



CIVIL GEOTECHNICAL SERVICES
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25th August 2022

Our Reference: 21454:NB1332

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
OFFICER CENTRAL – DAM BACKFILL (OFFICER)**

Please find attached our Report No's 21454/R001 to 21454/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 November 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).

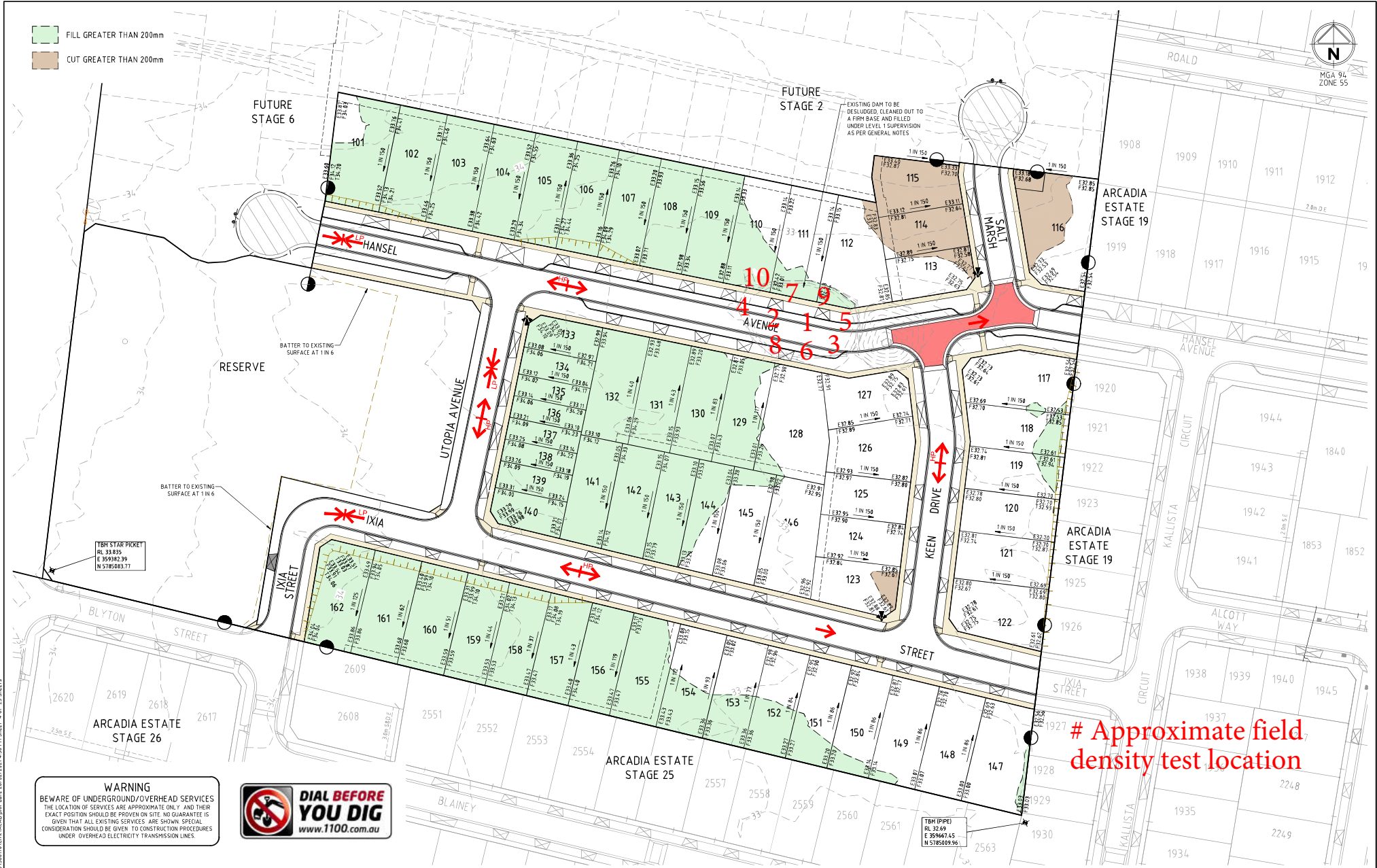
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

A handwritten signature in blue ink, appearing to be 'Nick Brock', written in a cursive style.

Nick Brock

FIGURE 1



File Name: 308176CR202.dwg Plot No: 02501 Date Issued: 26/02/2021 4:58 PM Sheet: 4 of 25 Sheets
 File Location: \\spire\share\cardina\308176CR202.dwg Date Plot: 26/02/2021 4:58 PM Sheet: 4 of 25 Sheets
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Rev	Amendments	Approved	Date
B	ISSUED FOR TENDER	S.M	26/02/21
A	PRELIMINARY ISSUE	S.M	05/02/21

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Designed
M. WRIGHT

Checked

Authorised
S. MURPHY

Date

TENDER 308176CR202

308176CR202



COMPACTION ASSESSMENT

Job No 21454
 Report No 21454/R001
 Date Issued 13/01/2022

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	OFFICER CENTRAL - DAM BACKFILL	Date tested	25/11/21
Location	OFFICER	Checked by	JHF

Feature	DAM BACKFILL	Layer thickness	200 mm	Time: 10:45
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		1	2	3	4	5	6
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	m	2.0	1.8	1.6	1.4	1.2	1.0
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m ³	2.01	1.99	1.94	1.97	1.92	1.95
Field moisture content	%	15.8	15.5	15.6	14.7	16.1	14.4

Test procedure AS 1289.5.7.1

Test No		1	2	3	4	5	6
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/m ³	2.04	1.97	1.96	2.01	1.94	1.99
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	15.0	15.0	15.0	13.5	16.0	14.5

Moisture Variation From Optimum Moisture Content	1.0% wet	0.5% wet	0.5% wet	1.0% wet	0.0%	0.0%
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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	101.0	99.0	98.0	99.0	98.0
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Material description

No 1 - 6 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 21454
 Report No 21454/R002
 Date Issued 15/01/2022

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	OFFICER CENTRAL - DAM BACKFILL	Date tested	26/11/21
Location	OFFICER	Checked by	JHF

Feature	DAM BACKFILL	Layer thickness	200 mm	Time:	12:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		7	8	9	10	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1		
Approximate depth below FSL	m	0.8	0.6	0.4	fsl		
Measurement depth	mm	175	175	175	175	-	-
Field wet density	t/m ³	2.03	2.01	2.08	2.00	-	-
Field moisture content	%	14.2	13.9	14.0	14.6	-	-

Test procedure AS 1289.5.7.1

Test No		7	8	9	10	-	-
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	2.04	2.02	2.06	2.02	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	14.5	13.5	13.0	15.0	-	-

Moisture Variation From Optimum Moisture Content		0.5% dry	0.5% wet	1.0% wet	0.5% dry	-	-
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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})	%	99.5	99.5	101.0	99.0	-	-
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Material description

No 7 - 10 Clay Fill

AVRLOT HILF V1.10 MAR 13



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 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry