



CIVIL GEOTECHNICAL SERVICES
ABN 26 474 013 724
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4th September 2019

Our Reference: 19156:NB563

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
DELARAY – STAGE 12 (CLYDE NORTH)

Please find attached our Report No's 19156/R001 and 19156/R002 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 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 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).

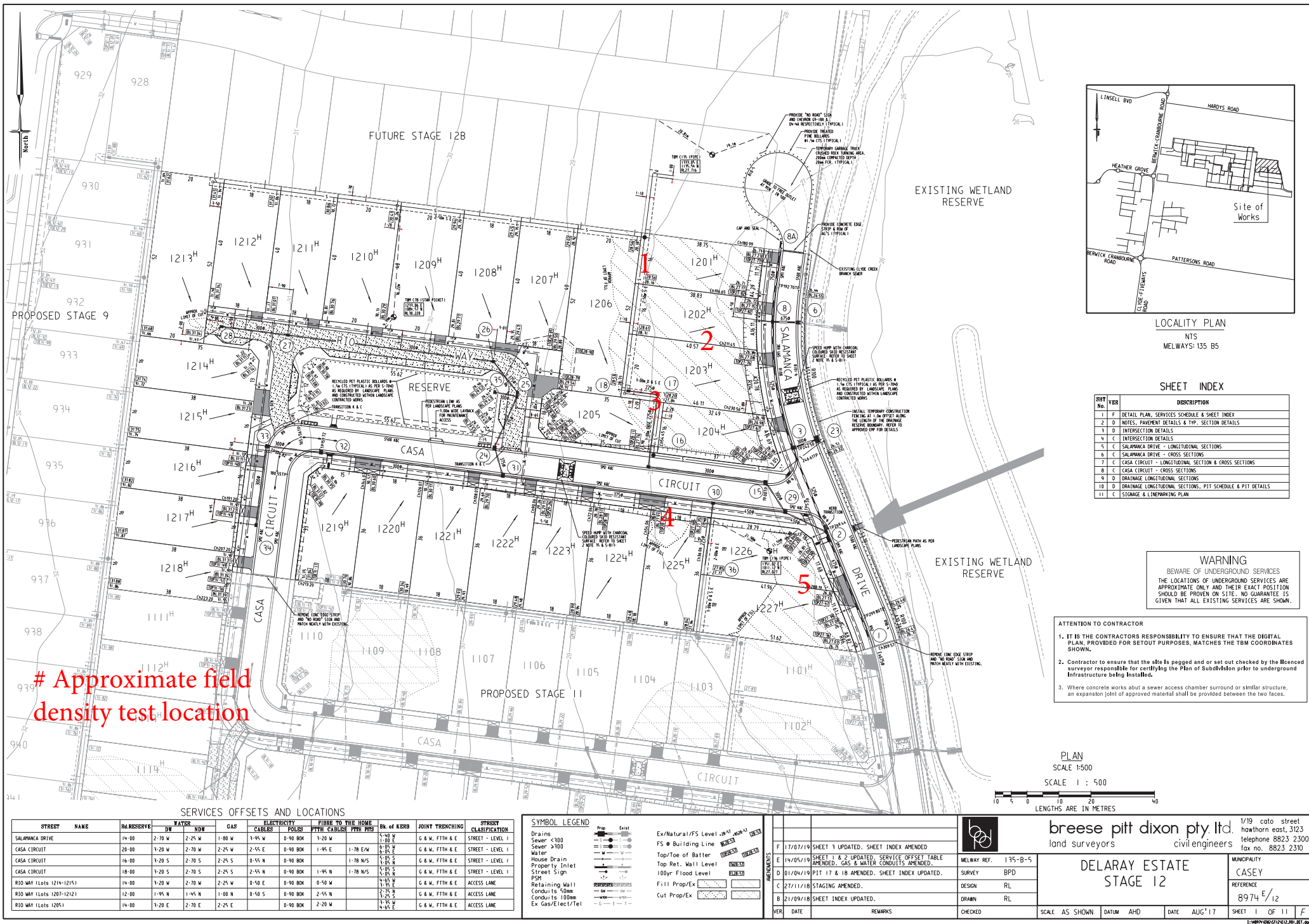
We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

Nick Brock

FIGURE 1



Approximate field density test location



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 19156
Report No 19156/R001
Date Issued 12/04/2019

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	KS
Project	DELARAY - STAGE 12	Date tested	03/04/19
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:37
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	1	2	-	-	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1				
Approximate depth below FSL						
Measurement depth mm	175	175	-	-	-	-
Field wet density t/m ³	1.87	1.84	-	-	-	-
Field moisture content %	27.4	27.7	-	-	-	-

Test procedure AS 1289.5.7.1

Test No	1	2	-	-	-	-
Compactive effort	Standard					
Oversize rock retained on sieve mm	19.0	19.0	-	-	-	-
Percent of oversize material wet	0	0	-	-	-	-
Peak Converted Wet Density t/m ³	1.90	1.86	-	-	-	-
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	30.0	27.5	-	-	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	0.0%	-	-	-	-
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Density Ratio (R_{HD})	%	98.0	99.0	-	-	-	-
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Material description

No 1 - 2 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 to ISO/IEC 17025. Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 19156
Report No 19156/R002
Date Issued 26/04/2019

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	DELARAY - STAGE 12	Date tested	08/04/19
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 14:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	3	4	5	-	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL						
Measurement depth mm	175	175	175	-	-	-
Field wet density t/m ³	1.88	1.86	1.92	-	-	-
Field moisture content %	25.3	26.6	23.0	-	-	-

Test procedure AS 1289.5.7.1

Test No	3	4	5	-	-	-
Compactive effort	Standard					
Oversize rock retained on sieve mm	19.0	19.0	19.0	-	-	-
Percent of oversize material wet	0	0	0	-	-	-
Peak Converted Wet Density t/m ³	1.93	1.92	1.93	-	-	-
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	25.5	25.0	23.0	-	-	-

Moisture Variation From Optimum Moisture Content	0.0%	1.5% wet	0.0%	-	-	-
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Density Ratio (R_{HD})	%	97.5	96.5	99.5	-	-	-
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Material description

No 3 - 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 to ISO/IEC 17025. Accreditation No 9909

Approved Signatory : Justin Fry