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

12th January 2023

Our Reference: 22457:NB1431

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
ASPIRE – STAGE 31 (PLUMPTON)

Please find attached our Report No's 22457/R001 and 22457/R006 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 June 2022 and was completed in July 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).

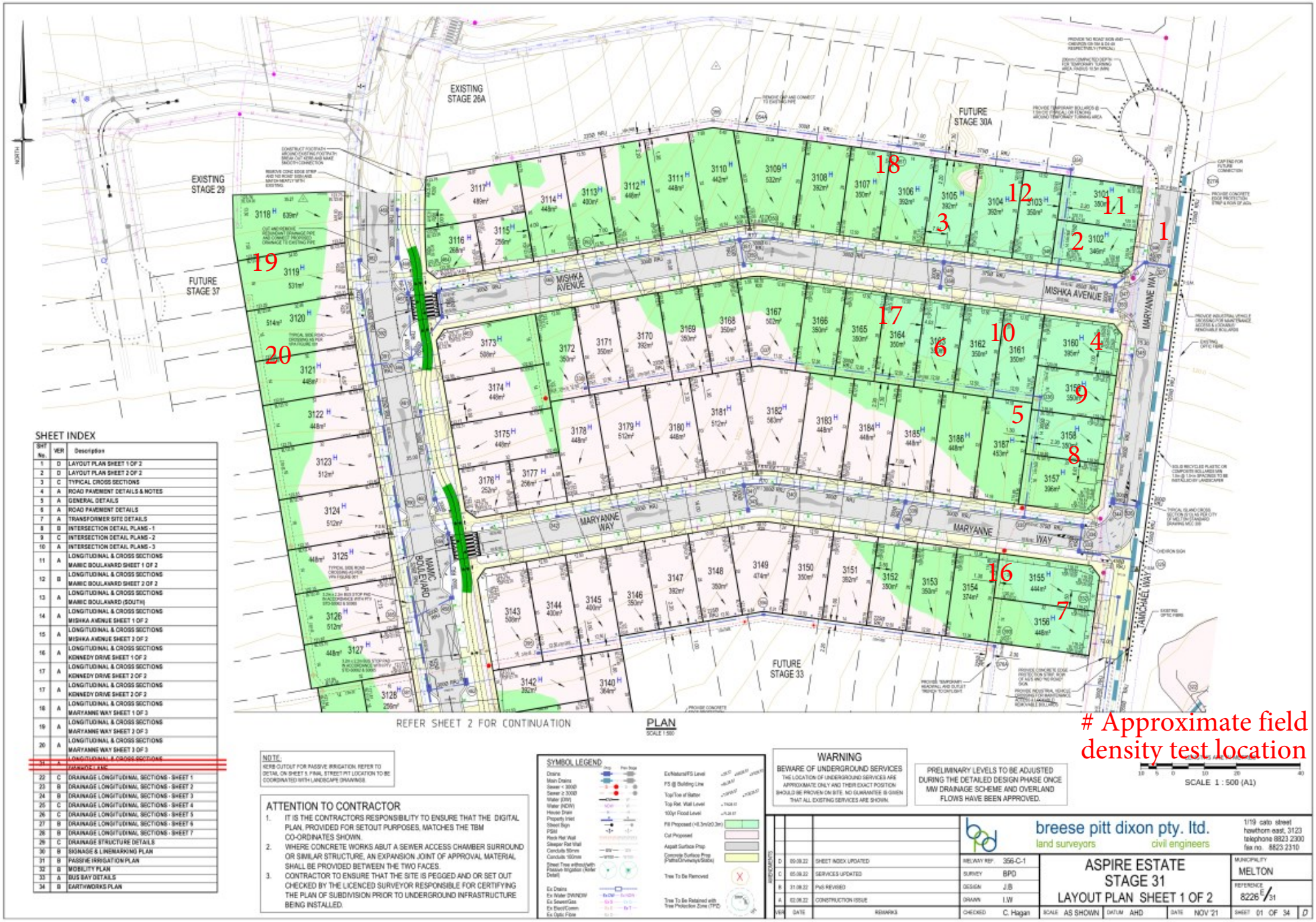
We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

Nick Brock

FIGURE 1 (1 of 2)



