



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

16<sup>th</sup> December 2021

Our Reference: 21726:NB1120

Winslow Constructors Pty Ltd  
50 Barry Road  
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING  
CREEKSTONE – STAGE 22 (TARNEIT)**

Please find attached our Report No's 21726/R001 to 21726/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 testing was performed in December 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).

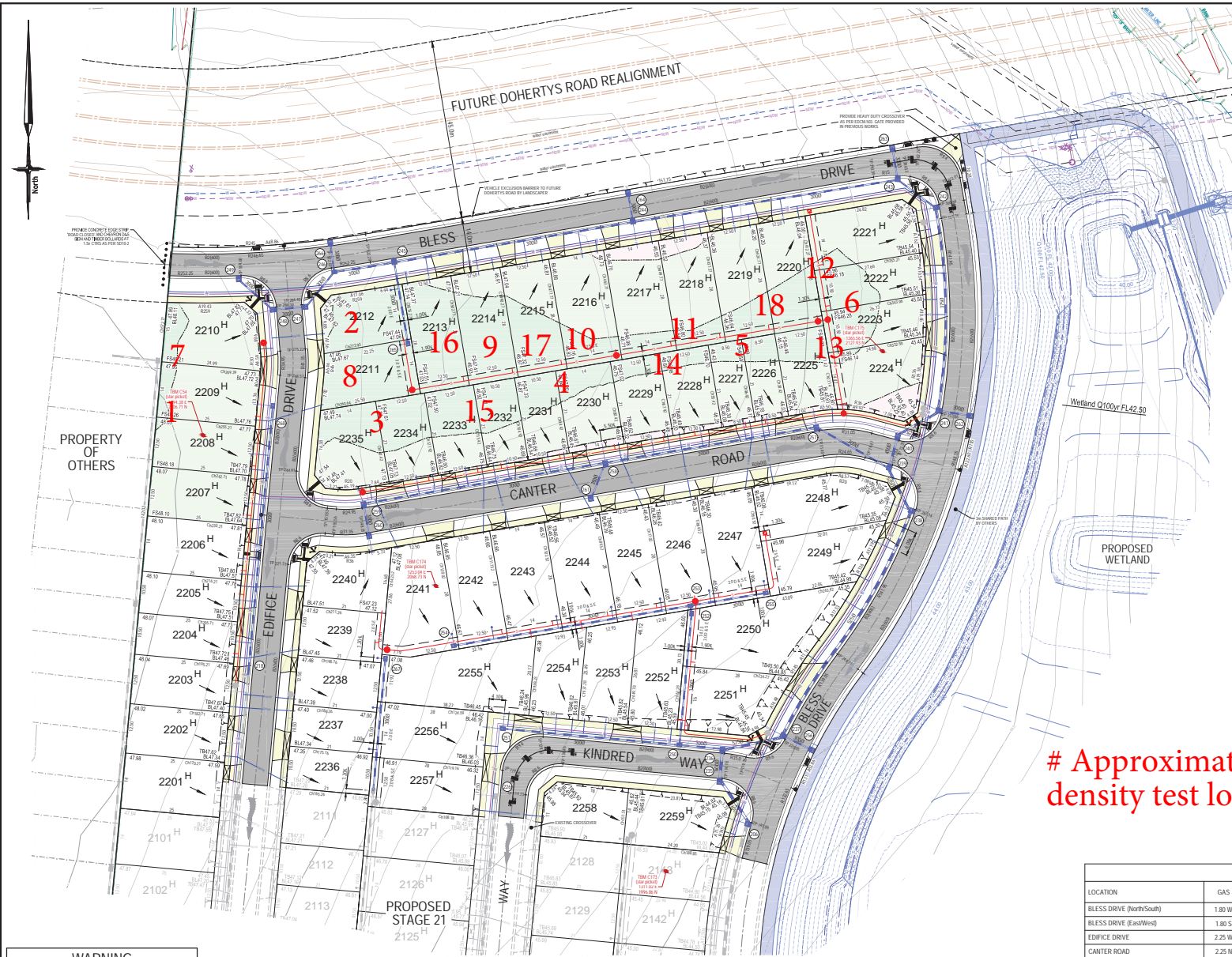
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

A handwritten signature in blue ink, appearing to read 'Nick Brock', is written over a light blue circular stamp.

Nick Brock

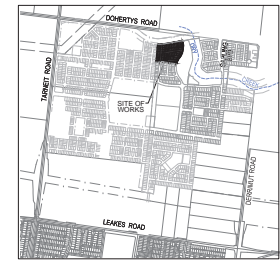
# FIGURE 1



**SYMBOL LEGEND**

Planning and Environment Act 1987  
Wyndham Planning Scheme  
Approved Plan As Required under Section 57  
Permit No. V/CP49015  
Date: 17/09/2021

- Drains
- Sewer > 300D
- Water (DW)
- Water (NDW)
- House Drain
- Property Road
- Street Sign
- PSM
- Rock Ret Wall
- Sleeper Ret Wall
- Conduits 500mm
- Conduits 100mm
- Street Tree without Path
- Propose Irrigation (Refer Detail)
- Ex Drains
- Ex Water DW/NDW
- Ex Storm/Gas
- Ex Electricity
- 1:5 or Building Line
- 1:1 or 1:2 or 1:3 or 1:4 or 1:5 or 1:6 or 1:7 or 1:8 or 1:9 or 1:10 or 1:11 or 1:12 or 1:13 or 1:14 or 1:15 or 1:16 or 1:17 or 1:18 or 1:19 or 1:20 or 1:21 or 1:22 or 1:23 or 1:24 or 1:25 or 1:26 or 1:27 or 1:28 or 1:29 or 1:30 or 1:31 or 1:32 or 1:33 or 1:34 or 1:35 or 1:36 or 1:37 or 1:38 or 1:39 or 1:40 or 1:41 or 1:42 or 1:43 or 1:44 or 1:45 or 1:46 or 1:47 or 1:48 or 1:49 or 1:50 or 1:51 or 1:52 or 1:53 or 1:54 or 1:55 or 1:56 or 1:57 or 1:58 or 1:59 or 1:60 or 1:61 or 1:62 or 1:63 or 1:64 or 1:65 or 1:66 or 1:67 or 1:68 or 1:69 or 1:70 or 1:71 or 1:72 or 1:73 or 1:74 or 1:75 or 1:76 or 1:77 or 1:78 or 1:79 or 1:80 or 1:81 or 1:82 or 1:83 or 1:84 or 1:85 or 1:86 or 1:87 or 1:88 or 1:89 or 1:90 or 1:91 or 1:92 or 1:93 or 1:94 or 1:95 or 1:96 or 1:97 or 1:98 or 1:99 or 1:100
- Cut Proposed
- Asphalt Surface Prop
- Concrete Surface Prop
- Propose Wetland
- Tree To Be Removed
- Tree To Be Retained with Tree Protection Zone (TPZ)



LOCALITY PLAN  
1:20,000

SHT. No.		VER		DRAWING INDEX
				DESCRIPTION
1	A			LAYOUT PLAN AND DETAILS
2	A			NOTES AND TYPICAL CROSS SECTIONS
3	A			INTERSECTION DETAILS
4	A			INTERSECTION DETAILS
5	A			BLESS DRIVE - LONGITUDINAL SECTION AND CROSS SECTIONS
6	A			BLESS DRIVE - CROSS SECTIONS
7	A			EDIFICE DRIVE - LONGITUDINAL SECTION AND CROSS SECTIONS
8	A			KINDRED WAY - LONGITUDINAL SECTION AND CROSS SECTIONS
9	A			CENTER ROAD - LONGITUDINAL SECTION AND CROSS SECTIONS
10	A			DRAINAGE LONGITUDINAL SECTIONS - SHEET 1
11	A			DRAINAGE LONGITUDINAL SECTIONS - SHEET 2
12	A			DRAINAGE LONGITUDINAL SECTIONS - SHEET 3
13	A			DRAINAGE LONGITUDINAL SECTIONS - SHEET 4 & PIT SCHEDULE
14	A			SIGNAGE & LINEMARKING PLAN

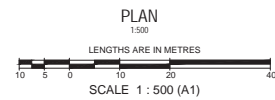
# Approximate field density test location

LOCATION	WATER				COMMUNICATIONS				ELECTRICITY				Road Width	Joint Trenching
	GAS	NW	DW	SW	Cables	Fns	Cables	Poles	BOK	BOK	BOK	BOK		
BLESS DRIVE (North/South)	1.80 W	2.25 W	2.75 W	3.25 W	3.90 W	1.00 BOK	3.39W/1.01E	14.00	14.00	14.00	14.00	W & G & F TTH		
BLESS DRIVE (East/West)	1.80 S	2.25 S	2.75 S	3.25 S	3.90 S	1.00 BOK	4.10S/1.00W	14.00	14.00	14.00	14.00	W & G & F TTH		
EDIFICE DRIVE	2.25 W	2.70 W	3.20 W	1.85 E	1.85 W	2.45 E	1.00 BOK	4.39W/4.08E	16.00	16.00	16.00	W & G & F TTH		
CENTER ROAD	2.25 W	2.70 N	3.20 N	1.85 S	1.85 N	2.50 S	1.00 BOK	4.39W/4.05E	16.00	16.00	16.00	W & G & F TTH		
KINDRED WAY (North/South)	2.25 W	2.70 W	3.20 W	1.85 E	1.85 W	2.45 E	1.00 BOK	4.39W/4.08E	16.00	16.00	16.00	W & G & F TTH		
KINDRED WAY (East/West)	2.25 W	2.70 N	3.20 N	1.85 S	1.85 N	2.45 S	1.00 BOK	4.39W/4.05E	16.00	16.00	16.00	W & G & F TTH		

