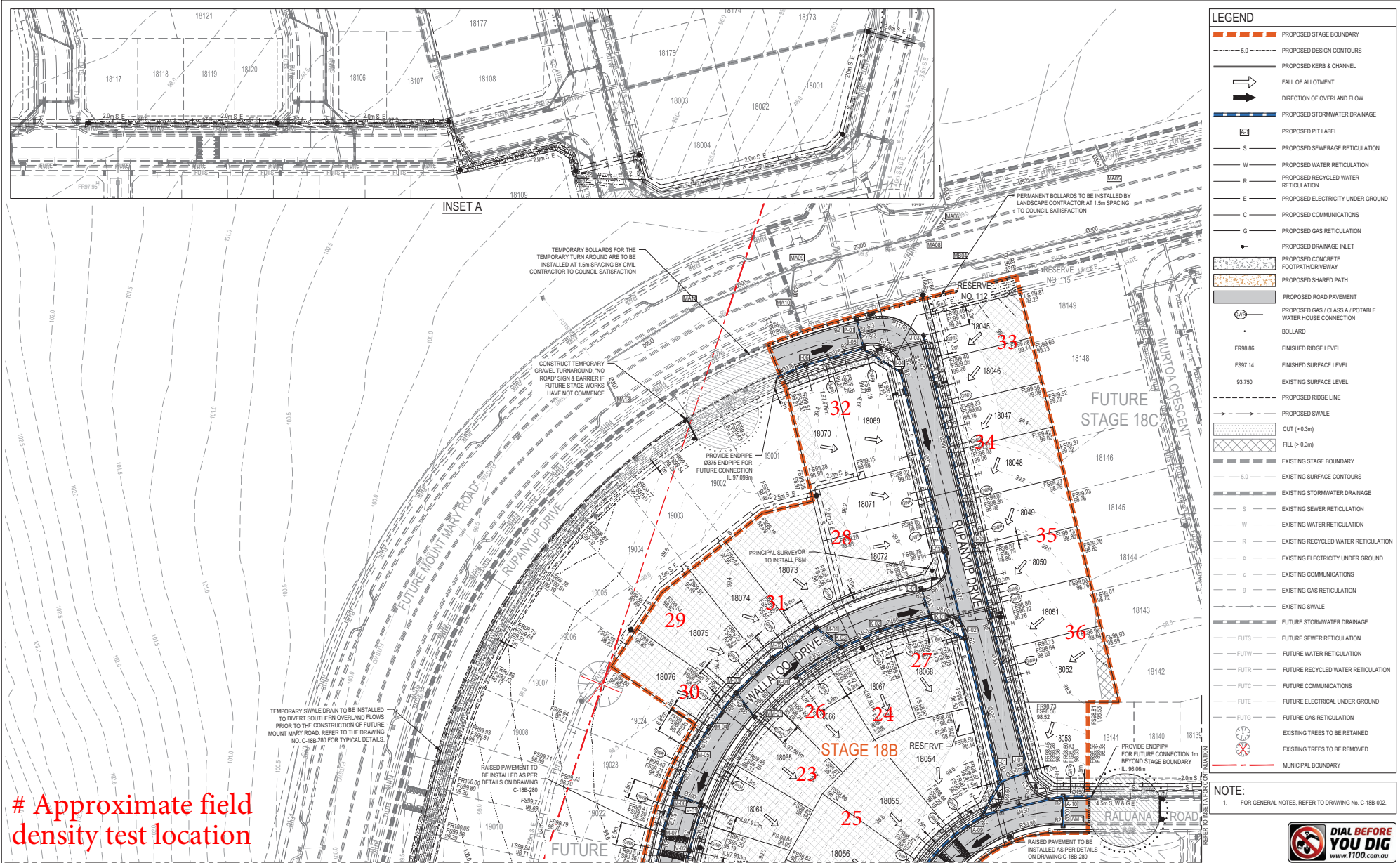
ARCADIS

Arcadis Australia Pacific Pty Limited
Level 18, Queen & Collins Tower
376-390 Collins Street
Melbourne VIC 3000 Australia
ABN 76 104 485 289
Tel No: +61 3 8623 4000

www.arcadis.com

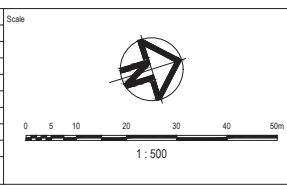
Drawing No: **C-18B-220** Project No: **10029435** Issue: **A**