SHEET INDEX

SHT No.	VER	Description
1	D	LAYOUT PLAN SHEET 1 OF 2
2	D	LAYOUT PLAN SHEET 2 OF 2
3	C	TYPICAL CROSS SECTIONS
4	A	ROAD PAVEMENT DETAILS & NOTES
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8	B	INTERSECTION DETAIL PLANS - 1
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11	A	LONGITUDINAL & CROSS SECTIONS MAMIC BOULAVARD SHEET 1 OF 2
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17	A	LONGITUDINAL & CROSS SECTIONS KENNEDY DRIVE SHEET 2 OF 2
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21	A	LONGITUDINAL & CROSS SECTIONS
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24	B	DRAINAGE LONGITUDINAL SECTIONS - SHEET 3
25	C	DRAINAGE LONGITUDINAL SECTIONS - SHEET 4
26	C	DRAINAGE LONGITUDINAL SECTIONS - SHEET 5
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29	C	DRAINAGE STRUCTURE DETAILS
30	B	SIGNAGE & LINEMARKING PLAN
31	B	PASSIVE IRRIGATION PLAN
32	B	MOBILITY PLAN
33	A	BUS BAY DETAILS
34	B	EARTHWORKS PLAN

NOTE:
KERB CUTOUT FOR PASSIVE IRRIGATION. REFER TO DETAIL ON SHEET 5. FINAL STREET PIT LOCATION TO BE COORDINATED WITH LANDSCAPE DRAWINGS.

ATTENTION TO CONTRACTOR

1. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN, PROVIDED FOR SETOUT PURPOSES, MATCHES THE TBM CO-ORDINATES SHOWN.
2. WHERE CONCRETE WORKS ABUT A SEWER ACCESS CHAMBER SURROUND OR SIMILAR STRUCTURE, AN EXPANSION JOINT OF APPROVAL MATERIAL SHALL BE PROVIDED BETWEEN THE TWO FACES.
3. 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.

SYMBOL LEGEND

WARNING

BEWARE OF UNDERGROUND SERVICES
THE LOCATION 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.

PRELIMINARY LEVELS TO BE ADJUSTED DURING THE DETAILED DESIGN PHASE ONCE MW DRAINAGE SCHEME AND OVERLAND FLOWS HAVE BEEN APPROVED.

VER	DATE	REMARKS
D	09.09.22	SHEET INDEX UPDATED
C	05.09.22	SERVICES UPDATED
B	31.08.22	PoS REVISED
A	02.06.22	CONSTRUCTION ISSUE

AMENDMENTS

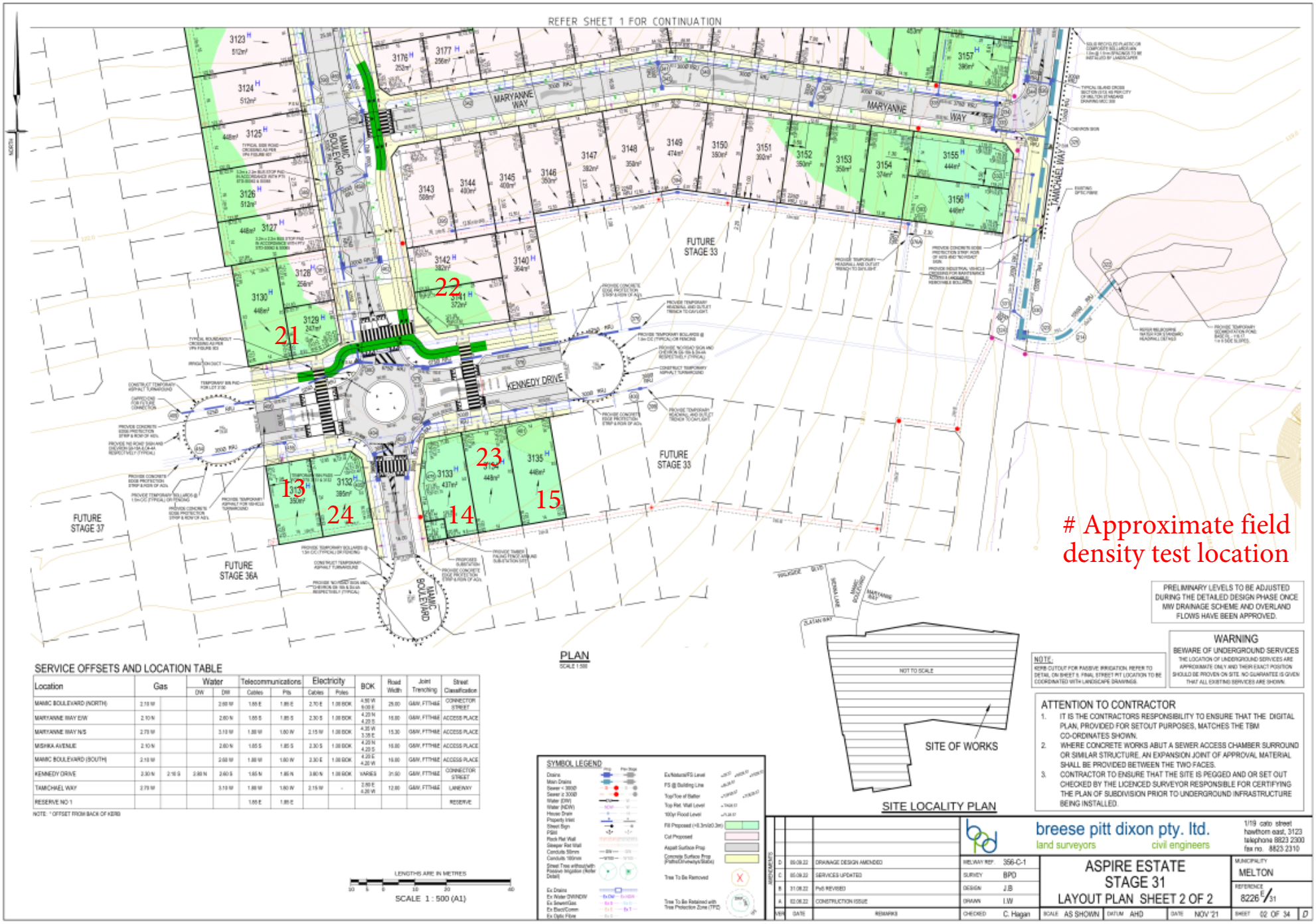
breese pitt dixon pty. ltd.
land surveyors civil engineers
1/19 cato street hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

MELWAY REF.	356-C-1
SURVEY	BPD
DESIGN	JJB
DRAWN	I.W
CHECKED	C. Hagan

ASPIRE ESTATE
STAGE 31
LAYOUT PLAN SHEET 1 OF 2

SCALE	AS SHOWN
DATUM	AHD
DATE	NOV '21
MUNICIPALITY	MELTON
REFERENCE	8226 E/31
SHEET	01 OF 34
	D

FIGURE 1 (2 of 2)



Location	Gas		Water		Telecommunications		Electricity		BOK	Road Width	Joint Trenching	Street Classification
			DW	DW	Cables	Pits	Cables	Poles				
MAMIC BOULEVARD (NORTH)	2.10 W			2.60 W	1.85 E	1.85 E	2.70 E	1.00 BOK	4.50 W 9.00 E	25.00	GAW, FTTH&E	CONNECTOR STREET
MARYANNE WAY E/W	2.10 N			2.60 N	1.85 S	1.85 S	2.30 S	1.00 BOK	4.20 N 4.20 S	16.00	GAW, FTTH&E	ACCESS PLACE
MARYANNE WAY N/S	2.70 W			3.10 W	1.80 W	1.80 W	2.15 W	1.00 BOK	4.35 W 3.35 E	15.30	GAW, FTTH&E	ACCESS PLACE
MISHKA AVENUE	2.10 N			2.60 N	1.85 S	1.85 S	2.30 S	1.00 BOK	4.20 N 4.20 S	16.00	GAW, FTTH&E	ACCESS PLACE
MAMIC BOULEVARD (SOUTH)	2.10 W			2.60 W	1.80 W	1.80 W	2.30 E	1.00 BOK	4.20 E 4.20 W	16.00	GAW, FTTH&E	ACCESS PLACE
KENNEDY DRIVE	2.30 N	2.10 S	2.60 N	2.60 S	1.85 N	1.85 N	3.80 N	1.00 BOK	VARIES	31.50	GAW, FTTH&E	CONNECTOR STREET
TAMCHAEL WAY	2.70 W			3.10 W	1.80 W	1.80 W	2.15 W	-	2.60 E 6.20 W	12.00	GAW, FTTH&E	LANEWAY
RESERVE NO 1					1.85 E	1.85 E						RESERVE

NOTE: * OFFSET FROM BACK OF KERB

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	22457
		Report No	22457/R001
		Date Issued	01/07/2022
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AM
Project	ASPIRE - STAGE 31	*Date tested*	29/06/22
Location	PLUMPTON	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 11:16

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**1**	**2**	**3**	**-**	**-**	**-**
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/m³*	1.90	1.90	1.86	-	-	-
Field moisture content	*%*	28.1	27.9	27.1	-	-	-

Test procedure AS 1289.5.7.1

Test No		1	2	3	-	-	-
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/m³*	1.94	1.93	1.95	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	30.5	30.0	29.0	-	-	-

