



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

30th July 2021

Our Reference: 21175:NB1004

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
RATHDOWNE – STAGE 7 (WOLLERT)**

Please find attached our Report No's 21175/R001 and 21175/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 May 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).

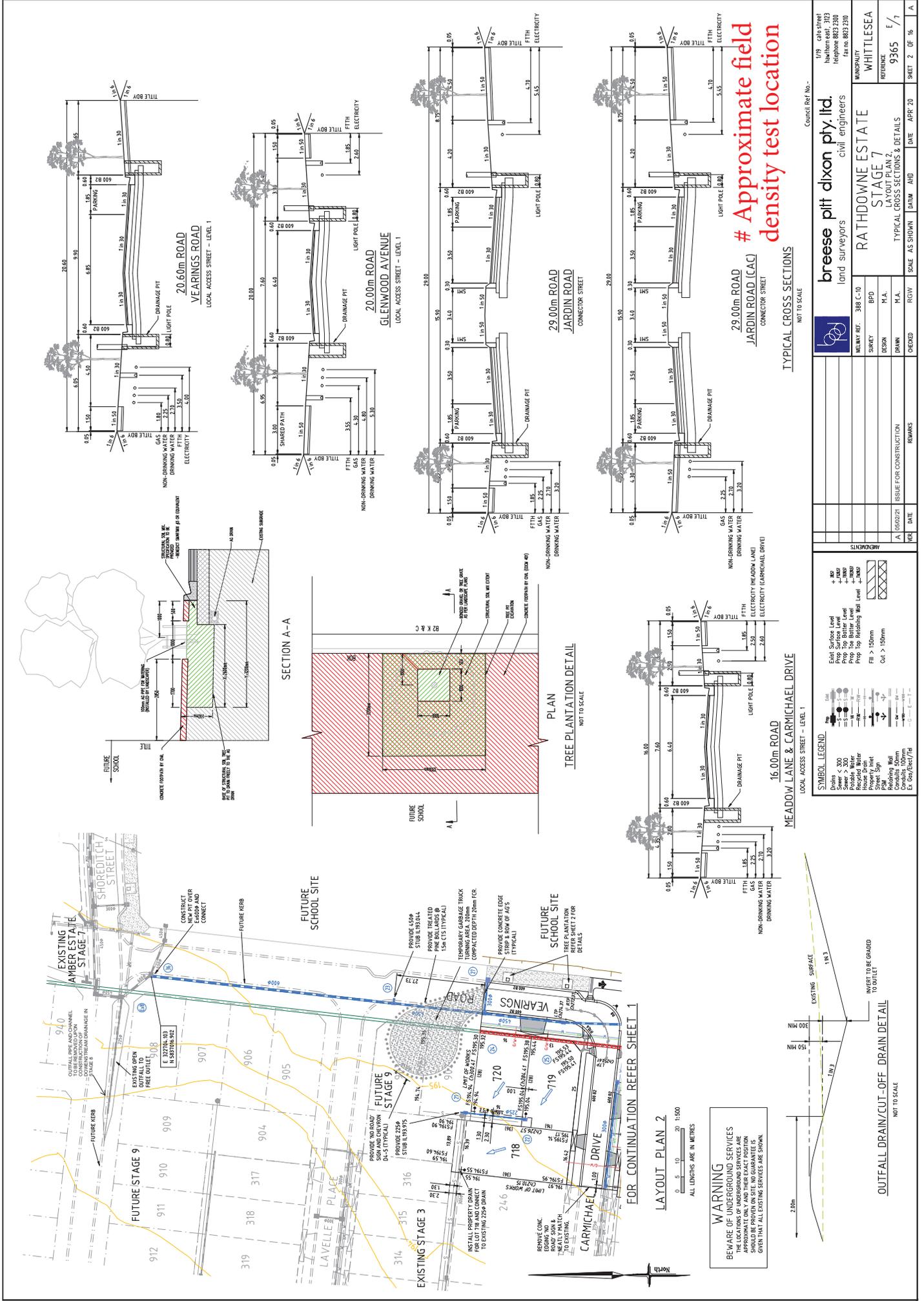
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

A handwritten signature in blue ink, appearing to be 'NB', is written over a light blue circular stamp.

