



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

12th December 2023

Our Reference: 23322:NB1764

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
NEWBRIDGE – STAGE 16 (WALLAN)

Please find attached our Report No's 23322/R001 to 23322/R017 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 April 2023 and was completed in July 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).

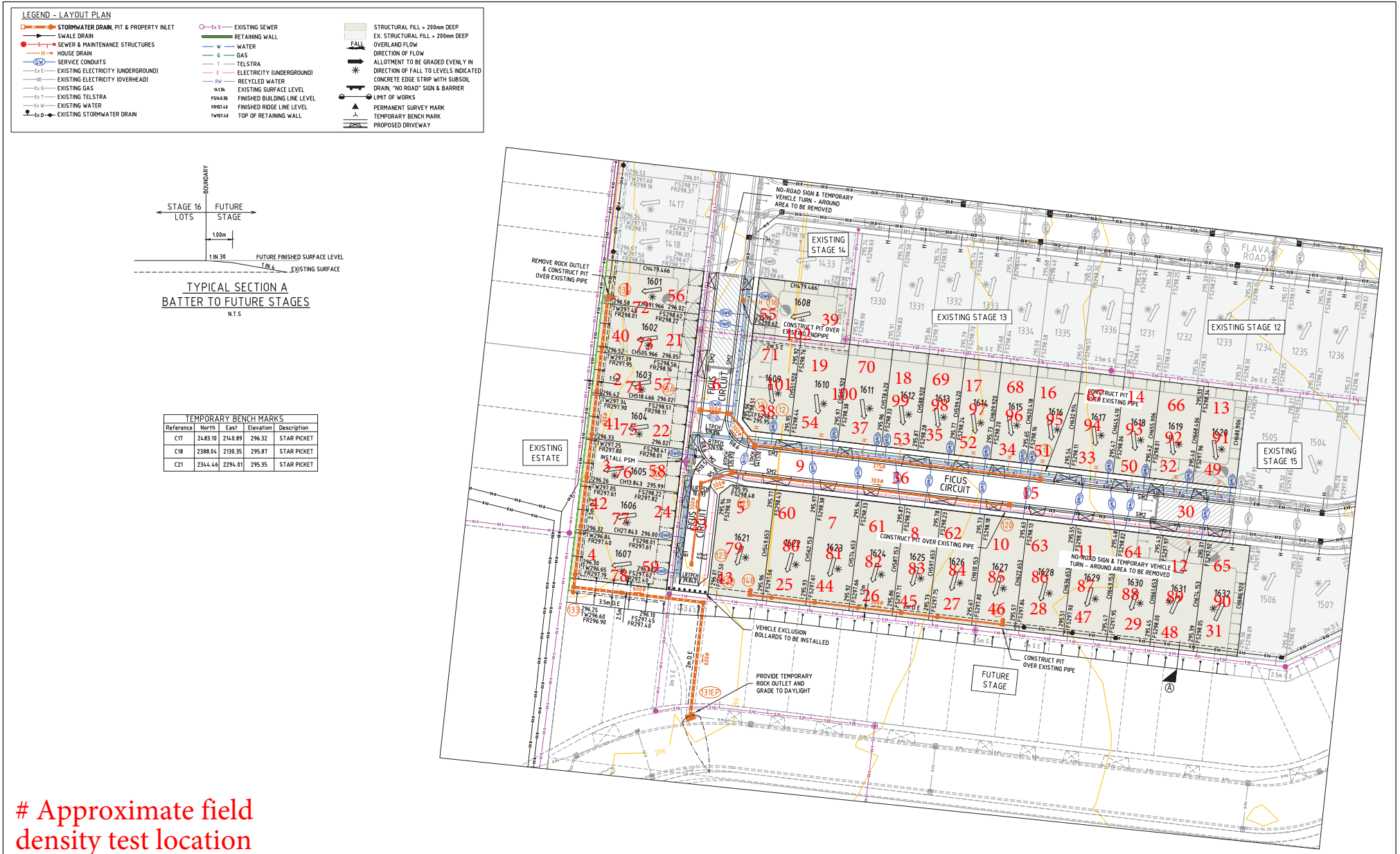
We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

