



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

17th May 2018

Our Reference: 18125:NB196

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
CORNERSTONE – STAGE 8 (WYNDHAM VALE)**

Please find attached our Report No's 18125/R001 and 18125/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 was performed March 2018.

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 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 read 'Nick Brock', is written over a light blue circular stamp.

Nick Brock

FIGURE 1

ATTENTION TO CONTRACTOR

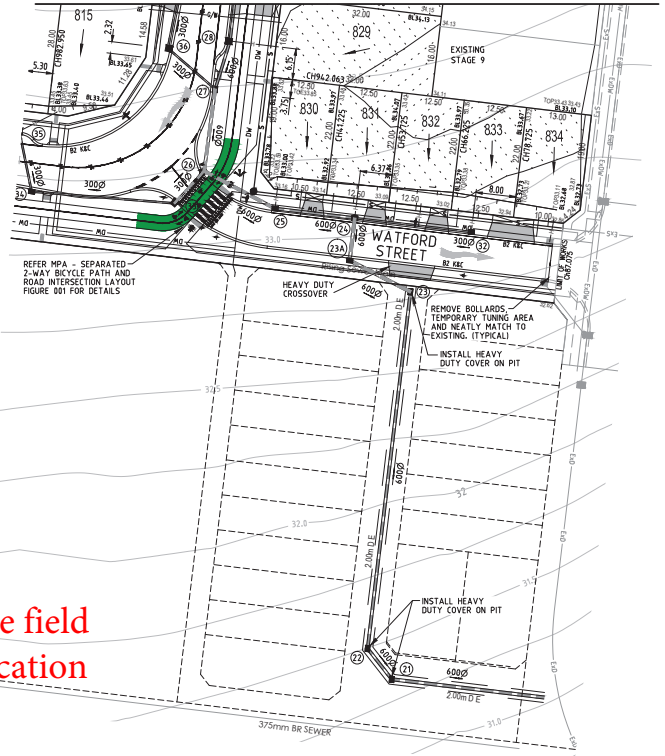
- IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN, PROVIDED FOR SETOUT PURPOSES, MATCHES THE TBM CO-ORDINATES SHOWN.
- WHERE CONCRETE WORKS ABOUT A SEWER ACCESS CHAMBER SURROUND OR SIMILAR STRUCTURE, AN EXPANSION JOINT OF APPROVAL MATERIAL SHALL BE PROVIDED BETWEEN THE TWO FACES.

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.

Planning and Environment Act 1987
Wyndham Planning Scheme
Approved Plan As Required
under Condition 24
Permit No WYP750/14
Date 20/12/2017

REFER BELOW LEFT FOR CONTINUATION

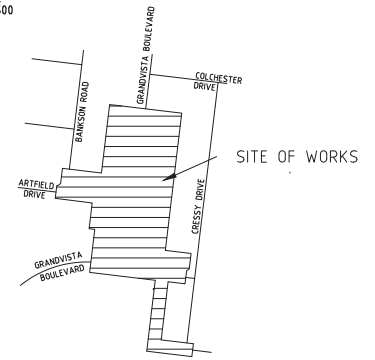


Approximate field density test location

PLAN SCALE 1:500

SHEET INDEX

SHT No.	VER	DESCRIPTION
1	P1	LAYOUT PLAN AND DETAILS
2	P1	INTERSECTION DETAILS
3	P1	INTERSECTION DETAILS
4	P1	ROAD LONGSECTIONS - SHEET 1
5	P1	ROAD LONGSECTIONS - SHEET 2
6	P1	ROAD CROSS SECTIONS - SHEET 1
7	P1	ROAD CROSS SECTIONS - SHEET 2
8	P1	ROAD CROSS SECTIONS - SHEET 3
9	P1	ROAD CROSS SECTIONS - SHEET 4
10	P1	ROAD CROSS SECTIONS - SHEET 5
11	P1	DRAINAGE LONGITUDINAL SECTIONS - SHEET 1
12	P1	DRAINAGE LONGITUDINAL SECTIONS - SHEET 2
13	P1	DRAINAGE LONGITUDINAL SECTIONS - SHEET 3
14	P1	TYPICAL CROSS SECTIONS
15	P1	SIGNAGE AND LINEMARKING



SITE LOCALITY PLAN NOT TO SCALE

REFER ABOVE RIGHT FOR CONTINUATION

PLAN SCALE 1:500

SERVICE OFFSETS AND LOCATION TABLE

ROAD NAME	RESERVE WIDTH	WATER		GAS		ELECTRICITY		TELECOMMUNICATIONS		BOK		
		DW	NDW	SIDE	OFFSET	W/C CABLE	SIDE	OFFSET	SIDE	SIDE		
		POLE		SIDE		SIDE		SIDE		SIDE		
GRANDVISTA BOULEVARD NORTH/SOUTH	25.50	3.35 E	2.75 S	2.25 E	W	0.80*	W	2.60	W	1.80	4.35 W	9.55 E
GRANDVISTA BOULEVARD EAST/WEST	25.50	3.35 S	2.75 S	2.25 S	N	0.80*	N	2.60	N	1.80	VARIES	VARIES
ARTFIELD DRIVE	16.00	3.20 N	2.70 N	2.25 N	S	0.80*	S	2.60	S	1.85	4.35 N	4.05 S
BANKSTON ROAD	16.00	3.20 E	2.70 E	2.25 E	W	0.80*	W	2.60	W	1.85	4.05 W	4.35 E
WATFORD STREET	16.00	3.20 N	2.70 N	2.25 N	S	0.80*	S	2.60	S	1.85	4.35 N	4.05 S

NOTE: * OFFSET FROM BACK OF KERB

SYMBOL LEGEND

Drains	Ex/Natural/FS Level	35.57
Sewer <300	FS @ Building Line	81.25.57
Sewer >300	Top/Toe of Batter	70.95.57 / 70.95.57
Water	Top Ret. Wall Level	70.95.57
House Drain	Fill Prop/Ex	(0.2m-0.5m depth)
Property Inlet	Fill Prop/Ex	(0.5m depth)
Street Sign	Out Prop/Ex	(>0.5m depth)
PSM	Out Prop/Ex	(>0.2m depth)
Retaining Wall	Threshold Treatment	
Conduits 50mm		
Conduits 100mm		
Ex Coy/Elec/Tel		

REV	DATE	DESCRIPTION
P3	06.12.17	COUNCIL COMMENTS
P2	19.10.17	COUNCIL COMMENTS
P1	04.09.17	PRELIMINARY ISSUE

breese pitt dixon pty. ltd.
land surveyors civil engineers

MELWAY REF. 204 E9
SURVEY BPD
DESIGN JSB
DRAWN JDD
CHECKED TBA

**CORNERSTONE ESTATE
STAGE 8
ROAD LAYOUT**

1/19 cato street
hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

MUNICIPALITY
WYNDHAM
REFERENCE
8890 - E/8

SCALE AS SHOWN DATUM AHD DATE SEPT '17 SHEET 1 OF 15 P3



COMPACTION ASSESSMENT

Job No 18125
 Report No 18125/R001
 Date Issued 17/05/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	B G G
Project	CORNERSTONE - STAGE 8	Date tested	02/03/18
Location	WYNDHAM VALE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:33
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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 <i>mm</i>	175	175	175	175	175	175
Field wet density <i>t/m³</i>	1.74	1.74	1.69	1.67	1.67	1.71
Field moisture content %	26.3	30.0	26.3	31.7	27.3	29.0

Test procedure AS 1289.5.7.1

Test No	1	2	3	4	5	6
Compactive effort	Standard					
Oversize rock retained on sieve <i>mm</i>	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material <i>wet</i>	0	0	0	0	0	0
Peak Converted Wet Density <i>t/m³</i>	1.80	1.74	1.74	1.71	1.70	1.76
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content %	28.5	32.5	29.0	34.5	30.5	31.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.5% dry	2.5% dry	2.0% dry	2.5% dry
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Density Ratio (R_{HD})	97.0	99.5	97.5	98.0	98.0	97.0
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Material description

No 1 - 6 Clay Fill



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

Job No 18125
 Report No 18125/R002
 Date Issued 16/05/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by B G G
 Date tested 06/03/18
 Checked by JHF

Client WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)
 Project CORNERSTONE - STAGE 8
 Location WERRIBEE

Feature **EARTHWORKS** Layer thickness 200 mm Time: 10:13

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/m ³	1.71	1.67	1.66	-	-	-
Field moisture content	%	22.3	25.8	24.8	-	-	-

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/m ³	1.71	1.67	1.69	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	24.0	28.5	27.5	-	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.5% dry	-	-	-
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Density Ratio (R _{HD})	%	100.0	99.5	97.5	-	-	-
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Material description

No 7 - 9 Clay Fill



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