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

6th June 2023

Our Reference: 21681:NB1573

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
NEWBRIDGE – STAGE 9 (WALLAN)

Please find attached our Report No's 21681/R001 to 21681/R019 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 October 2021 and was completed in June 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).

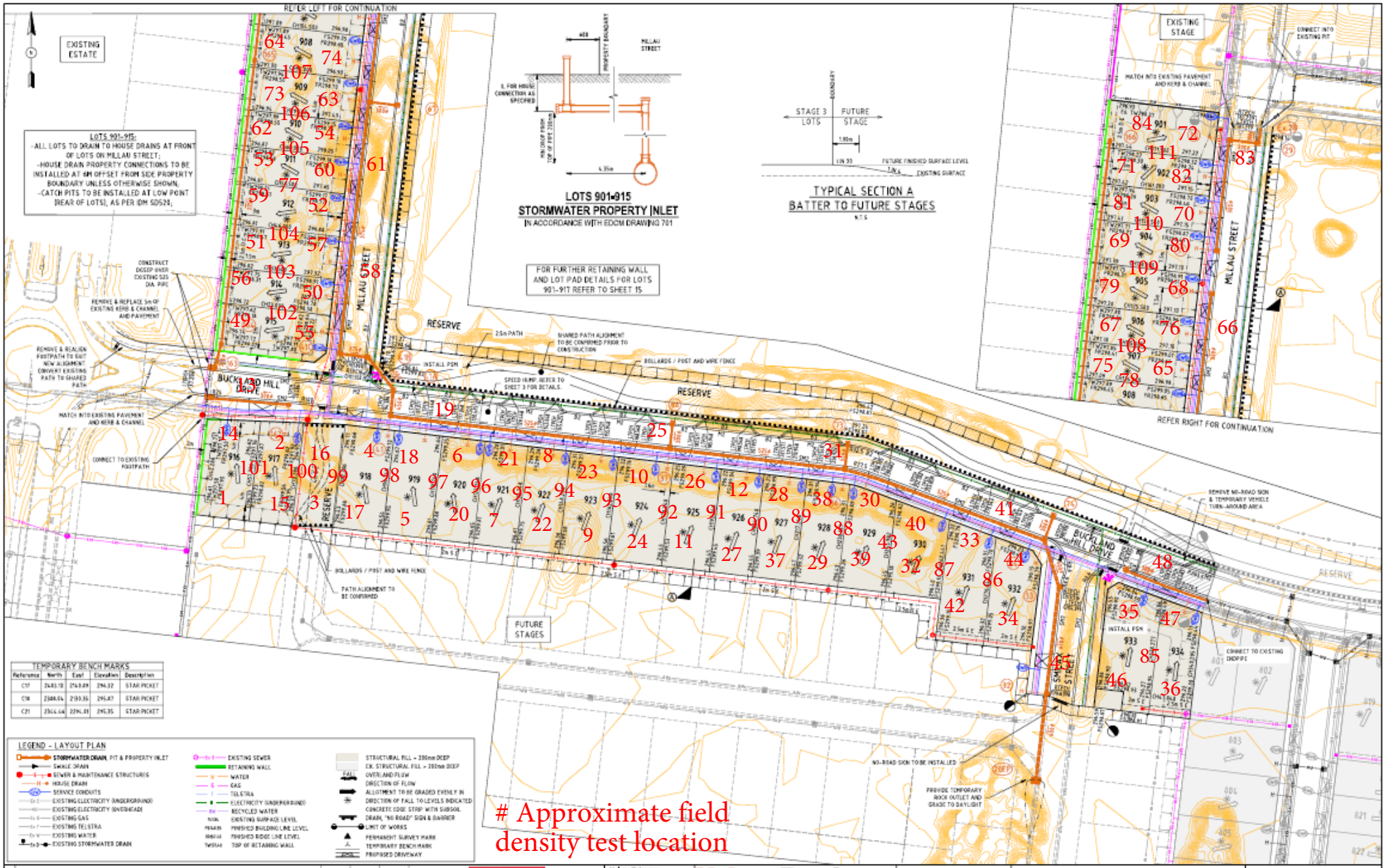
We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

