



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

23<sup>rd</sup> January 2018

Our Reference: 17276:NB118

Winslow Constructors Pty Ltd  
50 Barry Road  
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING**  
**ASTON – STAGE 26 (CRAGIEBURN)**

Please find attached our Report No's 17276/R001 to 17276/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 commenced in mid May 2017 and was completed in mid December 2017.

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).

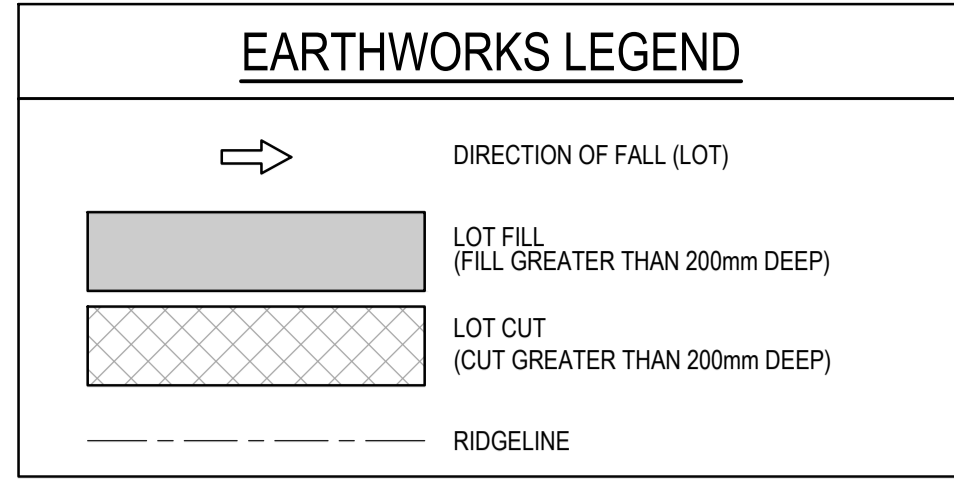
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

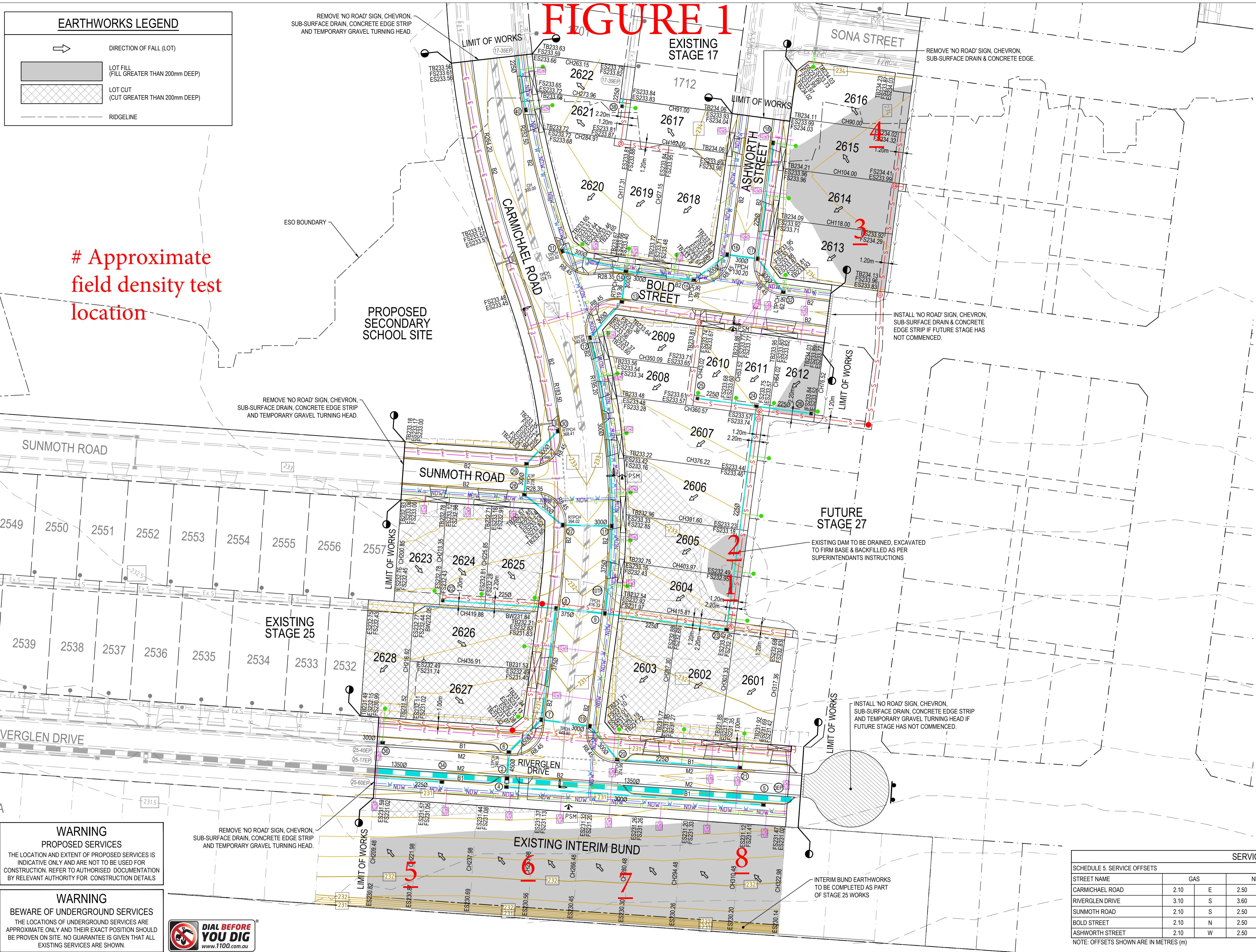
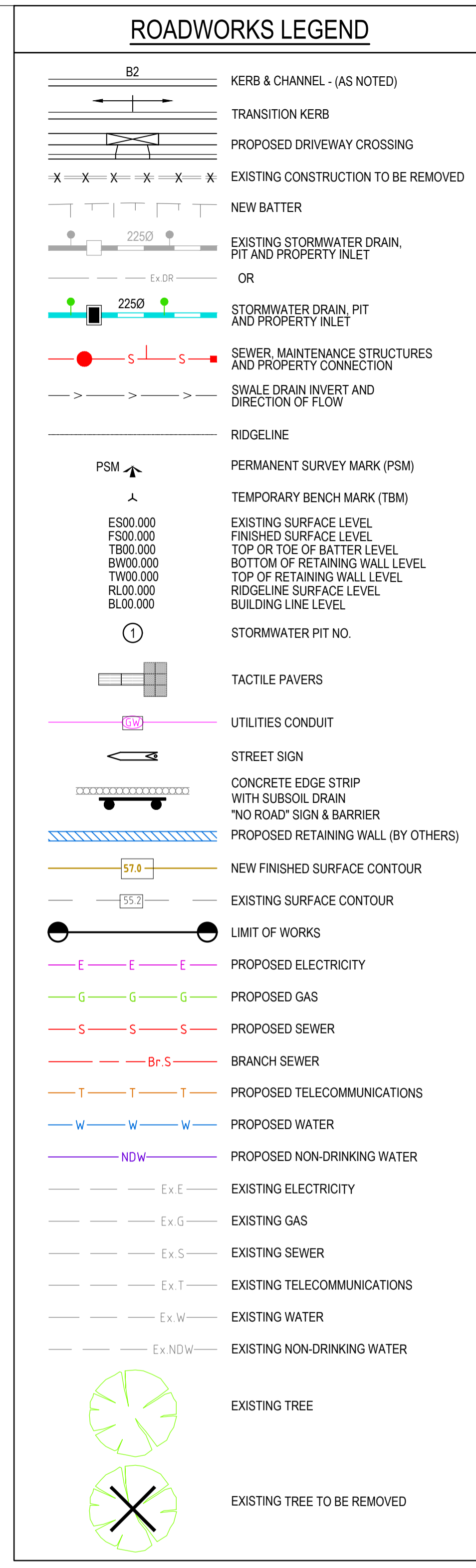
A handwritten signature in blue ink, appearing to be 'Nick Brock', is written over a light blue circular stamp.

Nick Brock





# FIGURE 1



# Approximate field density test location

**WARNING**  
PROPOSED SERVICES

THE LOCATION AND EXTENT OF PROPOSED SERVICES IS INDICATIVE ONLY AND ARE NOT TO BE USED FOR CONSTRUCTION. REFER TO AUTHORISED DOCUMENTATION BY RELEVANT AUTHORITY FOR CONSTRUCTION DETAILS

**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.



#### SCHEDULE 5. SERVICE OFFSETS

STREET NAME	GAS		NDW		WATER		TELECOMMS.		ELECTRICITY	
	M	S	M	S	M	S	M	S	M	S
CARMICHAEL ROAD	2.10	E	2.50	E	3.00	E	2.85	W	3.65	W
RIVERGLEN DRIVE	3.10	S	3.60	S	4.20	S	1.85	N	2.65	N
SUNMOTH ROAD	2.10	S	2.50	S	3.00	S	1.85	N	2.65	N
BOLD STREET	2.10	N	2.50	N	3.00	N	1.85	S	2.65	S
ASHWORTH STREET	2.10	W	2.50	W	3.00	W	1.85	E	2.65	E

NOTE: OFFSETS SHOWN ARE IN METRES (m)

