



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

6<sup>th</sup> September 2023

Our Reference: 22505:NB1657

Winslow Constructors Pty Ltd  
50 Barry Road  
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING**  
**RATHDOWNE – STAGE 16 (WOLLERT)**

Please find attached our Report No 22505/R001 which relates 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 June 2023.

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).

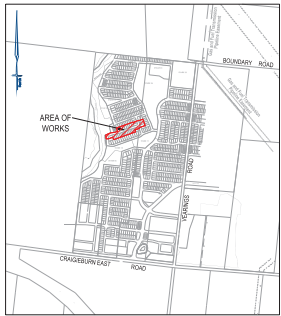
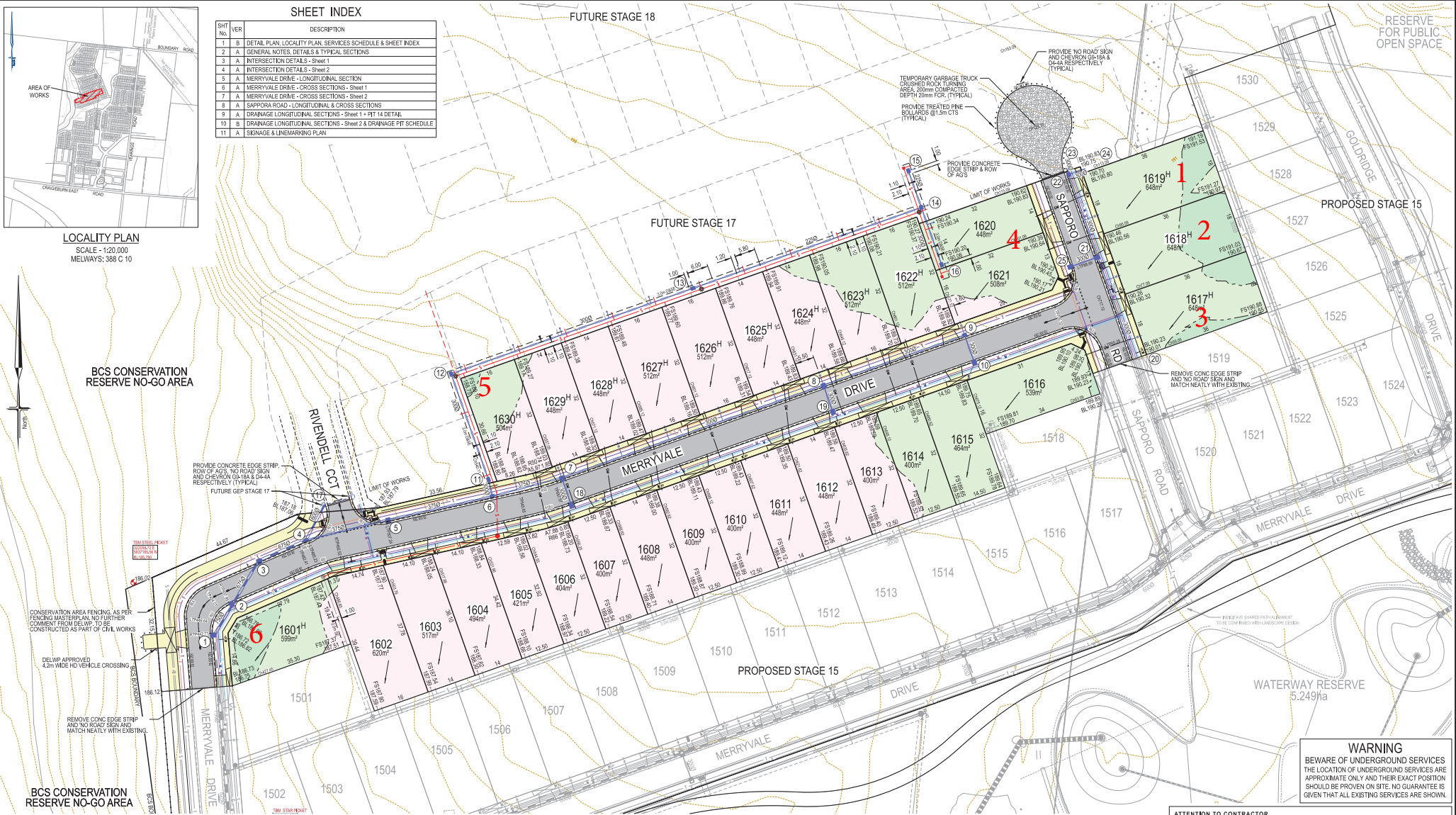
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

A handwritten signature in blue ink, appearing to be 'Nick Brock', written in a cursive style.

Nick Brock

# FIGURE 1



LOCALITY PLAN  
SCALE - 1:20,000  
MELWAYS: 388 C 10



BCS CONSERVATION RESERVE NO-GO AREA

PROVIDE CONCRETE EDGE STRIP, ROW OF ACS, NO ROAD SIGN AND CHEVRON GP-10A & D4-4A RESPECTIVELY (TYPICAL)

PROVIDE CONCRETE EDGE STRIP, ROW OF ACS, NO ROAD SIGN AND CHEVRON GP-10A & D4-4A RESPECTIVELY (TYPICAL)

PROVIDE CONCRETE EDGE STRIP AND NO ROAD SIGN AND MATCH NEATLY WITH EXISTING.