FIGURE 1 (2 of 2)



Approximate field density test location

Issue	Description	By	Old	PKI	Date
A	ISSUED FOR CONSTRUCTION	WB	JR	SE	23.11.22
03	UPDATES TO ADDRESS COUNCIL COMMENTS	CM	JR	SE	13.06.22
02	UPDATES TO ADDRESS COUNCIL COMMENTS	CM	JR	SE	22.07.22
01	ISSUED FOR APPROVAL	CM	ZS	SE	07.04.22



Planner

RD RobertsDay
planning.design.place

Client

RESIMAX
GROUP

Filename: C-18B-220-10029435-Roadworks&DrainagePlan.dwg

Status

FOR CONSTRUCTION

Checker

J.ROCK

Scales

1:500

Original Size

A1

Height

AHD

Grid

MGA

Original Issue Signatures

Drawn: C.MENEZ

Designed: R.J.ANGELES

Project Manager: S.EISEL

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Project

EYNESBURY TOWNSHIP
STAGE 18B

Title

ROADWORKS AND DRAINAGE
LAYOUT PLAN
SHEET 2 OF 2

ARCADIS

Arcadis Australia Pacific Pty Limited
Level 18, Queen & Collins Tower
376-390 Collins Street
Melbourne VIC 3000 Australia
ABN 76 104 485 289
Tel No: +61 3 8623 4000

www.arcadis.com

Drawing No.

C-18B-221

Project No.

10029435

Issue

A

LAST SAVED: WBM1953 Date Plotted: 21 Nov 2022 - 01:03pm

File Name: C:\Users\wbm1953\Documents\Arcadis\AU-10029435-Eynesbury Estate\Project Files\01_WORK IN PROGRESS\01_Civil_CV\Stage18_19\Stage18B-18b-220-10029435-Roadworks&DrainagePlan.dwg

V1



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 23261
Report No 23261/R001
Date Issued 01/05/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	EYNESBURY - STAGE 18B	Date tested	18/04/23
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 08:00
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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	1.98	2.00	1.99	2.05	2.04	2.08
Field moisture content %	21.1	22.3	17.2	18.6	18.9	18.0

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	2.02	1.99	2.00	2.05	2.11	2.11
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	21.0	20.0	19.5	20.5	21.0	19.5

Moisture Variation From Optimum Moisture Content	0.0%	2.0% wet	2.5% dry	2.0% dry	2.0% dry	1.5% 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})	%	98.0	100.5	99.0	100.0	97.0	98.5
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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 23261
Report No 23261/R002
Date Issued 29/04/23
Tested by WS
Date tested 19/04/23
Checked by JHF

Client WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)
Project EYNESBURY - STAGE 18B
Location EYNESBURY

Feature EARTHWORKS Layer thickness 200 mm Time: 07:30

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	2.21	2.13	2.21	1.85	1.82	1.88
Field moisture content %	17.5	20.7	20.9	23.3	22.9	25.6

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	2.24	2.18	2.22	1.91	1.83	1.89
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	19.5	21.0	21.5	25.0	25.5	28.0

Moisture Variation From Optimum Moisture Content	2.0% dry	0.0%	0.5% dry	1.5% dry	2.5% 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})	%	98.5	97.5	99.5	96.5	99.0	99.0
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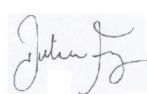
Material description

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 23261
Report No 23261/R003
Date Issued 29/04/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	EYNESBURY - STAGE 18B	Date tested	20/04/23
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:30
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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	2.02	1.98	1.99	1.97	2.02
Field moisture content %	19.2	22.2	17.9	19.1	19.8	19.6

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	2.08	2.10	2.00	2.00	2.01	2.03
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	19.5	22.5	20.0	21.5	22.0	22.0

Moisture Variation From Optimum Moisture Content	0.5% dry	0.0%	2.0% dry	2.0% dry	2.5% 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})	%	99.5	96.0	99.0	99.5	98.0	100.0
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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

Client WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)
Project EYNESBURY - STAGE 18B
Location EYNESBURY

Job No 23261
Report No 23261/R004
Date Issued 31/05/23

Tested by BS
Date tested 21/04/23
Checked by JHF

Feature **EARTHWORKS**

Layer thickness 200 mm

Time: 10:21

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	2.08	2.11	2.18	2.16	2.16	2.19
Field moisture content %	22.5	21.5	21.1	22.8	20.1	20.6

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	2.10	2.13	2.17	2.18	2.15	2.22
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	25.0	23.5	23.5	25.0	22.5	22.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.0% dry	2.0% dry	2.0% dry	1.5% 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	99.0	100.0	99.0	100.5	98.5
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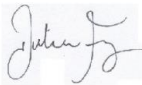
Material description

No 19 - 24 Clay Fill

AVRLOT HILF V1.10 MAR 13



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


Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)
Project EYNESBURY - STAGE 18B
Location EYNESBURY

Job No 23261
Report No 23261/R005
Date Issued 31/05/23

Tested by WS
Date tested 27/04/23
Checked by JHF

Feature EARTHWORKS

Layer thickness 200 mm

Time: 07:30

Test procedure AS 1289.2.1.1 & 5.8.1

Test No	25	26	27	-	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL						
Measurement depth mm	175	175	175	-	-	-
Field wet density t/m ³	2.11	2.07	2.12	-	-	-
Field moisture content %	20.7	19.1	18.7	-	-	-

Test procedure AS 1289.5.7.1

Test No	25	26	27	-	-	-
Compactive effort	Standard					
Oversize rock retained on sieve mm	19.0	19.0	19.0	-	-	-
Percent of oversize material wet	0	0	0	-	-	-
Peak Converted Wet Density t/m ³	2.16	2.10	2.14	-	-	-
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	23.0	21.5	21.0	-	-	-

Moisture Variation From Optimum Moisture Content	2.0% 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})	%	98.0	98.5	99.5	-	-	-
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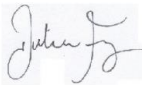
Material description

No 25 - 27 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 23261
Report No 23261/R006
Date Issued 22/05/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 18B	Date tested	09/05/23
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:47
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	28	29	30	31	32	33
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	1.87	1.85	1.98	1.91	1.98	2.00
Field moisture content %	23.9	24.3	21.3	20.9	24.2	25.6

Test procedure AS 1289.5.7.1

Test No	28	29	30	31	32	33
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	1.85	1.87	2.02	1.92	1.98	2.03
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	25.5	27.0	23.5	22.0	26.5	27.5

Moisture Variation From Optimum Moisture Content	1.5% dry	2.5% dry	2.0% dry	1.0% dry	2.5% 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})	%	101.0	99.0	98.5	99.5	100.0	98.5
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Material description

No 28 - 33 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 23261
Report No 23261/R007
Date Issued 31/05/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 18B	Date tested	10/05/23
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:52
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	34	35	36	-	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL						
Measurement depth mm	175	175	175	-	-	-
Field wet density t/m ³	1.99	1.95	2.01	-	-	-
Field moisture content %	21.1	26.1	21.7	-	-	-

Test procedure AS 1289.5.7.1

Test No	34	35	36	-	-	-
Compactive effort	Standard					
Oversize rock retained on sieve mm	19.0	19.0	19.0	-	-	-
Percent of oversize material wet	0	0	0	-	-	-
Peak Converted Wet Density t/m ³	2.02	1.97	1.99	-	-	-
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	22.5	28.5	24.0	-	-	-

Moisture Variation From Optimum Moisture Content	1.5% dry	2.5% 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})	%	98.5	99.0	100.5	-	-	-
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Material description

No 34 - 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