Nick Brock

FIGURE 1



				 		Highway Reference 665 E4	UrbanDesign and management Urban Design and Management Pty Ltd PO Box 468 Sunbury 3429 Phone: +61 3 9971 6300 Fax: +61 3 9971 6399 Office 1, Level 1, 114 Evans Street, Sunbury, VIC, 3429	Designed M.ROSSITTO Checked T.PHILLIPS Approved T.MILUNKOVIC Date DECEMBER 2021	NEWBRIDGE SOUTH ESTATE STAGE 16 MITCHELL SHIRE COUNCIL DETAIL PLAN	Drawing No: 18040-16-02 Revision: A Sheet No: 02 of 11 Scale @ A1 0 5 10 20 1:500 © Urban Design and Management Pty Ltd ABN 62 525 443 166
A ISSUED TO COUNCIL No. REVISION DATE DESIGNED APPROVED				Issued for Approval Not to be used for construction		Principal RESIMAX GROUP PTY LTD 2 DREWERY PLACE MELBOURNE VIC 3000	Project Management Land Development Civil Engineering Traffic and Transport Engineering Urban Design			



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 23322
Report No 23322/R001
Date Issued 23/06/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	13/04/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:35
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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	1.93	1.89	1.87	1.88	1.84	1.89
Field moisture content %	21.1	24.6	21.8	20.9	23.9	24.2

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	1.95	1.92	1.89	1.91	1.87	1.91
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	23.5	27.5	24.0	23.5	26.5	26.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.5% dry	2.5% 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})	%	99.0	99.0	99.0	98.5	98.5	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 23322
Report No 23322/R002
Date Issued 23/06/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	14/04/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:27
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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	1.87	1.89	1.88	1.87	1.86	1.85
Field moisture content %	23.5	20.9	18.2	18.9	21.2	19.5

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	1.91	1.92	1.91	1.91	1.91	1.92
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	25.5	23.5	20.5	21.5	23.5	22.0

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})	%	98.0	98.5	98.5	97.5	97.5	96.5
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Material description

No 7 - 12 Clay Fill

AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909
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ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 23322
Report No 23322/R003
Date Issued 21/07/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	18/04/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:34
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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	1.87	1.85	1.90	1.89	1.85	1.89
Field moisture content %	19.6	18.1	19.3	19.9	20.0	18.3

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	1.91	1.91	1.93	1.94	1.91	1.95
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	22.0	20.5	21.5	22.5	22.5	20.5

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	2.5% dry	2.5% 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})	%	98.0	97.0	98.0	97.5	96.5	97.0
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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 23322
Report No 23322/R004
Date Issued 20/06/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	19/04/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:29
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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	1.89	1.90	1.89	1.86	1.87	1.86
Field moisture content %	21.9	22.5	23.8	22.4	19.6	21.6

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	1.94	1.96	1.93	1.88	1.89	1.91
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	24.5	24.5	26.5	24.5	21.5	24.0

Moisture Variation From Optimum Moisture Content	2.5% dry	2.0% dry	2.5% dry	2.0% 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})	%	97.5	97.0	98.0	99.0	99.0	97.5
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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
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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 23322
Report No 23322/R005
Date Issued 21/07/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	21/04/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:05
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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	1.85	1.85	1.89	1.90	1.88	1.89
Field moisture content %	23.6	22.8	22.0	21.6	26.2	23.0

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	1.91	1.91	1.98	1.92	1.92
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	26.0	24.5	24.0	24.0	29.0	25.5