REMOVE CONC EDGE STRIP AND NO ROAD SIGN AND MATCH NEATLY WITH EXISTING.

BCS CONSERVATION RESERVE NO-GO AREA

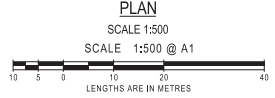
**SYMBOL LEGEND**

Prop	Prop	Prop	Prop
Drains	Sewer < 3000	Water (DW)	Water (NDW)
House Drain	Property Eject	Street Sign	PSM
Rock Ret Wall	Sleeper Ret Wall	Conduits 50mm	Conduits 100mm
Tree To Be Removed	Tree To Be Retained with Tree Protection Zone (TPZ)		

# Approximate field density test location

**SERVICES OFFSETS AND LOCATIONS**

Location	Gas		Water		Communications		Electricity		BOK	Road Width	Joint Trenching	Street Classification
	N/W	S/E	N/W	S/E	Cables	Pipes	Cables	Pipes				
MERRYVALE DRIVE (Lot 1601)	2.10 EAS	2.80 EAS	3.10 EAS	3.10 EAS	5.80 W&N	1.80 EAS	6.80 W&N	1.00 BOK	4.35 EAS 8.95 W&N	20.00	G&W, FTH&E	STREET LEVEL
MERRYVALE DRIVE (Lots 1602 to 1616)	2.10 S	2.60 S	3.10 S	3.10 S	1.80 N	1.80 N	2.60 N	1.00 BOK	4.20 N 4.20 S	16.00	G&W, FTH&E	STREET LEVEL
SAPPORO ROAD	2.10 E	2.60 E	3.10 E	3.10 E	1.80 W	1.80 E	2.60 W	1.00 BOK	4.20 W 4.20 E	16.00	G&W, FTH&E	STREET LEVEL
RIVENDALL CIRCUIT	2.10 E	2.60 E	3.10 E	3.10 E	5.80 W	1.80 E	6.80 W	1.00 BOK	4.35 E 8.95 W	20.00	G&W, FTH&E	STREET LEVEL



**SHEET INDEX**

SHT No.	VER	DESCRIPTION
1	B	DETAIL PLAN, LOCALITY PLAN, SERVICES SCHEDULE & SHEET INDEX
2	A	GENERAL NOTES, DETAILS & TYPICAL SECTIONS
3	A	INTERSECTION DETAILS - Sheet 1
4	A	INTERSECTION DETAILS - Sheet 2
5	A	MERRYVALE DRIVE - LONGITUDINAL SECTION
6	A	MERRYVALE DRIVE - CROSS SECTIONS - Sheet 1
7	A	MERRYVALE DRIVE - CROSS SECTIONS - Sheet 2
8	A	SAPPORO ROAD - LONGITUDINAL & CROSS SECTIONS
9	A	DRAINAGE LONGITUDINAL SECTIONS - Sheet 1 + PT 14 DETAIL
10	B	DRAINAGE LONGITUDINAL SECTIONS - Sheet 2 & DRAINAGE PIT SCHEDULE
11	A	SEWERAGE & LINEMARKING PLAN

**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.

**ATTENTION TO CONTRACTOR**

- IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN, PROVIDED FOR SETOUT PURPOSES, MATCHES THE TBM COORDINATES SHOWN.
- Contractor to ensure that the site is pegged and or set out checked by the licensed surveyor responsible for certifying the Plan of Subdivision prior to underground infrastructure being installed.
- Where concrete works abut a sewer access chamber provided or similar structure, an expansion joint of approved material shall be provided between the two faces.

bpd 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. 388-C-10	SURVEY BPD	MUNICIPALITY WHITTLESEA
DESIGN RGW	DRAWN PG	REFERENCE 9365 E/16
SCALE AS SHOWN	DATUM AHD	DATE DEC'21
CHECKED	SHEET 1 OF 11	B



# COMPACTION ASSESSMENT

Job No 22505  
 Report No 22505/R001  
 Date Issued 21/06/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	RATHDOWNE - STAGE 16	Date tested	16/06/23
Location	WOLLERT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:05
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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	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
Field wet density	t/m <sup>3</sup>	2.01	2.04	2.03	2.02	2.00
Field moisture content	%	20.8	21.1	20.6	20.1	25.3

### 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
Percent of oversize material	wet	0	0	0	0	0
Peak Converted Wet Density	t/m <sup>3</sup>	2.02	2.08	2.05	2.04	2.02
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	23.0	23.5	23.0	22.5	24.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.0% dry	2.0% dry	0.5% wet	2.5% dry
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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 <sub>HD</sub> )	%	99.5	98.5	99.0	99.0	98.5	99.5
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### Material description

No 1 - 6 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry