



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

2nd October 2023

Our Reference: 23217:NB1689

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
CREEKSTONE - STAGE 25 (TARNEIT)**

Please find attached our Report No's 23217/R001 to 23217/R003 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 was performed in March 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

Nick Brock

FIGURE 1

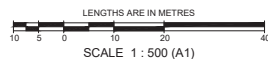
ATTENTION TO CONTRACTOR

1. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN, PROVIDED FOR SETOUT PURPOSES, MATCHES THE TBM COORDINATES SHOWN.
2. CONTRACTOR TO ENSURE THAT THE SITE IS PEGGED AND SET OUT CHECKED BY THE LICENSED SURVEYOR RESPONSIBLE FOR CERTIFYING THE PLAN OF SUBDIVISION PRIOR TO UNDERGROUND INFRASTRUCTURE BEING INSTALLED.
3. WHERE CONCRETE WORKS ABOUT A SEWER ACCESS CHAMBER SURROUND OR SIMILAR STRUCTURE, AN EXPANSION JOINT OF APPROVED MATERIAL SHALL BE PROVIDED BETWEEN THE TWO FACES.

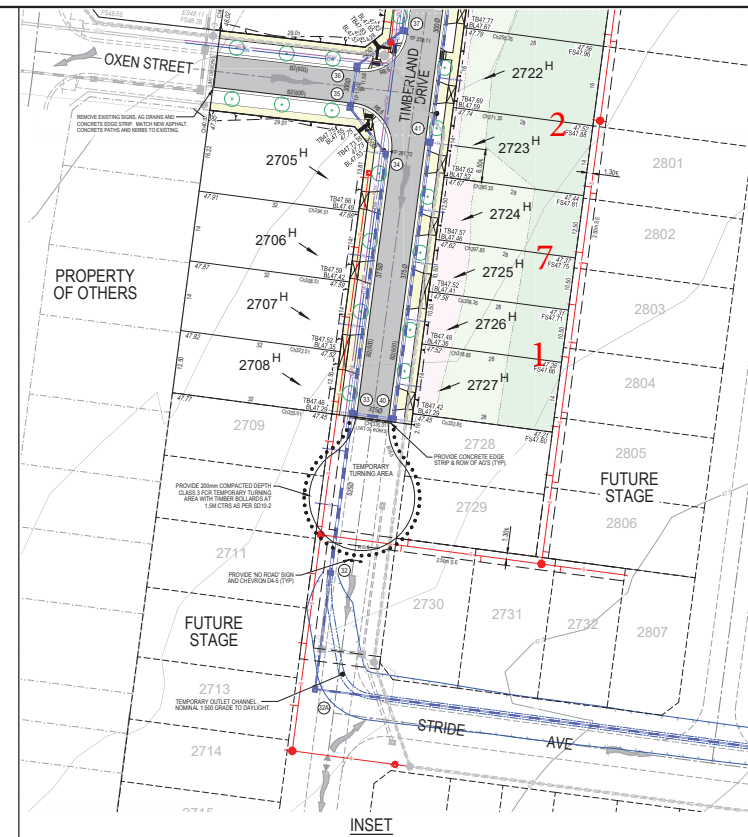
WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE
APPROXIMATE ONLY AND THEIR EXACT POSITION
SHOULD BE PROVEN ON SITE. NO GUARANTEE IS
GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.



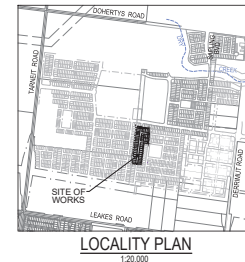
Approximate field
density test location



SHT. No.	VER	DRAWING INDEX
		DESCRIPTION
1	B	LAYOUT PLAN AND DETAILS
2	A	NOTES AND TYPICAL CROSS SECTIONS
3	A	INTERSECTION DETAILS
4	A	TIMBERLAND DRIVE - LONGITUDINAL SECTION AND CROSS SECTIONS
5	A	TIMBERLAND DRIVE - CROSS SECTIONS
6	A	STADIUM STREET - LONGITUDINAL SECTION AND CROSS SECTIONS
7	A	STOCK ROAD - LONGITUDINAL SECTION AND CROSS SECTIONS
8	A	OAKEN STREET - LONGITUDINAL SECTION AND CROSS SECTIONS
9	A	DRAINAGE LONGITUDINAL SECTIONS - SHEET 1
10	A	DRAINAGE LONGITUDINAL SECTIONS - SHEET 2
11	B	DRAINAGE LONGITUDINAL SECTIONS - SHEET 3 & P&T SCHEDULE
12	A	SIGNAGE & LINE MARKING PLAN
13	A	TEMPORARY BASIN LAYOUT PLAN AND DETAILS
14	A	TEMPORARY BASIN SECTIONS




SERVICES OFFSETS AND LOCATIONS										
LOCATION	GAS	WATER		COMMUNICATIONS		ELECTRICITY		BOK	Road Width	Joint Trenching
		NDW	DW	Cables	Pts	Cables	Poles			
TIMBERLAND DRIVE (Lot 2522)	2.25 W	2.70 N	3.20 W	1.85 E	1.85 W	2.45 E	1.00 BOK	4,309 / 4,056	16.00	W & E ASPHT
TIMBERLAND DRIVE (Lots 2250-2727)	2.25 W	2.70 N	3.20 W	1.85 E	1.85 W	2.35 E	1.00 BOK	4,309 / 4,056	16.00	W & E ASPHT
STADIUM STREET	2.25 N	2.70 N	3.20 N	1.85 E	1.85 N	2.45 E	1.00 BOK	4,309 / 4,056	16.00	W & E ASPHT
STOCK ROAD	2.25 N	2.70 N	3.20 N	1.85 E	1.85 N	2.45 E	1.00 BOK	4,309 / 4,056	16.00	W & E ASPHT
OAKEN STREET	2.25 N	2.70 N	3.20 N	1.85 E	-	2.45 E	1.00 BOK	4,309 / 4,056	16.00	W & E ASPHT



SYMBOL LEGEND

Drains		Pre Stage		Ex/Natural/PS Level	
Sever < 3000		3000		FS @ Building Line	
Sever < 3000		3000		Top/Top of Rafter	
Water (DW)		Water (DW)		Top/Bottom Row Level	
Water (DW)		Water (DW)		100yr Flood Level	
House Drain		House Drain		Fill Proposed (<0.3m@3.0%)	
Property line		Property line		Cut Proposed	
Street Right of Way		Street Right of Way		Asphalt surface	
PSM		PSM		Concrete Surface Prop (Pavement/Gravel/Grass)	
Rock Ret Wall		Rock Ret Wall			
Conduits 50mm		Conduits 50mm			
Conduits 100mm		Conduits 100mm			
Street Tree without/with Passive Irrigation (Refer Detail)		Street Tree without/with Passive Irrigation (Refer Detail)			
Ex Drain		Ex Drain		Tree To Be Removed	
Ex Water (DW)/DW		Ex Water (DW)/DW		Tree To Be Retained with Tree Protection (TPZ)	
Ex Sewer/Gas		Ex Sewer/Gas			
Ex Electric/Telecom		Ex Electric/Telecom			

Adam Suttie
PE0006231
VPER Act 2019

				 breese pitt dixon Pty. Ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310							
AMENDMENTS				MELWAY REF. 359-E12	CREEKSTONE ESTATE STAGE 25 LAYOUT PLAN AND DETAILS		MUNICIPALITY						
				SURVEY			WYNDHAM						
				BPD									
	B	14/04/23	DRAWING SCHEDULE UPDATED	DESIGN	DG		REFERENCE						
	A	10/01/23	ISSUED FOR CONSTRUCTION	DRAWN	DG		8584 E/25						
VER	DATE	REMARKS	CHECKED	C HAGEN	SCALE	As Shown	DATUM	AHD	DATE	Dec'22	SHEET	1 OF 14	B



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 23217
Report No 23217/R001
Date Issued 16/03/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	CREEKSTONE - STAGE 25	Date tested	09/03/23
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:30
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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						
Measurement depth mm	175	175	175	175	175	175
Field wet density t/m ³	1.87	1.89	1.88	1.92	1.88	1.84
Field moisture content %	20.4	20.9	21.8	21.9	22.7	17.2

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	1.90	1.91	1.92	1.99	1.97	1.91
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	21.5	23.5	24.5	24.0	24.5	20.0

Moisture Variation From Optimum Moisture Content	1.0% dry	2.5% dry	2.5% dry	2.0% dry	2.0% dry	2.5% 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})	%	98.5	99.0	98.5	96.5	95.5	96.5
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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

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 23217
Report No 23217/R002
Date Issued 24/03/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	CREEKSTONE - STAGE 25	Date tested	16/03/23
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:30
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	7	8	9	10	11	12
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	175
Field wet density t/m ³	1.92	1.94	1.93	1.91	1.91	1.91
Field moisture content %	22.2	22.0	29.1	27.0	24.8	27.9

Test procedure AS 1289.5.7.1

Test No	7	8	9	10	11	12
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	1.95	1.94	1.96	1.97	1.95	1.97
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	24.5	24.5	31.5	29.0	27.0	30.0

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.5% dry	2.0% dry	2.0% dry	2.0% 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})	%	98.5	100.0	98.5	97.0	98.0	97.0
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Material description

No 7 - 12 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

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 23217
Report No 23217/R003
Date Issued 24/03/23

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	CREEKSTONE - STAGE 25	Date tested	17/03/23
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	13	14	15	-	-	-
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	1.91	1.93	1.93	-	-	-
Field moisture content %	26.0	27.5	25.2	-	-	-

Test procedure AS 1289.5.7.1

Test No	13	14	15	-	-	-
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	1.92	1.98	1.98	-	-	-
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	28.5	30.0	27.5	-	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	2.0% 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	97.5	97.5	-	-	-
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Material description

No 13 - 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