Moisture Variation From Optimum Moisture Content	2.5% dry	1.5% dry	2.0% dry	2.5% 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})	%	97.0	97.0	99.5	96.5	98.0	98.0
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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 23322
Report No 23322/R006
Date Issued 24/07/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	26/04/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:31
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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	1.90	1.91	1.92	1.90	1.92	1.92
Field moisture content %	19.9	22.2	19.8	20.0	20.9	21.1

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	1.91	1.91	1.91	1.89	1.91	1.92
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	22.0	25.0	22.5	22.5	23.5	23.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.5% 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})	%	99.0	99.5	100.5	100.5	100.5	100.0
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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

Justin Fry

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 23322
Report No 23322/R007
Date Issued 31/08/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	22/05/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:27
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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	1.90	1.88	1.88	1.91	1.91	1.90
Field moisture content %	16.8	22.7	21.0	20.5	24.1	17.6

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	1.95	1.95	1.91	1.96	1.94	1.96
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	19.0	25.5	23.5	23.0	26.5	20.0

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.5% 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})	%	97.0	96.0	98.5	97.5	98.5	97.0
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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



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 23322
Report No 23322/R008
Date Issued 09/08/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	30/05/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:27
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	43	44	45	46	47	48
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	1.87	1.88	1.88	1.90	1.89
Field moisture content %	19.6	25.5	28.0	24.9	22.8	23.7

Test procedure AS 1289.5.7.1

Test No	43	44	45	46	47	48
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	1.91	1.92	1.93	1.95	1.95
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	22.0	28.0	30.5	27.5	25.0	26.0

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})	%	98.0	98.0	98.0	97.5	97.0	97.0
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Material description

No 43 - 48 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 23322
Report No 23322/R009
Date Issued 31/07/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	07/06/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:31
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	49	50	51	52	53	54
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	1.88	1.86	1.87	1.86	1.85
Field moisture content %	26.3	24.5	22.1	20.4	26.4	19.9

Test procedure AS 1289.5.7.1

Test No	49	50	51	52	53	54
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	1.93	1.91	1.91	1.93	1.89
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	26.5	27.0	24.5	23.0	29.0	22.0

Moisture Variation From Optimum Moisture Content	0.0%	2.0% dry	2.5% dry	2.5% 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})	%	97.0	97.0	97.0	97.5	96.5	98.0
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Material description

No 49 - 54 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 23322
Report No 23322/R010
Date Issued 15/08/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	09/06/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:33
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	55	56	57	58	59	60
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	1.86	1.86	1.91	1.90	1.86
Field moisture content %	23.5	24.5	23.4	19.1	20.8	24.3

Test procedure AS 1289.5.7.1

Test No	55	56	57	58	59	60
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	1.88	1.91	1.93	1.93	1.94
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	26.0	23.5	23.0	17.0	20.5	23.5

Moisture Variation From Optimum Moisture Content	2.5% dry	1.0% wet	0.0%	2.0% wet	0.0%	1.0% wet
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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	97.5	98.5	99.0	96.0
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Material description

No 55 - 60 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 23322
Report No 23322/R011
Date Issued 31/08/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	14/06/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:33
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	61	62	63	64	65	66
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	1.88	1.88	1.87	1.87	1.89
Field moisture content %	17.4	16.4	16.5	19.1	18.8	21.6

Test procedure AS 1289.5.7.1

Test No	61	62	63	64	65	66
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	1.89	1.91	1.92	1.86	1.90	1.91
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	20.0	18.0	18.5	21.5	21.0	24.0

Moisture Variation From Optimum Moisture Content	2.5% dry	2.0% 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})	%	99.0	98.0	98.0	100.5	98.5	98.5
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Material description

No 61 - 66 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 23322
Report No 23322/R012
Date Issued 31/07/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	20/06/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 08:01
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	67	68	69	70	71	72
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	1.85	1.85	1.85	1.88	1.88	1.85
Field moisture content %	20.2	19.7	17.3	19.0	27.0	26.2

Test procedure AS 1289.5.7.1

Test No	67	68	69	70	71	72
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	1.89	1.91	1.94	1.96	1.89
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	22.5	21.5	19.5	21.0	29.5	28.5

Moisture Variation From Optimum Moisture Content	2.5% dry	2.0% dry	2.5% dry	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})	%	97.0	97.5	96.5	97.0	95.5	98.0
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Material description

No 67 - 72 Clay Fill

AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 23322
Report No 23322/R013
Date Issued 31/07/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	26/06/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:25
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	73	74	75	76	77	78
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	1.88	1.89	1.90	1.90	1.88	1.90
Field moisture content %	25.4	26.0	24.3	20.1	19.1	20.4

Test procedure AS 1289.5.7.1

Test No	73	74	75	76	77	78
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	1.91	1.94	1.93	1.91	1.94
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	27.5	28.5	27.0	22.5	21.5	23.0

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.5% dry	2.5% 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	98.0	98.5	98.5	98.0
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Material description

No 73 - 78 Clay Fill

AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 23322
Report No 23322/R014
Date Issued 01/08/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	30/06/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:32
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	79	80	81	82	83	84
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	1.91	1.90	1.89	1.89	1.90
Field moisture content %	22.2	18.8	21.1	17.4	21.6	21.2

Test procedure AS 1289.5.7.1

Test No	79	80	81	82	83	84
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	1.92	1.96	1.91	1.91	1.91	1.91
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	24.0	20.5	23.5	20.0	24.0	23.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.5% dry	2.5% 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})	%	99.5	98.0	99.0	99.0	99.0	99.5
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Material description

No 79 - 84 Clay Fill

AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 23322
Report No 23322/R015
Date Issued 15/08/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	10/07/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:25
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	85	86	87	88	89	90
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	1.89	1.86	1.89	1.88	1.85	1.86
Field moisture content %	19.2	18.3	19.2	17.7	17.5	17.6

Test procedure AS 1289.5.7.1

Test No	85	86	87	88	89	90
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	1.91	1.93	1.93	1.84	1.91
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	21.5	20.0	21.5	19.0	20.0	20.0

Moisture Variation From Optimum Moisture Content	2.5% dry	2.0% dry	2.0% 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})	%	96.0	97.5	97.5	97.0	100.5	97.0
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Material description

No 85 - 90 Clay Fill

AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 23322
Report No 23322/R016
Date Issued 31/08/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	12/07/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:32
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	91	92	93	94	95	96
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	1.90	1.88	1.90	1.89	1.87
Field moisture content %	19.8	19.1	16.6	21.9	16.5	20.2

Test procedure AS 1289.5.7.1

Test No	91	92	93	94	95	96
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	1.89	1.95	1.89	1.93	1.91	1.88
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	21.5	21.0	19.0	24.5	19.0	22.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.0% dry	2.5% 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})	%	99.0	97.5	99.5	98.0	99.0	99.5
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Material description

No 91 - 96 Clay Fill

AVRLOT HILF V1.10 MAR 13



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COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 23322
Report No 23322/R017
Date Issued 31/08/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 16	Date tested	18/07/23
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:15
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	97	98	99	100	101	102
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	1.88	1.92	1.85	1.93	1.90	1.93
Field moisture content %	20.2	21.4	22.6	21.8	22.0	22.5

Test procedure AS 1289.5.7.1

Test No	97	98	99	100	101	102
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	1.95	1.94	1.95	1.96	1.96	1.99
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	21.5	23.5	23.5	24.5	23.0	24.5

Moisture Variation From Optimum Moisture Content	1.5% dry	2.0% dry	1.0% dry	2.5% dry	1.0% 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})	%	96.5	99.0	95.0	98.5	97.0	97.0
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Material description

No 97 - 102 Clay Fill

AVRLOT HILF V1.10 MAR 13



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ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry