

## CIVIL GEOTECHNICAL SERVICES ABN 26 474 013 724

### PO Box 678 Croydon Vic 3136 Telephone: 9723 0744 Facsimile: 9723 0799

18th January 2021

Our Reference: 20708:NB855

Winslow Constructors Pty Ltd 50 Barry Road CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING RIVERDALE – STAGE 19B (TARNEIT)

Please find attached our Report No's 20708/R001 and 20708/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 January 2021.

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).

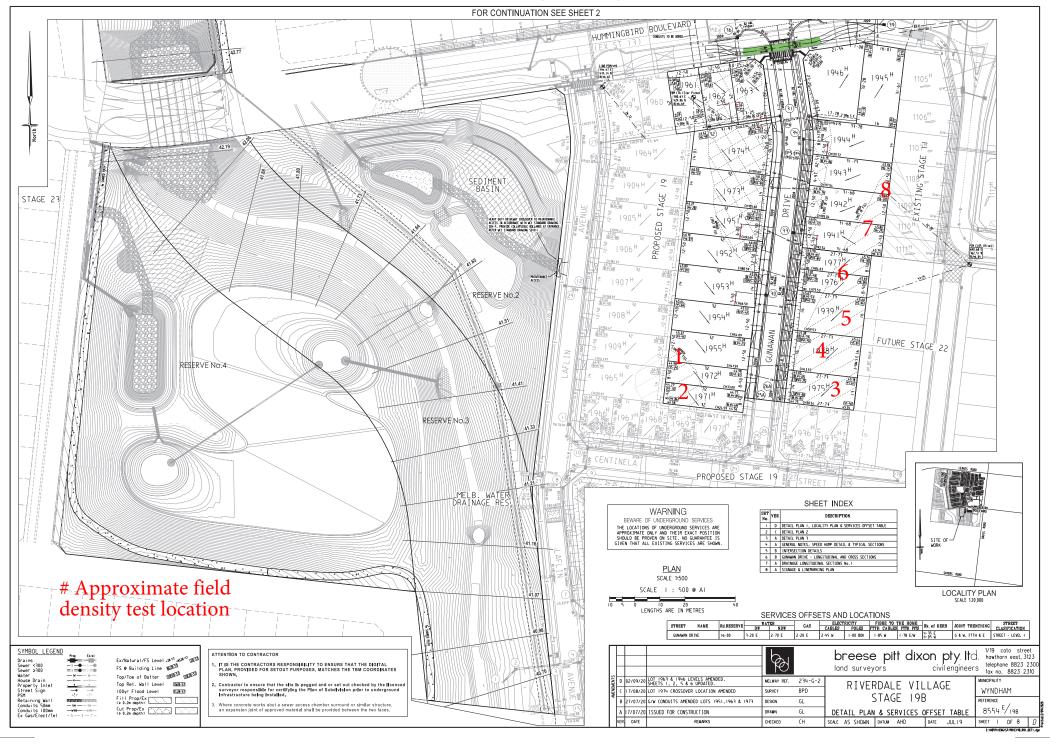
We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

Please contact the undersigned if you require any additional information.

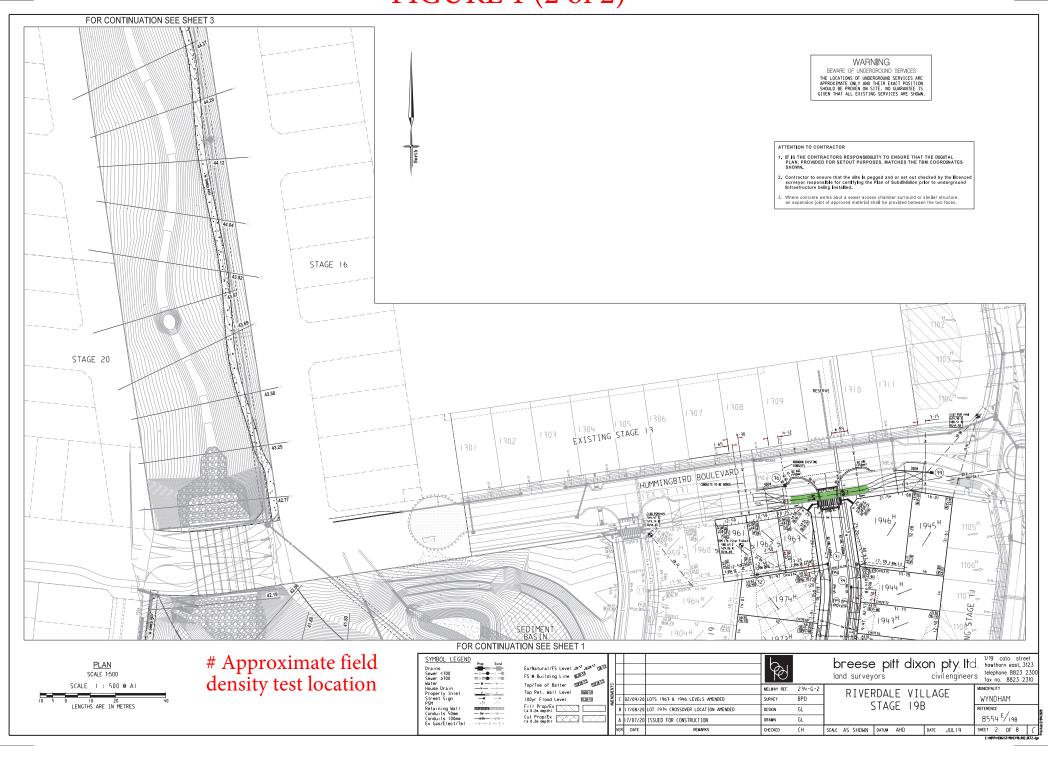
Civil Geotechnical Services

Nick Brock

## FIGURE 1 (1 of 2)



# FIGURE 1 (2 of 2)





#### **COMPACTION ASSESSMENT**

 CIVIL GEOTECHNICAL SERVICES
 Job No
 20708

 6 - 8 Rose Avenue, Croydon 3136
 Report No
 20708/R001

 Date Issued
 18/01/2021

ClientWINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)Tested byJBProjectRIVERDALE - STAGE 19BDate tested13/01/21LocationTARNEITChecked byJHF

Feature EARTHWORKS Layer thickness 200 mm Time: 08:00

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		1	2	3	4	5	6
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		TO	TO	TO	ТО	TO	TO
		FIGURE 1					
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m³	1.91	1.86	1.88	1.89	1.89	1.81
Field moisture content	%	18.9	18.0	26.1	19.4	13.8	15.9

Test procedure AS 1289.5.7.1

Test No		1	2	3	4	5	6
Compactive effort				Star	dard		
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	1.97	1.97	1.96	1.90
Adjusted Peak Converted Wet Density	t/m³	-	-	-	-	-	-
Optimum Moisture Content	%	21.5	20.0	28.0	22.0	16.0	18.5

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

Density Ratio (R <sub>HD</sub> )	%	97.0	97.5	95.5	96.0	96.5	95.0

#### Material description

No 1 - 6 Clay Fill

NATA

AVRLOT HILF V1.10 MAR 13

Approved Signatory: Justin Fry



### **COMPACTION ASSESSMENT**

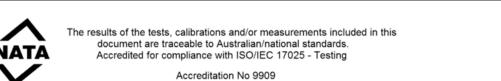
Job No 20708 **CIVIL GEOTECHNICAL SERVICES** Report No 20708/R002 Date Issued 18/01/2021 6 - 8 Rose Avenue, Croydon 3136 WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) JB Client Tested by Project **RIVERDALE - STAGE 19B** Date tested 13/01/21 Location **TARNEIT** Checked by JHF

Feature EARTHWORKS Layer thickness 200 mm Time: 09:00

Test No		7	8	-	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1				
Approximate depth below FSL							
Measurement depth	mm	175	175	-	-	-	-
Field wet density	t/m³	1.87	1.87	-	-	-	-
Field moisture content	%	19.9	17.4	-	-	-	-
	,,		<u>,                                    </u>		!	!	
Test procedure AS 1289.5.7.1 Test No	,,	7	8	- Star	- ndard	-	-
Test procedure AS 1289.5.7.1 Test No Compactive effort		-	8		- ndard -	-	-   -
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve	mm	19.0	8	Star	ndard		
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material		-	8	Star	ndard -		
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	mm wet	19.0	8 19.0 0	Star - -	ndard - -		
Test procedure AS 1289.5.7.1  Test No  Compactive effort  Oversize rock retained on sieve  Percent of oversize material  Peak Converted Wet Density  Adjusted Peak Converted Wet Density  Optimum Moisture Content	mm wet t/m³	19.0	8 19.0 0	Star - -	ndard - - -		
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	mm wet t/m³	19.0 0 1.93	8 19.0 0 1.91	Star - - -	ndard	- - -	

Material description

No 7 - 8 Clay Fill



AVRLOT HILF V1.10 MAR 13

Approved Signatory : Justin Fry