Nick Brock

FIGURE 1 (2 of 2)



Approximate field density test location

Council Ref No. -		breese ptt dixon ply ltd.		1/18 cats street hazlemere east, 3123 telephone 8823 2300 fax no. 8823 2310	
MID SURVEYORS		civil engineers		MUNICIPALITY WHITTLESEA	
MELWAY REF: 388 C-10		RATHDOWNE ESTATE		REFERENCE 9365	
SURVEY BPD		STAGE 7		DATE APR 20	
DESIGN M.A.		LAYOUT PLAN 2		SCALE AS SHOWN	
DRAWN M.A.		TYPICAL CROSS SECTIONS & DETAILS		SHEET 2 OF 16	
CHECKED		ROW		A	
DATE		ISSUE FOR CONSTRUCTION		DRAWN	
MOR		DATE		ROW	
MOR		DATE		ROW	

SYMBOL LEGEND	
Drains < 300	Prop. Surface Level
Sewer > 300	Prop. Top of Bore Level
Water	Prop. Top of Retaining Wall Level
Gas	Prop. Top of Retaining Wall Level
Electricity	Prop. Top of Retaining Wall Level
House Drain	Prop. Top of Retaining Wall Level
Street Drain	Prop. Top of Retaining Wall Level
Street Gully	Prop. Top of Retaining Wall Level
Concrete 150mm	Prop. Top of Retaining Wall Level
Concrete 300mm	Prop. Top of Retaining Wall Level
Ex. Gully/Drain/PA	Prop. Top of Retaining Wall Level

MEADOW LANE & CARMICHAEL DRIVE	
LOCAL ACCESS STREET - LEVEL 1	
NOT TO SCALE	
1:500	
ALL LENGTHS ARE IN METRES	
WARNING	
BEWARE OF UNDERGROUND SERVICES	
EXISTING AND PROPOSED SERVICES ARE SHOWN	
APPROXIMATE ONLY AND THEIR EXACT POSITION	
SHOULD BE PROVEN ON SITE. NO GUARANTEE IS	
GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.	
OUTFALL DRAIN/CUT-OFF DRAIN DETAIL	
NOT TO SCALE	
1:500	
ALL LENGTHS ARE IN METRES	



COMPACTION ASSESSMENT

Job No 21175
 Report No 21175/R001
 Date Issued 20/07/2021

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	RATHDOWNE - STAGE 7	Date tested	28/05/21
Location	WOLLERT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	11:01
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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					
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m ³	1.87	1.85	1.82	1.82	1.84	1.84
Field moisture content	%	17.5	18.1	25.5	24.9	25.9	23.1

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	1.94	1.91	1.91	1.92	1.91	1.91
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	20.0	20.5	28.5	27.0	28.5	26.0

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	3.0% dry	2.0% dry	2.5% dry	2.5% dry
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Density Ratio (R _{HD})	%	96.0	97.0	95.5	95.0	96.0	96.0
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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

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 21175
Report No 21175/R002
Date Issued 20/07/2021

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	RATHDOWNE - STAGE 7	Date tested	31/05/21
Location	WOLLERT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:07
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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					
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m ³	1.89	1.88	1.89	1.88	1.85	1.84
Field moisture content	%	31.8	29.9	31.6	32.4	28.2	30.3

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	1.95	1.94	1.95	1.92	1.92
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	32.0	30.0	32.0	32.5	28.5	31.0

Moisture Variation From Optimum Moisture Content		0.0%	0.0%	0.5% dry	0.0%	0.5% dry	0.5% dry
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Density Ratio (R _{HD})	%	97.0	96.0	97.0	96.5	96.5	96.0
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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