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

9th May 2022

Our Reference: 21847:NB1248

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
OFFICER CENTRAL – STAGE 2 (OFFICER)

Please find attached our Report No's 21847/R001 to 21847/R005 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 December 2021 and was completed in January 2022.

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).

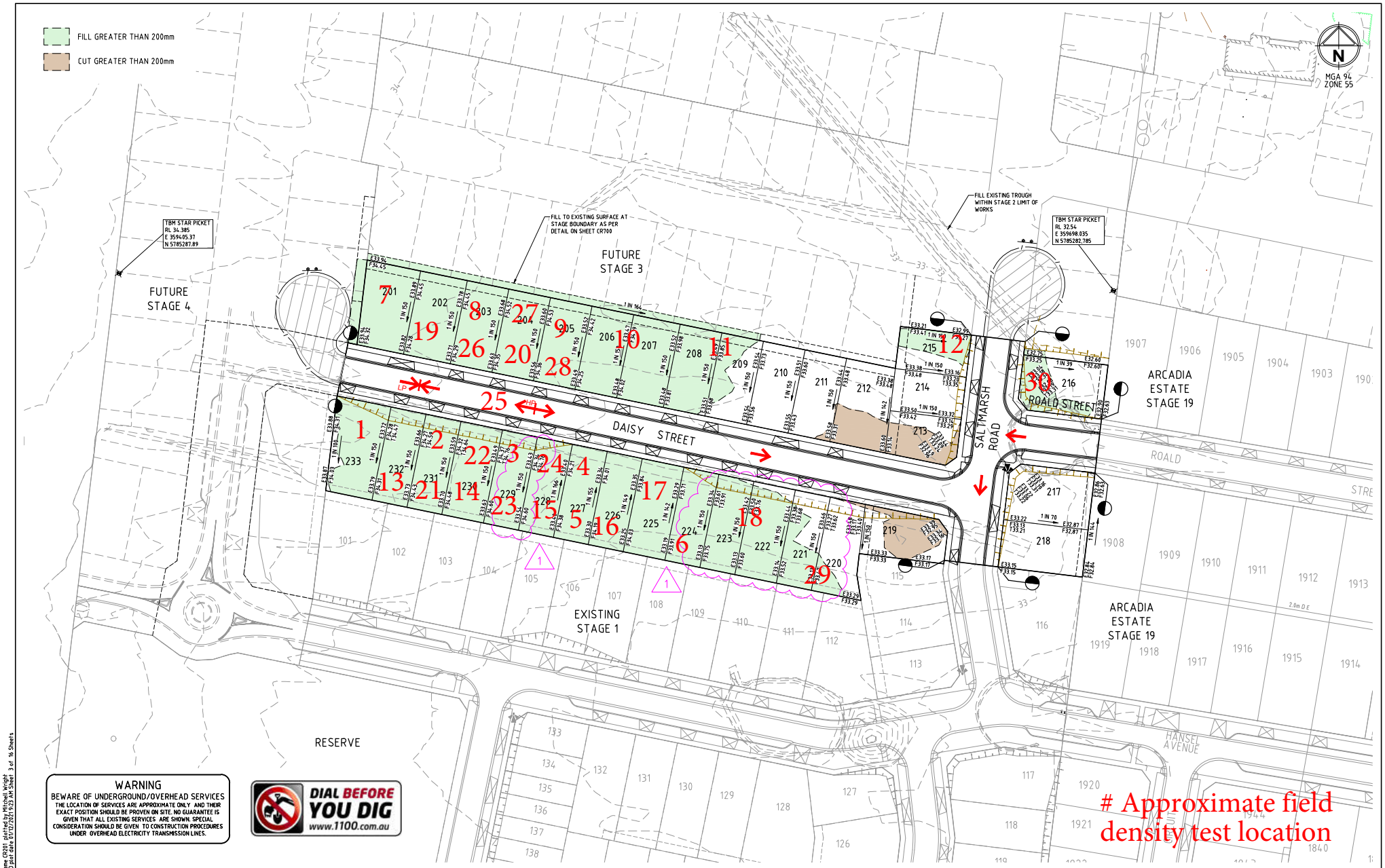
We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

Nick Brock

FIGURE 1



Rev	Amendments	Approved	Date
1	AMENDED LOT LEVELS	B.W	01/12/21
0	ISSUED FOR CONSTRUCTION	S.M	17/09/21

Scale: H 1:500 SCALE @ A1 (0 5 10 15 20 25)

spiire
L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

YourLand Developments

Designed	Checked
M. WRIGHT	B. IBBS
Authorised	Date
B. WAREHAM	01/12/21

OFFICER CENTRAL STAGE 2
ROAD AND DRAINAGE
ROAD LAYOUT PLANS - EARTHWORKS PLAN
CARDINIA SHIRE
YOURLAND PTY LTD

CONSTRUCTION Drg No 308546CR201 Rev 1

file name 308546CR200.dwg layout name CR201 plotted by Mitchell Wright
file location G:\3R\308546\Civil\XLAD plot date 01/12/2021 9:23 AM Sheet 3 of 16 Sheets

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	21847
		Report No	21847/R001
		Date Issued	21/04/2022
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	SB
Project	OFFICER CENTRAL - STAGE 2	*Date tested*	20/01/22
Location	OFFICER	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	10:30

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/m³*	2.02	2.02	2.01	2.03	2.03	2.02
Field moisture content	*%*	23.5	25.3	24.2	23.4	23.4	23.2

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/m³*	2.05	2.05	2.08	2.06	2.09	2.09
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	24.0	26.0	25.5	23.5	23.5	24.5

Moisture Variation From Optimum Moisture Content		0.5% dry	0.5% dry	1.0% dry	0.0%	0.0%	1.0% dry

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})	*%*	**99.0**	**98.5**	**96.5**	**98.5**	**97.5**	**96.5**

Material description

No 1 - 6 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	21847
		Report No	21847/R002
		Date Issued	21/04/2022
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	SB
Project	OFFICER CENTRAL - STAGE 2	*Date tested*	21/01/22
Location	OFFICER	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	09:00

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/m³*	2.01	2.04	2.02	2.02	2.02	2.02
Field moisture content	*%*	22.9	22.0	20.2	21.8	23.4	22.3

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/m³*	2.07	2.05	2.08	2.05	2.06	2.05
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	23.0	23.0	20.5	22.0	23.0	22.5

Moisture Variation From Optimum Moisture Content	0.0%	1.0% dry	0.5% dry	0.0%	0.5% wet	0.5% dry

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})	*%*	**97.0**	**99.5**	**97.5**	**98.5**	**98.0**	**98.5**

Material description

No 7 - 12 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES
6 - 8 Rose Avenue, Croydon 3136

		Job No	21847
		Report No	21847/R003
		Date Issued	21/04/2022
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	SB
Project	OFFICER CENTRAL - STAGE 2	*Date tested*	24/01/22
Location	OFFICER	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	11:30

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	175
Field wet density	*t/m³*	2.03	2.03	2.02	2.02	2.02	2.02
Field moisture content	*%*	21.1	23.4	23.7	24.8	23.3	23.5

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	19.0
Percent of oversize material	*wet*	0	0	0	0	0	0
Peak Converted Wet Density	*t/m³*	2.08	2.06	2.06	2.09	2.06	2.06
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	21.5	24.5	24.5	24.0	23.5	23.5

Moisture Variation From Optimum Moisture Content	0.0%	1.0% dry	1.0% dry	0.5% wet	0.0%	0.0%

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})	*%*	**98.0**	**98.5**	**98.0**	**96.5**	**98.0**	**98.0**

Material description

No 13 - 18 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	21847
		Report No	21847/R004
		Date Issued	21/04/2022
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	SB
Project	OFFICER CENTRAL - STAGE 2	*Date tested*	25/01/22
Location	OFFICER	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	08:00

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**19**	**20**	**21**	**22**	**23**	**24**
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/m³*	1.97	1.97	1.99	1.99	2.03	2.01
Field moisture content	*%*	23.5	23.8	24.3	24.1	23.4	21.8

Test procedure AS 1289.5.7.1

Test No		19	20	21	22	23	24
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/m³*	2.00	2.00	2.02	2.01	2.11	2.11
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	24.0	24.5	25.5	24.0	24.5	23.0

Moisture Variation From Optimum Moisture Content		0.5% dry	0.5% dry	1.0% dry	0.0%	1.0% dry	1.0% dry

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})	*%*	**98.0**	**98.5**	**99.0**	**99.0**	**96.0**	**95.5**

Material description

No 19 - 24 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	21847
		Report No	21847/R005
		Date Issued	21/04/2022
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	SB
Project	OFFICER CENTRAL - STAGE 2	*Date tested*	26/01/22
Location	OFFICER	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	12:00

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**25**	**26**	**27**	**28**	**29**	**30**
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/m³*	1.98	1.97	2.03	2.02	2.03	2.02
Field moisture content	*%*	24.9	24.4	18.7	19.1	17.4	18.3

Test procedure AS 1289.5.7.1

Test No		25	26	27	28	29	30
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/m³*	2.00	2.01	2.05	2.09	2.08	2.06
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	25.5	25.0	19.5	20.0	18.0	18.0

Moisture Variation From Optimum Moisture Content		0.5% dry	0.5% dry	1.0% dry	1.0% dry	1.0% dry	0.0%

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})	*%*	**99.0**	**98.0**	**99.0**	**97.0**	**97.5**	**98.0**

Material description

No 25 - 30 Clay Fill

Approved Signatory : Justin Fry