Nick Brock

FIGURE 1


REFER LEFT FOR CONTINUATION
EXISTING ESTATE
LOTS 901-915:
-ALL LOTS TO DRAIN TO HOUSE DRAINS AT FRONT OF LOTS ON MILLAU STREET;
-HOUSE DRAIN PROPERTY CONNECTIONS TO BE INSTALLED AT 4M OFFSET FROM SIDE PROPERTY BOUNDARY UNLESS OTHERWISE SHOWN.
-CATCH PITS TO BE INSTALLED AT LOW POINT (REAR OF LOTS), AS PER IDM SD524.
LOTS 901-915
STORMWATER PROPERTY INLET
IN ACCORDANCE WITH EDCM DRAWING 701
TYPICAL SECTION A
BATTER TO FUTURE STAGES
FOR FURTHER RETAINING WALL AND LOT PAD DETAILS FOR LOTS 901-917 REFER TO SHEET 15
MILLAU STREET
BUCKLAND HILL DRIVE
RESERVE
25m PATH
SHARED PATH ALIGNMENT TO BE CONFIRMED PRIOR TO CONSTRUCTION
BOLLARDS / POST AND WIRE FENCE
INSTALL PSH
SPEED HUMP. REFER TO SHEET 3 FOR DETAILS.
CONSTRUCT DOSEP OVER EXISTING 525 DIA. PIPE
REMOVE & REPLACE 5m OF EXISTING KERB & CHANNEL AND PAVEMENT
REMOVE & REALIGN FOOTPATH TO SUIT NEW ALIGNMENT. CONVERT EXISTING PATH TO SHARED PATH
MATCH INTO EXISTING PAVEMENT AND KERB & CHANNEL
CONNECT TO EXISTING FOOTPATH
PATH ALIGNMENT TO BE CONFIRMED
FUTURE STAGES
EXISTING STAGE
REFER RIGHT FOR CONTINUATION
REMOVE NO-ROAD SIGN & TEMPORARY VEHICLE TURN-AROUND AREA
CONNECT TO EXISTING DOSP'E
NO-ROAD SIGN TO BE INSTALLED
PROVIDE TEMPORARY ROCK OUTLET AND GRADE TO DAYLIGHT
TEMPORARY BENCH MARKS
LEGEND - LAYOUT PLAN
Approximate field density test location
Issued for Approval
NEWBRIDGE SOUTH ESTATE
STAGE 9
MITCHELL SHIRE COUNCIL
PAVEMENT DETAILS & TYPICAL SECTIONS
Drawing No: 18040-09-02
Revision: B
UrbanDesign and management

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	21681
		Report No	21681/R001
		Date Issued	25/10/21
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	08/10/21
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 12:31

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**1**	**2**	**3**	**-**	**-**	**-**
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/m³*	1.86	1.87	1.91	-	-	-
Field moisture content	*%*	23.6	23.5	24.2	-	-	-

Test procedure AS 1289.5.7.1

Test No		1	2	3	-	-	-
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/m³*	1.90	1.94	2.00	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	21.5	23.5	24.0	-	-	-

Moisture Variation From Optimum Moisture Content	2.5% wet	0.0%	0.5% wet	-	-	-

Density Ratio (R_{HD})	*%*	**97.5**	**96.0**	**95.5**	**-**	**-**	**-**

Material description

No 1 - 3 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	21681
		Report No	21681/R002
		Date Issued	05/11/21
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	11/10/21
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 14:46

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**4**	**5**	**6**	**7**	**8**	**9**
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/m³*	1.95	1.93	1.94	1.91	1.96	1.93
Field moisture content	*%*	23.8	22.7	26.0	23.6	21.9	21.7

Test procedure AS 1289.5.7.1

Test No		4	5	6	7	8	9
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/m³*	2.00	2.01	1.97	1.95	2.01	1.98
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	23.0	22.5	24.5	21.5	19.5	19.5

Moisture Variation From Optimum Moisture Content		1.0% wet	0.0%	1.5% wet	2.0% wet	2.5% wet	2.0% wet
Density Ratio (R_{HD})	*%*	**97.5**	**96.0**	**98.5**	**98.0**	**97.5**	**97.5**

Material description

No 4 - 9 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	21681
		Report No	21681/R003
		Date Issued	05/11/21
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	12/10/21
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 14:06

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**10**	**11**	**12**	**13**	**14**	**15**
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/m³*	2.01	2.02	1.99	2.06	1.98	2.00
Field moisture content	*%*	22.3	19.8	21.0	22.0	27.5	21.8

Test procedure AS 1289.5.7.1

Test No		10	11	12	13	14	15
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/m³*	2.07	2.06	2.06	2.08	2.05	2.07
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	24.5	20.5	23.5	24.0	30.5	24.0

Moisture Variation From Optimum Moisture Content		2.0% dry	0.5% dry	2.0% dry	2.0% dry	2.5% dry	2.0% dry
Density Ratio (R_{HD})	*%*	**97.5**	**98.0**	**96.5**	**99.0**	**96.5**	**96.5**

Material description

No 10 - 15 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	21681
		Report No	21681/R004
		Date Issued	05/11/21
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	13/10/21
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 14:32

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**16**	**17**	**18**	**19**	**20**	**21**
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/m³*	1.92	1.99	1.98	1.91	2.10	2.03
Field moisture content	*%*	25.1	24.3	20.0	21.2	24.4	24.1

Test procedure AS 1289.5.7.1

Test No		16	17	18	19	20	21
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/m³*	1.99	2.01	2.00	1.93	2.13	2.06
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	23.0	22.5	22.5	23.5	24.5	26.0

Moisture Variation From Optimum Moisture Content	2.0% wet	2.0% wet	2.5% dry	2.5% dry	0.0%	2.0% dry

Density Ratio (R_{HD})	*%*	**96.5**	**99.0**	**98.5**	**99.0**	**98.5**	**98.5**

Material description

No 16 - 21 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	21681
		Report No	21681/R005
		Date Issued	19/05/23
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	11/01/22
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 12:36

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**22**	**23**	**24**	**25**	**26**	**27**
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/m³*	1.97	2.04	2.01	2.05	2.05	1.98
Field moisture content	*%*	21.1	21.2	24.1	22.4	21.8	23.4

Test procedure AS 1289.5.7.1

Test No		22	23	24	25	26	27
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/m³*	2.02	2.12	2.06	2.07	2.05	2.05
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	22.5	23.0	25.5	24.5	23.0	25.0

Moisture Variation From Optimum Moisture Content		1.5% dry	2.0% dry	1.5% dry	2.0% dry	1.0% dry	1.5% dry

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**	**96.5**	**97.5**	**99.0**	**100.0**	**96.5**

Material description

No 22 - 27 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	21681
		Report No	21681/R006
		Date Issued	19/05/23
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	12/01/22
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 13:33

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/m³*	1.99	1.98	1.98	2.06	2.02	2.01
Field moisture content	*%*	21.5	22.3	24.1	22.9	22.2	21.5

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/m³*	2.05	2.06	2.07	2.09	2.08	2.05
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	23.5	24.5	25.0	24.5	23.5	23.5

Moisture Variation From Optimum Moisture Content		2.0% dry	2.0% dry	1.0% dry	1.0% dry	1.5% dry	2.0% dry

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**	**95.5**	**98.5**	**97.0**	**98.0**

Material description

No 28 - 33 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	21681
		Report No	21681/R007
		Date Issued	14/02/22
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	18/01/22
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 07:29

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**34**	**35**	**36**	**37**	**38**	**39**
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/m³*	1.95	1.87	1.90	1.96	1.89	1.91
Field moisture content	*%*	21.0	18.6	21.2	21.9	21.3	19.0

Test procedure AS 1289.5.7.1

Test No		34	35	36	37	38	39
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/m³*	1.98	1.91	1.93	1.97	1.87	1.89
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	21.5	21.0	23.5	24.0	24.0	21.5

Moisture Variation From Optimum Moisture Content		0.5% dry	2.5% dry	2.5% dry	2.0% dry	2.5% dry	2.5% dry
Density Ratio (R_{HD})	*%*	**99.0**	**98.0**	**98.5**	**99.5**	**101.0**	**101.5**

density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Material description

No 34 - 39 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	21681
		Report No	21681/R008
		Date Issued	14/02/22
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	19/01/22
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 08:32

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**40**	**41**	**42**	**43**	**44**	**45**
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/m³*	1.99	1.98	2.01	1.99	2.02	2.04
Field moisture content	*%*	22.0	23.0	21.9	21.7	24.1	22.9

Test procedure AS 1289.5.7.1

Test No		40	41	42	43	44	45
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/m³*	2.04	2.01	2.07	2.05	2.05	2.07
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	24.0	25.5	23.5	23.0	26.0	25.5

Moisture Variation From Optimum Moisture Content		2.0% dry	2.5% dry	1.5% dry	1.5% dry	2.0% dry	2.5% dry
Density Ratio (R_{HD})	*%*	**97.5**	**98.5**	**97.5**	**97.0**	**98.5**	**98.5**

density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Material description

No 40 - 45 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	21681
		Report No	21681/R009
		Date Issued	14/02/22
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	21/01/22
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 07:26

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**46**	**47**	**48**	**49**	**50**	**51**
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/m³*	1.95	1.95	1.94	1.92	1.91	1.92
Field moisture content	*%*	18.0	18.6	20.9	20.0	19.2	21.3

Test procedure AS 1289.5.7.1

Test No		46	47	48	49	50	51
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/m³*	1.97	2.00	1.97	1.95	1.92	1.95
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	20.5	21.5	23.5	22.5	21.0	24.0

Moisture Variation From Optimum Moisture Content		2.5% dry	2.5% dry	2.5% dry	2.5% dry	1.5% dry	2.5% dry

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**	**98.5**	**98.5**	**100.0**	**98.0**

Material description

No 46 - 51 Clay Fill

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	21681
		Report No	21681/R010
		Date Issued	14/02/22
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	24/01/22
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 07:32

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**52**	**53**	**54**	**55**	**56**	**57**
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/m³*	1.99	1.97	1.96	1.99	2.09	2.07
Field moisture content	*%*	18.8	18.0	19.3	19.6	17.5	21.4

Test procedure AS 1289.5.7.1

Test No		52	53	54	55	56	57
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/m³*	1.99	1.99	1.99	2.02	2.10	2.09
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	21.0	20.5	22.0	22.0	20.0	24.0

Moisture Variation From Optimum Moisture Content		2.5% dry	2.5% dry	2.5% dry	2.5% dry	2.5% dry	2.5% dry

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**	**98.0**	**99.0**	**99.5**	**99.0**

Material description

No 52 - 57 Clay Fill

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	21681
		Report No	21681/R011
		Date Issued	15/02/22
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	01/02/22
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 07:34

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**58**	**59**	**60**	**61**	**62**	**63**
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/m³*	1.95	1.89	1.93	1.92	1.91	1.90
Field moisture content	*%*	22.5	18.3	18.6	17.5	18.9	25.3

Test procedure AS 1289.5.7.1

Test No		58	59	60	61	62	63
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/m³*	1.98	1.93	1.97	1.93	1.93	1.94
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	24.5	21.0	21.5	20.0	21.0	27.0

Moisture Variation From Optimum Moisture Content		2.0% dry	2.5% dry	2.5% dry	2.5% dry	2.5% dry	1.5% dry

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**	**98.0**	**98.0**	**99.5**	**99.0**	**98.0**

Material description

No 58 - 63 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	21681
		Report No	21681/R012
		Date Issued	11/02/22
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	02/02/22
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 07:31

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**64**	**65**	**66**	**67**	**68**	**69**
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/m³*	1.98	1.97	1.98	1.96	1.97	1.95
Field moisture content	*%*	24.1	24.2	23.4	20.0	20.8	24.2

Test procedure AS 1289.5.7.1

Test No		64	65	66	67	68	69
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/m³*	2.03	2.01	2.01	1.98	2.02	1.97
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	24.5	26.5	24.5	22.0	21.0	24.0

Moisture Variation From Optimum Moisture Content		0.5% dry	2.5% dry	1.0% dry	2.0% dry	0.5% dry	0.0%

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**	**98.0**	**98.5**	**99.0**	**97.5**	**99.0**

Material description

No 64 - 69 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	21681
		Report No	21681/R013
		Date Issued	11/02/22
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	03/02/22
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 07:33

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**70**	**71**	**72**	**73**	**74**	**75**
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/m³*	1.86	1.85	1.83	1.85	1.87	1.85
Field moisture content	*%*	20.4	22.6	19.6	20.9	20.4	21.2

Test procedure AS 1289.5.7.1

Test No		70	71	72	73	74	75
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/m³*	1.90	1.88	1.86	1.89	1.92	1.91
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	20.5	22.5	22.0	23.5	23.0	22.5

Moisture Variation From Optimum Moisture Content	0.0%	0.0%	2.5% dry	2.5% dry	2.5% dry	1.5% dry

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**	**98.0**	**98.0**	**97.5**	**97.0**

Material description

No 70 - 75 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	21681
		Report No	21681/R014
		Date Issued	06/06/23
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	13/04/23
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 13:59

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**76**	**77**	**78**	**79**	**80**	**81**
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/m³*	2.15	2.17	2.16	2.16	2.17	2.12
Field moisture content	*%*	19.2	19.9	19.6	19.0	18.4	20.3

Test procedure AS 1289.5.7.1

Test No		76	77	78	79	80	81
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/m³*	2.15	2.16	2.19	2.17	2.16	2.14
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	21.5	22.5	22.0	21.0	21.0	23.0

Moisture Variation From Optimum Moisture Content		2.0% dry	2.5% dry	2.5% dry	2.0% dry	2.0% dry	2.5% dry

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**	**101.0**	**98.5**	**99.5**	**100.5**	**99.5**

Material description

No 76 - 81 Clay Fill

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	21681
		Report No	21681/R015
		Date Issued	06/06/23
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	14/04/23
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 14:55

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**82**	**83**	**84**	**85**	**86**	**87**
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/m³*	2.11	2.05	2.16	2.16	2.15	2.16
Field moisture content	*%*	22.3	21.1	20.0	19.5	22.3	21.7

Test procedure AS 1289.5.7.1

Test No		82	83	84	85	86	87
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/m³*	2.10	2.05	2.16	2.19	2.13	2.17
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	25.0	23.5	22.5	21.5	24.5	23.5

Moisture Variation From Optimum Moisture Content		2.5% dry	2.5% dry	2.5% dry	2.0% dry	2.0% dry	2.0% dry

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})	*%*	**100.5**	**100.0**	**100.0**	**99.0**	**101.5**	**99.5**

Material description

No 82 - 87 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	21681
		Report No	21681/R016
		Date Issued	06/06/23
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	17/04/23
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 07:30

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**88**	**89**	**90**	**91**	**92**	**93**
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/m³*	2.13	2.15	2.14	2.15	2.18	2.17
Field moisture content	*%*	22.4	28.0	28.0	28.1	23.2	20.8

Test procedure AS 1289.5.7.1

Test No		88	89	90	91	92	93
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/m³*	2.11	2.16	2.13	2.14	2.18	2.17
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	25.0	30.0	30.5	30.5	25.5	23.5

Moisture Variation From Optimum Moisture Content		2.5% dry	2.0% dry	2.5% dry	2.5% dry	2.0% dry	2.5% dry

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**	**100.0**	**100.5**	**100.5**	**99.5**	**100.0**

Material description

No 88 - 93 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	21681
		Report No	21681/R017
		Date Issued	06/06/23
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	30/05/23
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 13:26

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**94**	**95**	**96**	**97**	**98**	**99**
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/m³*	1.96	1.98	1.96	1.95	1.97	1.95
Field moisture content	*%*	19.3	22.5	20.2	22.2	21.6	19.6

Test procedure AS 1289.5.7.1

Test No		94	95	96	97	98	99
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/m³*	1.99	2.01	1.97	1.96	2.01	2.00
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	21.5	25.0	22.5	22.0	23.0	19.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.0% dry	0.0%	1.5% dry	0.0%

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**	**98.5**	**99.5**	**99.0**	**97.5**	**98.0**

Material description

No 94 - 99 Clay Fill

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	21681
		Report No	21681/R018
		Date Issued	06/06/23
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	31/05/23
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 14:33

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**100**	**101**	**102**	**103**	**104**	**105**
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/m³*	1.96	1.92	1.94	1.93	1.94	1.93
Field moisture content	*%*	20.9	21.4	21.5	23.5	20.5	22.4

Test procedure AS 1289.5.7.1

Test No		100	101	102	103	104	105
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/m³*	2.05	1.96	2.00	1.95	2.01	1.97
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	23.0	23.5	23.5	26.0	23.0	24.5

Moisture Variation From Optimum Moisture Content		2.0% dry	2.0% dry	2.0% dry	2.5% dry	2.0% dry	2.0% dry
Density Ratio (R_{HD})	*%*	**95.5**	**98.0**	**97.0**	**99.0**	**96.5**	**98.5**

density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Material description

No 100 - 105 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	21681
		Report No	21681/R019
		Date Issued	06/06/23
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	NEWBRIDGE - STAGE 9	*Date tested*	01/06/23
Location	WALLAN	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 15:29

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**106**	**107**	**108**	**109**	**110**	**111**
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/m³*	1.94	1.94	1.92	1.91	1.92	1.89
Field moisture content	*%*	23.7	19.0	19.3	21.8	20.2	20.0

Test procedure AS 1289.5.7.1

Test No		106	107	108	109	110	111
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/m³*	1.96	1.94	1.96	1.94	1.90	1.93
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	23.5	21.5	22.0	24.5	22.0	22.0

Moisture Variation From Optimum Moisture Content	0.0%	2.5% dry	2.5% dry	2.5% dry	1.5% dry	2.0% dry

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**	**100.0**	**98.5**	**98.5**	**101.0**	**98.0**

Material description

No 106 - 111 Clay Fill