



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

25th March 2020

Our Reference: 19233:NB705

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
FLORIAN – STAGE 5 (BONSHAW)**

Please find attached our Report No's 19233/R001 and 19233/R002 which relates to the field density testing that was conducted within the filled allotments of the above subdivision. The level 1 inspections and associated field density testing was performed in November 2019.

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 read 'Nick Brock', is written over a light blue circular stamp.

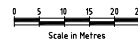
Nick Brock

FIGURE 1



NOTE:
FALL ON LOTS IS MEASURED FROM HIGHEST TOP/TOE OF BATTER OR CORNER TO LOWEST TOP/TOE OF BATTER OR CORNER

Approximate field density test location



FOR APPROVAL

ISSUE	DESCRIPTION	DATE	LEGEND		DESIGNED	SCALE	PROJECT	CIVIL REF. No. 802RD-05-04	SHEET 4	REV A
A	ISSUED FOR APPROVAL	3/10/18	 LOT CUT (CUT GREATER THAN 200mm DEEP)	FS: 140.00 FINISHED SURFACE LEVEL	A MURPHY	1:500				
			 LOT FILL (FILL GREATER THAN 200mm DEEP)	ES: 140.00 EXISTING SURFACE LEVEL	CHECKED M PARKER	SHEET SIZE A1	CLIENT: BONSHAW PROJECTS PTY LTD			
			- - - - - BATTERS	SLOPE & FALL ARROW	AUTHORISED C COUGHLAN	DATE: 3/10/18				
			- - - - - PROPOSED EASEMENTS		 Quality Certified Company ISO9001:2008 REGISTRATION No. COU4891-0009					



COMPACTION ASSESSMENT

Job No 19233
 Report No 19233/R001
 Date Issued 26/11/2019

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	FLORIAN ESTATE - STAGE 5	Date tested	14/11/19
Location	BONSHAW	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 09:30
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	1	2	3	4	5	-
Location	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 <i>mm</i>	175	175	175	175	175	-
Field wet density <i>t/m³</i>	1.91	1.89	1.92	1.93	2.07	-
Field moisture content <i>%</i>	15.8	16.1	17.6	18.3	15.9	-

Test procedure AS 1289.5.7.1

Test No	1	2	3	4	5	-
Compactive effort	Standard					
Oversize rock retained on sieve <i>mm</i>	19.0	19.0	19.0	19.0	19.0	-
Percent of oversize material <i>wet</i>	0	0	0	0	0	-
Peak Converted Wet Density <i>t/m³</i>	1.96	1.93	1.95	1.96	2.10	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content <i>%</i>	18.0	18.5	20.0	20.5	18.0	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.0% dry	2.5% dry	2.5% dry	2.0% dry	-
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Density Ratio (R_{HD})	%	97.5	98.0	98.0	99.0	98.5	-
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Material description

No 1 - 5 Clay Fill

AVRLOT HILF V1.10 MAR 13



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards. Accredited for compliance with ISO/IEC 17025 - Testing

Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 19233
Report No 19233/R002
Date Issued 06/03/2020

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	FLORIAN ESTATE - STAGE 5	Date tested	25/11/19
Location	BONSHAW	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	09:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	6	7	8	9	-	-
Location	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	-
Field wet density	t/m ³	2.12	2.12	2.10	2.08	-
Field moisture content	%	19.7	19.4	18.6	19.2	-

Test procedure AS 1289.5.7.1

Test No	6	7	8	9	-	-
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	-
Percent of oversize material	wet	0	0	0	0	-
Peak Converted Wet Density	t/m ³	2.20	2.20	2.20	2.10	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	20.0	19.5	18.5	20.0	-

Moisture Variation From Optimum Moisture Content	0.0%	0.0%	0.0%	1.0% dry	-	-
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Density Ratio (R _{HD})	%	96.5	96.0	95.5	99.0	-
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Material description

No 6 - 9 Clay Fill

AVRLOT HILF V1.10 MAR 13



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