REV	DESCRIPTION	BY	APP	DATE
00	CONSTRUCTION ISSUE	MG	CD	22.02.17



**MEINHARDT**  
Meinhardt Australia Pty Ltd  
A.C.N. 052 275 635  
Level 11, 501 Swanston Street  
Melbourne VIC 3000  
Australia  
T: +61 3 8678 1200  
F: +61 3 8678 1201  
info@meinhardtgroup.com  
http://www.meinhardtgroup.com  
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CLIENT  
PEET LTD  
Level 4, 380 St Kilda Road, Melbourne VIC 3004

TITLE  
LAYOUT PLAN

PROJECT  
ASTON ESTATE  
STAGE 26  
HUME CITY COUNCIL

STATUS  
FOR CONSTRUCTION

DESIGNED	DRAWN	APPROVED	SCALE @ A1	SHEET
LG	AJB	AC	SHOWN	4 of 19
PROJECT No	DRAWING No	REV		
102419-26	C100	00		

DWG FILE: N:\102419 - Barr Property Craigieburn West Road\ASSTAGE\_3\102419-26-C100.DWG - MH PLOT TIME: 22 Feb 2017, 4:48pm





## COMPACTION ASSESSMENT

Job No 17276  
 Report No 17276/R001  
 Date Issued 02/08/2017

**CIVIL GEOTECHNICAL SERVICES**

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	ASTON ESTATE - STAGE 26	Date tested	17/05/17
Location	CRAGIEBURN	Checked by	JHF

<b>Feature</b>	EARTHWORKS	Layer thickness	200 mm	Time: 12:39
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	1	2	-	-	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1				
Approximate depth below FSL						
Measurement depth <span style="float: right;">mm</span>	175	175	-	-	-	-
Field wet density <span style="float: right;">t/m<sup>3</sup></span>	1.97	2.02	-	-	-	-
Field moisture content <span style="float: right;">%</span>	23.4	21.4	-	-	-	-

Test procedure AS 1289.5.7.1

Test No	1	2	-	-	-	-
Compactive effort	Standard					
Oversize rock retained on sieve <span style="float: right;">mm</span>	19.0	19.0	-	-	-	-
Percent of oversize material <span style="float: right;">wet</span>	0	0	-	-	-	-
Peak Converted Wet Density <span style="float: right;">t/m<sup>3</sup></span>	2.00	2.02	-	-	-	-
Adjusted Peak Converted Wet Density <span style="float: right;">t/m<sup>3</sup></span>	-	-	-	-	-	-
Optimum Moisture Content <span style="float: right;">%</span>	23.0	21.5	-	-	-	-

Moisture Variation From Optimum Moisture Content	0.0%	0.0%	-	-	-	-
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<b>Density Ratio ( R<sub>HD</sub> )</b> <span style="float: right;">%</span>	<b>98.5</b>	<b>100.0</b>	-	-	-	-
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Material description

No 1 - 2 Clay Fill
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The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards. Accredited for compliance to ISO/IEC 17025. Accreditation No 9909

Approved Signatory : Justin Fry



## COMPACTION ASSESSMENT

**CIVIL GEOTECHNICAL SERVICES**

6 - 8 Rose Avenue, Croydon 3136

Job No 17276  
 Report No 17276/R002  
 Date Issued 23/01/2018

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	ASTON ESTATE - STAGE 26	Date tested	18/12/17
Location	CRAGIEBURN	Checked by	JHF

<b>Feature</b>	EARTHWORKS	Layer thickness	200 mm	Time: 11:11
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*Test procedure AS 1289.2.1.1 & 5.8.1*

Test No	3	4	5	6	7	-
Location	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 <i>mm</i>	175	175	175	175	175	-
Field wet density <i>t/m<sup>3</sup></i>	2.02	1.98	1.97	1.88	1.88	-
Field moisture content <i>%</i>	21.7	21.1	18.4	12.9	12.0	-

*Test procedure AS 1289.5.7.1*

Test No	3	4	5	6	7	-
Compactive effort	Standard					
Oversize rock retained on sieve <i>mm</i>	19.0	19.0	19.0	19.0	19.0	-
Percent of oversize material <i>wet</i>	0	0	13	2	1	-
Peak Converted Wet Density <i>t/m<sup>3</sup></i>	1.97	1.96	1.95	1.86	1.89	-
Adjusted Peak Converted Wet Density <i>t/m<sup>3</sup></i>	1.99	1.99	2.00	1.87	1.90	-
Optimum Moisture Content <i>%</i>	22.0	22.0	21.0	14.5	13.5	-

Moisture Variation From Optimum Moisture Content	0.0%	1.0% dry	2.5% dry	2.0% dry	2.0% dry	-
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<b>Density Ratio ( R<sub>HD</sub> )</b>	<b>%</b>	<b>102.0</b>	<b>99.5</b>	<b>99.0</b>	<b>100.5</b>	<b>99.0</b>	<b>-</b>
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*Material description*

No 3 - 7 Clay Fill
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The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards. Accredited for compliance to ISO/IEC 17025. Accreditation No 9909

Approved Signatory : Justin Fry