



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

5<sup>th</sup> May 2023

Our Reference: 22671:NB1532

Winslow Constructors Pty Ltd  
50 Barry Road  
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING  
SMITHS LANE – STAGE 5 (CLYDE NORTH)**

Please find attached our Report No's 22671/R001 to 22671/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 was performed 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).

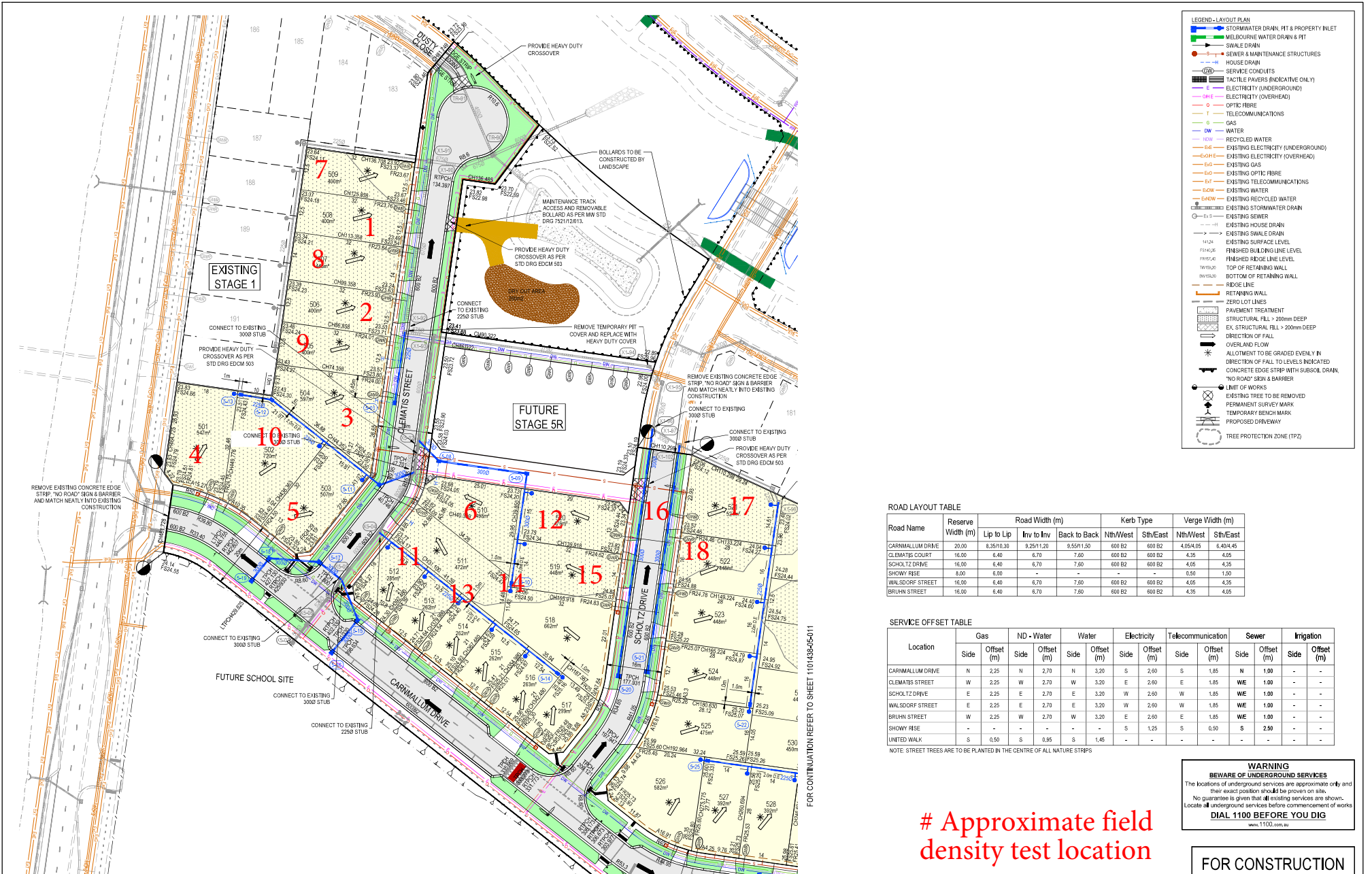
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

A handwritten signature in blue ink, appearing to be 'Nick Brock', is written over a light blue circular stamp.

Nick Brock

# FIGURE 1 (1 of 2)



**LEGEND - LAYOUT PLAN**

- STORMWATER DRAIN, PIT & PROPERTY INLET
- MELBOURNE WATER DRAIN & PIT
- SWALE DRAIN
- SEWER & MAINTENANCE STRUCTURES
- HOUSE DRAIN
- SERVICE CONDUITS
- UTILITY PIPES (INDICATIVE ONLY)
- ELECTRICITY (UNDERGROUND)
- ELECTRICITY (OVERHEAD)
- OPTIC FIBRE
- TELECOMMUNICATIONS
- GAS
- WATER
- RECYCLED WATER
- EXISTING ELECTRICITY (UNDERGROUND)
- EXISTING ELECTRICITY (OVERHEAD)
- EXISTING GAS
- EXISTING OPTIC FIBRE
- EXISTING TELECOMMUNICATIONS
- EXISTING WATER
- EXISTING RECYCLED WATER
- EXISTING STORMWATER DRAIN
- EXISTING SEWER
- EXISTING HOUSE DRAIN
- EXISTING SWALE DRAIN
- EXISTING SURFACE LEVEL
- FINISHED BUILDING LEVEL
- FINISHED RIDGE LINE LEVEL
- TOP OF RETAINING WALL
- BOTTOM OF RETAINING WALL
- ROUSE LINE
- RETAINING WALL
- ZERO LOT LINES
- PAVEMENT TREATMENT
- STRUCTURAL FILL - 200mm DEEP
- EX. STRUCTURAL FILL - 200mm DEEP
- DIRECTION OF FALL
- OVERLAND FLOW
- ALLOTMENT TO BE GRADED EVENLY IN DIRECTION OF FALL TO LEVELS INDICATED
- CONCRETE EDGE STRIP WITH SUBSOIL DRAIN
- "NO ROAD" SIGN & BARRIER
- LIMIT OF WORKS
- EXISTING TREE TO BE REMOVED
- PERMANENT SURVEY MARK
- TEMPORARY BENCH MARK
- PROPOSED DRIVEWAY
- TREE PROTECTION ZONE (TPZ)

ROAD LAYOUT TABLE

Road Name	Reserve Width (m)	Road Width (m)			Kerb Type		Verge Width (m)	
		Lip to Lip	Inv to Inv	Back to Back	Nth/West	Sth/East	Nth/West	Sth/East
CARMALLUM DRIVE	20.00	8.35/8.30	9.25/11.20	9.55/11.50	600 B2	600 B2	4.05/4.05	4.05/4.05
CLEMATIS COURT	16.00	6.40	6.70	7.60	600 B2	600 B2	4.35	4.35
SCHOLTZ DRIVE	16.00	6.40	6.70	7.60	600 B2	600 B2	4.05	4.35
SHOWY RISE	8.00	8.00	-	-	-	-	0.50	1.50
WALDOORF STREET	16.00	6.40	6.70	7.60	600 B2	600 B2	4.05	4.35
BRUHN STREET	16.00	6.40	6.70	7.60	600 B2	600 B2	4.35	4.35

SERVICE OFFSET TABLE

Location	Gas		ND - Water		Water		Electricity		Telecommunication		Sewer		Irrigation	
	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)
CARMALLUM DRIVE	N	2.25	N	2.70	N	3.20	S	2.60	S	1.85	N	1.00	-	-
CLEMATIS STREET	W	2.25	W	2.70	W	3.20	E	2.60	E	1.85	WE	1.00	-	-
SCHOLTZ DRIVE	E	2.25	E	2.70	E	3.20	W	2.60	W	1.85	WE	1.00	-	-
WALDOORF STREET	E	2.25	E	2.70	E	3.20	W	2.60	W	1.85	WE	1.00	-	-
BRUHN STREET	W	2.25	W	2.70	W	3.20	E	2.60	E	1.85	WE	1.00	-	-
SHOWY RISE	-	-	-	-	-	-	S	1.25	S	0.50	S	2.50	-	-
UNITED WALK	S	0.50	S	0.85	S	1.45	-	-	-	-	-	-	-	-

NOTE: STREET TREES ARE TO BE PLANTED IN THE CENTRE OF ALL NATURE STRIPS

**WARNING**  
**BEWARE OF UNDERGROUND SERVICES**  
 The locations of underground services are approximate only and their exact position should be proven on site.  
 No guarantee is given that all existing services are shown.  
 Locate all underground services before commencement of works  
**DIAL 1100 BEFORE YOU DIG**  
 www.1100.com.au

# Approximate field density test location

FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRN	APP	REV	DESCRIPTION	DATE	DRN	APP
A	ISSUED FOR CONSTRUCTION	12.06.22	LS	LM					
P2	ISSUED FOR INFORMATION	01.07.22	LS	LM					
P1	ISSUED FOR INFORMATION	23.04.22	LS	LM					

**SMITHS LANE**  
 SUBURB NORTH

Designed Date: Y.ALBAHMT 23.02.22  
 Drawn: L.SUTHERLAND  
 Approved Date: L.MURRAY 05.07.22  
 P1 Number: PS83386JL

**BW** Beverage Williams

1 Glenferrie Road  
 Malvern VIC 3144  
 ph. 03 9524 8888  
 www.beveridgewilliams.com.au

Project Name: SMITHS LANE STAGE 05 CITY OF CASEY, R5826  
 Drawing Title: LAYOUT PLAN (SHEET 1 OF 2)

Sheet 04 of 26  
 Scale: 1:500 @ A1  
 Project Ref: 1101438 05 010  
 Date: 05/07/22  
 Drawing No: 010  
 Rev: A

S:\Site Data\1101438 110 Smiths Lane - Cpn\DWG\CAD\Eng\Stage 10\DWG\1101438-05-010.dwg

# FIGURE 1 (2 of 2)



# Approximate field density test location

ROAD LAYOUT TABLE

Road Name	Reserve Width (m)	Road Width (m)			Kerb Type		Verge Width (m)	
		Lip to Lip	Inv to Inv	Back to Back	Nth/West	Stth/East	Nth/West	Stth/East
CARMALLUM DRIVE	20.00	6.25/10.20	9.25/11.20	9.55/11.50	600 B2	600 B2	4.05/4.05	6.40/4.45
CLEMATHS COURT	16.00	6.40	6.70	7.80	600 B2	600 B2	4.35	4.05
SCHOLTZ DRIVE	16.00	6.40	6.70	7.80	600 B2	600 B2	4.05	4.35
SHOWRY RESE	8.00	6.00	-	-	-	-	0.50	1.50
WALSDORF STREET	16.00	6.40	6.70	7.80	600 B2	600 B2	4.05	4.35
BRUHN STREET	16.00	6.40	6.70	7.80	600 B2	600 B2	4.35	4.05

SERVICE OFFSET TABLE

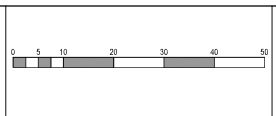
Location	Side	Gas		ND - Water		Water		Electricity		Telecommunication		Sewer		Irrigation	
		Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side
CARMALLUM DRIVE	N	2.25	N	2.70	N	3.20	S	2.60	S	1.85	N	1.00	-	-	-
CLEMATHS STREET	W	2.25	W	2.70	W	3.20	E	2.60	E	1.85	WE	1.00	-	-	-
SCHOLTZ DRIVE	E	2.25	E	2.70	E	3.20	W	2.60	W	1.85	WE	1.00	-	-	-
WALSDORF STREET	E	2.25	E	2.70	E	3.20	W	2.60	W	1.85	WE	1.00	-	-	-
BRUHN STREET	W	2.25	W	2.70	W	3.20	E	2.60	E	1.85	WE	1.00	-	-	-
SHOWRY RESE	-	-	-	-	-	-	S	1.25	S	0.50	S	2.50	-	-	-
UNITED WALK	S	0.50	S	0.85	S	1.45	-	-	-	-	-	-	-	-	-

NOTE: STREET TREES ARE TO BE PLANTED IN THE CENTRE OF ALL NATURE STRIPS

**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The locations of underground services are approximate only and their exact position should be proven on site.  
No guarantee is given that all existing services are shown.  
Locate all underground services before commencement of works  
**DIAL 1100 BEFORE YOU DIG**  
www.1100.com.au

**FOR CONSTRUCTION**

REV	DESCRIPTION	DATE	DRN	APP	REV	DESCRIPTION	DATE	DRN	APP
A	ISSUED FOR CONSTRUCTION	12.06.22	LS	LM					
P2	ISSUED FOR INFORMATION	07.07.22	LS	LM					
P1	ISSUED FOR INFORMATION	23.04.22	LS	LM					



Designed By: Y. AL-SANIT 23.04.22  
 Drawn: L. SUTHERLAND  
 Approved Date: 06.07.22  
 P&I Number: PS83306JL

**BW** Beveridge Williams  
 1 Glenferrie Road  
 Malvern VIC 3144  
 ph. 03 9524 8888  
 www.beveridgewilliams.com.au

Project Name: SMITHS LANE STAGE 05 CITY OF CASEY, R5826  
 Drawing Title: LAYOUT PLAN (SHEET 2 OF 2)

Sheet 05 of 26  
 Scale: 1:500 @ A1  
 Project Ref: 1101438  
 Stage No: 05  
 Drawing No: 011  
 Rev: A

K:\Site Data\1101438\_110 Smiths Lane\_City of Casey\_Engineering\1101438-05-01-A1.dwg



# COMPACTION ASSESSMENT

Job No 22671  
 Report No 22671/R001  
 Date Issued 05/05/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	SMITHS LANE - STAGE 5	Date tested	17/04/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:00
---------	------------	-----------------	--------	-------------

### 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/m <sup>3</sup>	2.00	2.02	2.01	-	-
Field moisture content	%	25.5	26.4	23.8	-	-

### 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/m <sup>3</sup>	2.03	2.06	2.04	-	-
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	24.5	24.0	22.0	-	-

Moisture Variation From Optimum Moisture Content	1.0% wet	2.5% wet	2.0% wet	-	-	-
--------------------------------------------------	----------	----------	----------	---	---	---

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 <sub>HD</sub> )	%	98.5	98.0	99.0	-	-
-----------------------------------	---	------	------	------	---	---

### Material description

No 1 - 3 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

Job No 22671  
 Report No 22671/R002  
 Date Issued 03/05/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	SMITHS LANE - STAGE 5	Date tested	18/04/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	09:30
---------	------------	-----------------	--------	-------	-------

### 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
Field wet density	t/m <sup>3</sup>	2.01	2.02	2.03	2.02	2.01
Field moisture content	%	19.4	17.0	16.7	17.9	21.9

### 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
Percent of oversize material	wet	0	0	0	0	0
Peak Converted Wet Density	t/m <sup>3</sup>	2.04	2.06	2.04	2.06	2.03
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	21.5	19.5	19.0	20.0	21.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.0% dry	2.0% dry	2.0% dry	0.5% wet
--------------------------------------------------	----------	----------	----------	----------	----------	----------

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 <sub>HD</sub> )	%	98.5	98.0	99.0	98.0	98.0	99.0
-----------------------------------	---	------	------	------	------	------	------

### 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

Job No 22671  
 Report No 22671/R003  
 Date Issued 05/05/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	SMITHS LANE - STAGE 5	Date tested	19/04/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	11:30
---------	------------	-----------------	--------	-------	-------

### 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
Field wet density	t/m <sup>3</sup>	2.02	1.99	2.01	1.99	2.01
Field moisture content	%	19.1	17.8	23.7	22.8	17.5

### 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
Percent of oversize material	wet	0	0	0	0	0
Peak Converted Wet Density	t/m <sup>3</sup>	2.02	2.04	2.03	2.03	2.04
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	19.0	20.5	22.5	23.0	19.5

Moisture Variation From Optimum Moisture Content	0.0%	2.5% dry	1.0% wet	0.0%	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 <sub>HD</sub> )	%	100.0	97.5	99.0	98.0	98.5	98.5
-----------------------------------	---	-------	------	------	------	------	------

### 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

Job No 22671  
 Report No 22671/R004  
 Date Issued 05/05/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	SMITHS LANE - STAGE 5	Date tested	20/04/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:30
---------	------------	-----------------	--------	-------------

### 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
Field wet density	t/m <sup>3</sup>	2.00	2.01	2.00	2.00	2.00
Field moisture content	%	19.9	20.9	23.2	16.8	22.5

### 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
Percent of oversize material	wet	0	0	0	0	0
Peak Converted Wet Density	t/m <sup>3</sup>	2.00	2.06	2.05	2.05	2.04
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	22.5	23.5	22.0	19.0	22.0

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	1.0% wet	2.0% dry	0.5% wet	0.5% 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 <sub>HD</sub> )	%	100.0	97.5	97.5	98.0	98.0	100.0
-----------------------------------	---	-------	------	------	------	------	-------

### 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

Job No 22671  
 Report No 22671/R005  
 Date Issued 03/05/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	SMITHS LANE - STAGE 5	Date tested	21/04/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:00
---------	------------	-----------------	--------	-------------

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	
Field wet density	t/m <sup>3</sup>	1.99	1.98	1.99	2.01	2.00	1.99
Field moisture content	%	21.5	18.0	21.6	21.3	18.2	19.6

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	
Percent of oversize material	wet	0	0	0	0	0	
Peak Converted Wet Density	t/m <sup>3</sup>	2.03	2.06	2.03	2.00	2.01	2.02
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	-
Optimum Moisture Content	%	23.5	20.5	23.5	21.5	18.5	19.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.0% dry	0.0%	0.0%	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 <sub>HD</sub> )	%	98.5	96.5	98.5	100.5	99.5	99.0
-----------------------------------	---	------	------	------	-------	------	------

Material description

No 22 - 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

Job No 22671  
 Report No 22671/R006  
 Date Issued 03/05/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	SMITHS LANE - STAGE 5	Date tested	27/04/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:00
---------	------------	-----------------	--------	-------------

### 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
Field wet density	t/m <sup>3</sup>	2.00	2.01	2.01	1.99	2.01
Field moisture content	%	23.1	21.4	22.5	23.0	23.8

### 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
Percent of oversize material	wet	0	0	0	0	0
Peak Converted Wet Density	t/m <sup>3</sup>	1.98	2.03	2.02	2.02	2.03
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	23.5	23.5	23.0	23.0	24.0

Moisture Variation From Optimum Moisture Content	0.5% dry	2.0% dry	0.5% dry	0.0%	0.0%	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 <sub>HD</sub> )	%	100.5	99.0	99.5	98.5	100.0	98.5
-----------------------------------	---	-------	------	------	------	-------	------

### 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

Job No 22671  
 Report No 22671/R007  
 Date Issued 05/05/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	SMITHS LANE - STAGE 5	Date tested	28/04/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 14:30
---------	------------	-----------------	--------	-------------

### 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	
Field wet density	t/m <sup>3</sup>	2.00	1.99	2.00	2.01	1.99	2.00
Field moisture content	%	22.1	17.9	16.2	19.4	22.5	18.9

### 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	
Percent of oversize material	wet	0	0	0	0	0	
Peak Converted Wet Density	t/m <sup>3</sup>	2.02	2.03	2.03	2.05	2.03	2.00
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	-
Optimum Moisture Content	%	22.0	20.5	18.5	22.0	22.0	21.0

Moisture Variation From Optimum Moisture Content	0.0%	2.5% dry	2.0% dry	2.5% dry	0.5% wet	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 <sub>HD</sub> )	%	99.0	98.5	98.5	98.0	98.0	100.0
-----------------------------------	---	------	------	------	------	------	-------

### 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