**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.

**ATTENTION TO CONTRACTOR**

- IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN PROVIDED FOR SETOUT PURPOSES, MATCHES THE TBM COORDINATES SHOWN.
- CONTRACTOR TO ENSURE THAT THE SITE IS PEGGED AND OR SET OUT CHECKED BY THE LICENCED SURVEYOR RESPONSIBLE FOR CERTIFYING THE PLAN OF SUBDIVISION PRIOR TO UNDERGROUND INFRASTRUCTURE BEING INSTALLED.
- 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.



**brees pitt dixon pty. ltd.**  
land surveyors civil engineers

1/19 calo street  
hawthorn east, 3123  
telephone 8823 2300  
fax no. 8823 2310

MELWAY REF. 360-F10

**CREEKSTONE ESTATE  
STAGE 22**

LAYOUT PLAN AND DETAILS

MUNICIPALITY  
**WYNDHAM**

REFERENCE  
8584 E/22

DATE 14/9/21 ISSUED FOR CONSTRUCTION

DESIGN DG

DRAWN DG

CHECKED C.HAGEN

SCALE As Shown

DATUM AHD

DATE Aug'21

SHEET 1 OF 14

C:\projects\2021\BPD\4\BPD\4\Drawings\Stage 22\BPD\_22\_01\_01.dwg (01)



# COMPACTION ASSESSMENT

Job No 21726  
 Report No 21726/R001  
 Date Issued 16/12/2021

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	CREEKSTONE - STAGE 22	Date tested	22/10/21
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:00
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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
Field wet density	t/m <sup>3</sup>	1.88	1.93	1.98	1.95	2.02
Field moisture content	%	30.0	32.1	30.0	29.8	31.0

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
Percent of oversize material	wet	0	0	0	0	0
Peak Converted Wet Density	t/m <sup>3</sup>	1.96	2.00	2.00	1.97	2.09
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	28.5	31.5	30.0	27.5	29.5

Moisture Variation From Optimum Moisture Content	1.0% wet	0.5% wet	0.0%	2.0% wet	1.0% wet	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 <sub>HD</sub> )	%	96.0	96.5	98.5	99.0	96.5	96.0
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Material description

No 1 - 6 Clay Fill
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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 21726  
 Report No 21726/R002  
 Date Issued 08/11/2021

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	CREEKSTONE - STAGE 22	Date tested	25/10/21
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:00
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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	
Field wet density	t/m <sup>3</sup>	1.83	1.83	1.83	1.85	1.82	1.81
Field moisture content	%	29.3	26.3	28.5	26.1	29.4	29.0

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	
Percent of oversize material	wet	0	0	0	0	0	
Peak Converted Wet Density	t/m <sup>3</sup>	1.91	1.91	1.90	1.86	1.86	
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	
Optimum Moisture Content	%	29.0	26.0	27.5	26.0	29.0	28.0

Moisture Variation From Optimum Moisture Content	0.0%	0.5% wet	1.0% wet	0.5% wet	0.5% wet	1.0% wet
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Density Ratio ( R <sub>HD</sub> )	%	96.0	96.0	96.5	99.0	98.0	97.0
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Material description

No 7 - 12 Clay Fill
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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 21726  
 Report No 21726/R003  
 Date Issued 16/12/2021

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	CREEKSTONE - STAGE 22	Date tested	26/10/21
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 08:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	13	14	15	16	17	18
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
Field wet density	t/m <sup>3</sup>	1.83	1.84	1.84	1.82	1.84
Field moisture content	%	31.2	31.8	33.5	32.0	30.4

Test procedure AS 1289.5.7.1

Test No	13	14	15	16	17	18
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0
Peak Converted Wet Density	t/m <sup>3</sup>	1.90	1.90	1.85	1.88	1.88
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	30.0	30.0	33.0	30.5	28.5

Moisture Variation From Optimum Moisture Content	1.0% wet	1.5% wet	0.5% wet	1.5% wet	2.0% wet	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 <sub>HD</sub> )	%	96.5	96.5	99.0	96.5	97.5	98.5
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Material description

No 13 - 18 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry