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

1st December 2020

Our Reference: 19166:NB840

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
121 FARM ROAD – STAGE 1 (WERRIBEE)

Please find attached our Report No's 19166/R001 to 19166/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 commenced in March 2019 and was completed in March 2020.

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).

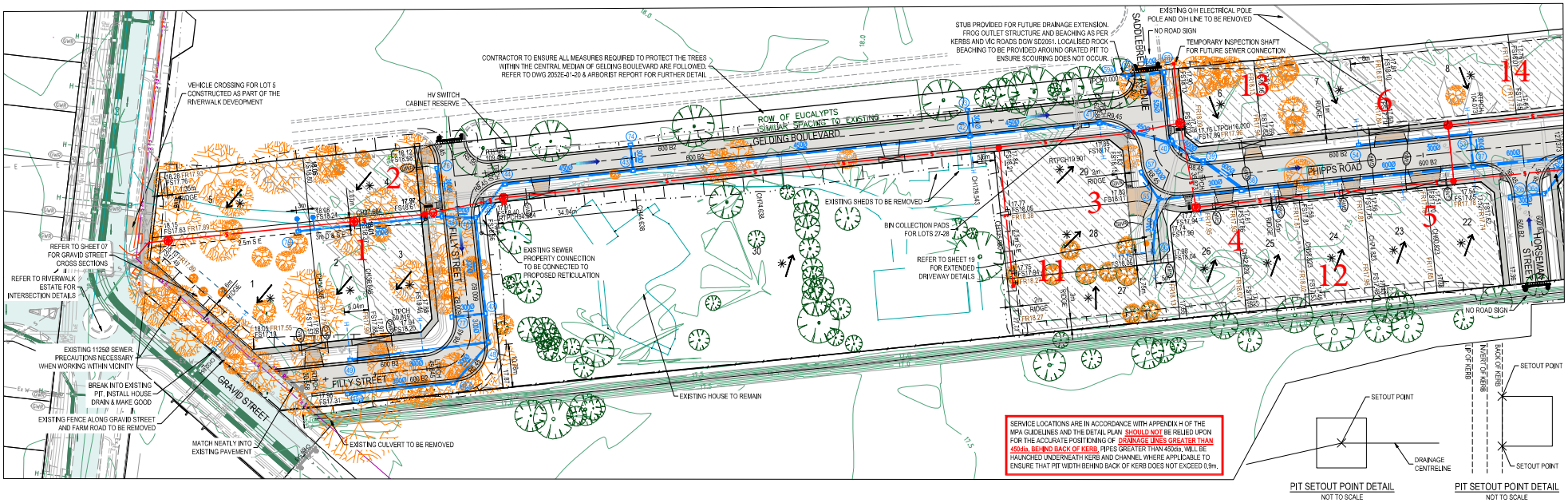
We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

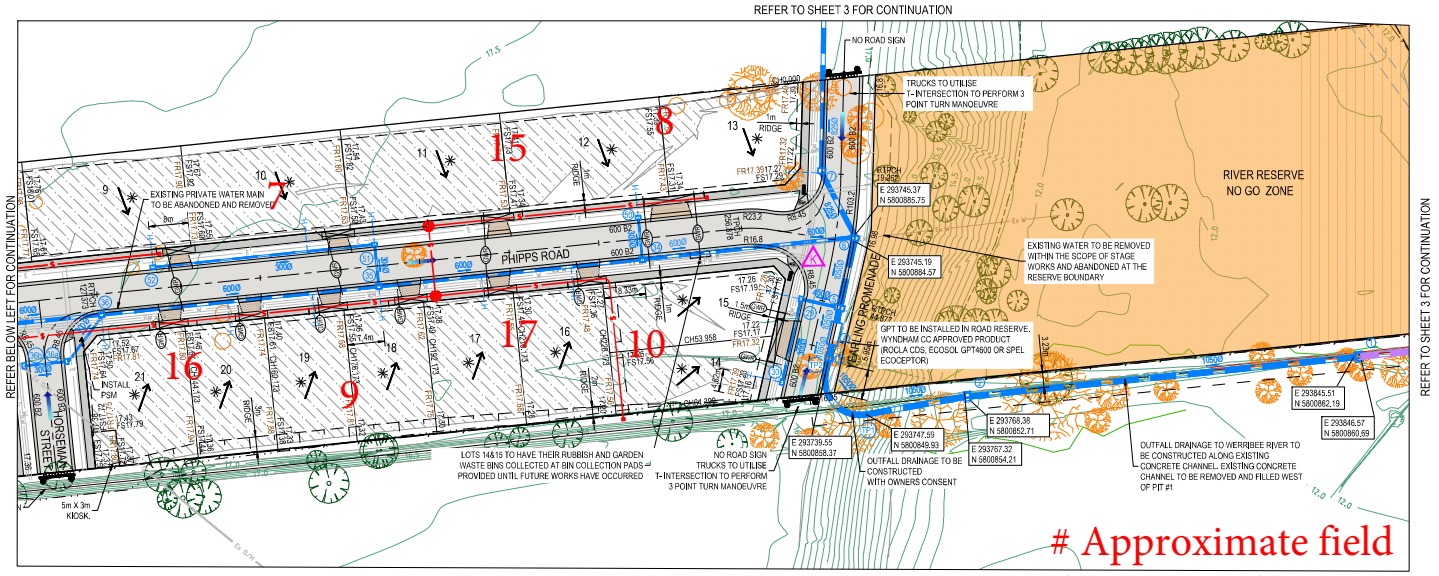
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

Nick Brock

FIGURE 1





Approximate field density test location

LEGEND - LAYOUT PLAN
ALL PROPOSED, FUTURE & EXISTING SERVICE LOCATIONS ARE SHOWN INDICATIVELY

	STORMWATER DRAIN, PIT & PROPERTY INLET
	MAIN DRAIN
	SWALE DRAIN
	SEWER & MAINTENANCE STRUCTURES
	HOUSE DRAIN
E	ELECTRICITY (U.GROUND)
O/H	ELECTRICITY (O.HEAD)
G	GAS
T	TELSTRA
O	OPTIC FIBRE
W	WATER
RW	RECYCLE WATER
Ag	AG. DRAIN
SDW	SERVICE CONDUITS
	TACTILE PAVERS
	EXISTING STORMWATER DRAIN
	EXISTING MAIN DRAIN
	EXISTING SWALE DRAIN
Ex S	EXISTING SEWER & MAINTENANCE STRUCTURES
	EXISTING HOUSE DRAIN
Ex E	EXISTING ELECTRICITY (UNDER GROUND)
Ex O/H E	EXISTING ELECTRICITY OVERHEAD
Ex G	EXISTING GAS
Ex T	EXISTING TELSTRA
Ex O	EXISTING OPTIC FIBRE
Ex W	EXISTING WATER
Ex RW	EXISTING RECYCLED WATER
Ex Ag	EXISTING AG. DRAIN
Ex SDW	EXISTING SERVICE CONDUITS
	EXISTING TACTILE PAVERS
Fut D	FUTURE STORMWATER DRAIN
	FUTURE MAIN DRAIN
	FUTURE SWALE DRAIN
FUT S	FUTURE SEWER & MAINTENANCE STRUCTURES
	FUTURE HOUSE DRAIN
Fut E	FUTURE ELECTRICITY (UNDER GROUND)
Fut O/H E	FUTURE ELECTRICITY OVERHEAD
Fut G	FUTURE GAS
Fut T	FUTURE TELSTRA
Fut O	FUTURE OPTIC FIBRE
Fut W	FUTURE WATER
Fut RW	FUTURE RECYCLED WATER
Fut Ag	FUTURE AG. DRAIN
Fut SDW	FUTURE SERVICE CONDUITS
	FUTURE TACTILE PAVERS
	ZERO LOT LINES
141.34	EXISTING SURFACE LEVEL
FS140.35	FINISHED BUILDING LINE LEVEL
FR157.40	FINISHED RIDGE LINE LEVEL
CH270.00	CHAINAGE
TW159.60	TOP OF RETAINING WALL LEVEL
BW159.00	BOTTOM OF RETAINING WALL LEVEL
	EXISTING RETAINING WALL
	RETAINING WALL
	FUTURE RETAINING WALL
	STRUCTURAL FILL > 200mm DEEP
	EXISTING STRUCTURAL FILL > 200mm DEEP
	CUT > 200mm DEEP
	DIRECTION OF FALL
	OVERLAND FLOW
	GRADED IN DIRECTION OF FALL TO LEVEL INDICATED
	EDGE STRIP, SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER
	EXISTING TREE TO BE RETAINED
	EXISTING TREE TO BE REMOVED
	PERMANENT SURVEY MARK
	TEMPORARY BENCH MARK
	PROPOSED DRIVEWAY & FOOTPATH
	PROPOSED INDUSTRIAL DRIVEWAY
	PROPOSED SHARED FOOTPATH
	PROPOSED ROAD PAVING
	EXISTING ROAD PAVING

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.
Locate all underground services before commencement of works
DIAL 1100 BEFORE YOU DIG
www.1100.com.au

REV	DATE	AMENDMENT / REVISION DESCRIPTION	DESIGNT	APPROVAL
0	11.01.19	ISSUED FOR CONSTRUCTION	NG/SS	LV

ISSUED FOR CONSTRUCTION

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

TITLE	NAME
DRAFTER	S.Sathasivam
DESIGNER	N.Green
CHECKED	L.Vieyra
AUTHORISED	L.Vieyra
REFERENCE No. 1	
REFERENCE No. 2	

Scale 1:500 (0 5 10 20)
SCALE AS SHOWN AT A1

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SMEC
Member of the Surbana Jurong Group
ABN 47 065 475 149
Level 10, 71 Queens Road
Melbourne, VIC 3004
Ph 03 9514 1500

YourLand Developments

Farm Road, Werribee - Stage 1
Wyndham City Council
Road and Drainage
Layout Plan - 1

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
205 G12	2052E-01-02	02 of 25	0

DWG PATH: V:_Vault\Projects_Urban\2052S-Farm Road, Werribee\2052E-01\Dwgs\2052E-01-02.dwg PRINTED BY: SS22037 on 11/01/2019 at 02:52:18 PM

COMPACTION ASSESSMENT

		Job No	19166
CIVIL GEOTECHNICAL SERVICES		*Report No*	19166/R001
6 - 8 Rose Avenue, Croydon 3136		*Date Issued*	01/12/2020
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AM
Project	FARM ROAD - STAGE 1	*Date tested*	23/03/20
Location	WERRIBEE	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 12:46

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*	1.93	1.88	1.93	1.85	1.95	1.91
Field moisture content	*%*	13.7	13.9	13.4	15.4	15.2	15.2

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*	2.02	1.99	2.01	1.93	1.97	1.96
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	15.5	16.5	15.5	17.5	17.0	17.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.0% dry	2.0% dry	2.0% dry	2.5% dry

Density Ratio (R_{HD})	*%*	**96.0**	**95.0**	**96.0**	**95.5**	**99.0**	**97.5**

Material description

No 1 - 6 Clay Fill

AVRLOT HILF V1.10 MAR 13

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
Accredited for compliance with ISO/IEC 17025 - Testing

Accreditation No 9909

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

		Job No	19166
CIVIL GEOTECHNICAL SERVICES		*Report No*	19166/R002
6 - 8 Rose Avenue, Croydon 3136		*Date Issued*	01/12/2020
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AM
Project	FARM ROAD - STAGE 1	*Date tested*	24/03/20
Location	WERRIBEE	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 13:31

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*	2.03	2.01	2.02	1.87	1.89	1.88
Field moisture content	*%*	12.8	13.5	13.1	13.1	13.2	13.4

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*	2.11	2.11	2.13	1.97	2.00	1.97
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	15.0	15.5	15.0	15.0	15.0	15.0

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.0% dry	2.0% dry	2.0% dry	1.5% dry

Density Ratio (R_{HD}) *%*	**96.5**	**95.5**	**95.0**	**95.0**	**95.0**	**95.5**

Material description

No 7 - 12 Clay Fill

AVRLOT HILF V1.10 MAR 13

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

		Job No	19166
CIVIL GEOTECHNICAL SERVICES		*Report No*	19166/R003
6 - 8 Rose Avenue, Croydon 3136		*Date Issued*	01/12/2020
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AM
Project	FARM ROAD - STAGE 1	*Date tested*	25/03/20
Location	WERRIBEE	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 13:57

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**13**	**14**	**15**	**-**	**-**	**-**
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*	2.02	1.99	1.96	-	-	-
Field moisture content	*%*	11.4	10.7	10.8	-	-	-

Test procedure AS 1289.5.7.1

Test No		13	14	15	-	-	-
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*	2.11	2.10	2.06	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	14.0	13.0	13.0	-	-	-

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

Density Ratio (R_{HD})	*%*	**95.5**	**95.0**	**95.5**	**-**	**-**	**-**

Material description

No 13 - 15 Clay Fill

AVRLOT HILF V1.10 MAR 13

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
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Accreditation No 9909

Approved Signatory : Justin Fry