Moisture Variation From Optimum Moisture Content		2.5% dry	2.0% dry	2.0% 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**	**95.5**	**-**	**-**	**-**

Material description

No 1 - 3 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	22457
		Report No	22457/R002
		Date Issued	12/07/2022
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AM
Project	ASPIRE - STAGE 31	*Date tested*	30/06/22
Location	PLUMPTON	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 13:02

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**4**	**5**	**6**	**-**	**-**	**-**
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/m³*	1.87	1.86	1.82	-	-	-
Field moisture content	*%*	29.4	32.0	28.1	-	-	-

Test procedure AS 1289.5.7.1

Test No		4	5	6	-	-	-
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/m³*	1.93	1.90	1.86	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	32.0	32.5	30.5	-	-	-

Moisture Variation From Optimum Moisture Content		2.5% dry	0.5% dry	2.5% 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})	*%*	**96.5**	**98.0**	**98.0**	**-**	**-**	**-**

Material description

No 4 - 6 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	22457
		Report No	22457/R003
		Date Issued	12/07/2022
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AM
Project	ASPIRE - STAGE 31	*Date tested*	01/07/22
Location	PLUMPTON	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 10:56

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**7**	**8**	**9**	**-**	**-**	**-**
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/m³*	1.98	2.00	1.97	-	-	-
Field moisture content	*%*	29.4	29.4	28.8	-	-	-

Test procedure AS 1289.5.7.1

Test No		7	8	9	-	-	-
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/m³*	2.00	2.02	1.99	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	30.5	30.5	29.0	-	-	-

Moisture Variation From Optimum Moisture Content		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**	**99.0**	**99.0**	**-**	**-**	**-**

Material description

No 7 - 9 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	22457
		Report No	22457/R004
		Date Issued	12/07/2022
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AM
Project	ASPIRE - STAGE 31	*Date tested*	04/07/22
Location	PLUMPTON	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	12:09

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**10**	**11**	**12**	**13**	**14**	**15**
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*	1.80	1.79	1.83	1.91	1.94	1.93
Field moisture content	*%*	29.2	27.9	28.8	27.8	26.5	30.3

Test procedure AS 1289.5.7.1

Test No		10	11	12	13	14	15
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*	1.81	1.84	1.89	1.99	1.98	1.96
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	31.5	30.0	31.0	30.0	29.0	32.5

Moisture Variation From Optimum Moisture Content		2.5% dry	2.0% dry	2.0% dry	2.0% dry	2.0% dry	2.0% 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})	*%*	**99.5**	**97.5**	**96.5**	**96.0**	**98.5**	**99.0**

Material description

No 10 - 15 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES
6 - 8 Rose Avenue, Croydon 3136

		Job No	22457
		Report No	22457/R005
		Date Issued	14/07/2022
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AM
Project	ASPIRE - STAGE 31	*Date tested*	05/07/22
Location	PLUMPTON	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 14:42

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**16**	**17**	**18**	**19**	**20**	**21**
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*	1.90	1.89	1.90	1.90	1.89	1.92
Field moisture content	*%*	28.4	27.7	30.0	30.3	29.5	29.2

Test procedure AS 1289.5.7.1

Test No		16	17	18	19	20	21
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*	1.94	1.91	1.95	1.95	1.94	1.96
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	30.5	28.0	32.5	33.0	31.5	30.5

Moisture Variation From Optimum Moisture Content		2.0% dry	0.0%	2.5% dry	2.5% dry	2.0% dry	1.5% 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})	**%**	**97.5**	**99.0**	**97.5**	**97.5**	**97.5**	**98.0**

Material description

No 16 - 21 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	22457
		Report No	22457/R006
		Date Issued	14/07/2022
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AM
Project	ASPIRE - STAGE 31	*Date tested*	05/07/22
Location	PLUMPTON	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 14:45

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**22**	**23**	**24**	**-**	**-**	**-**
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/m³*	1.92	1.91	1.90	-	-	-
Field moisture content	*%*	26.4	28.0	27.1	-	-	-

Test procedure AS 1289.5.7.1

Test No		22	23	24	-	-	-
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/m³*	1.93	1.93	1.90	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	29.0	30.5	28.5	-	-	-

Moisture Variation From Optimum Moisture Content		2.5% dry	2.5% dry	1.5% 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})	*%*	**99.0**	**98.5**	**99.5**	**-**	**-**	**-**

Material description

No 22 - 24 Clay Fill

Approved Signatory : Justin Fry