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

6th September 2023

Our Reference: 22666:NB1656

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
RATHDOWNE – STAGE 15 (WOLLERT)

Please find attached our Report No's 22666/R001 to 22666/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 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

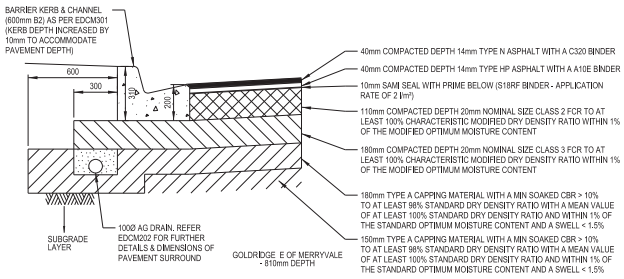
Nick Brock

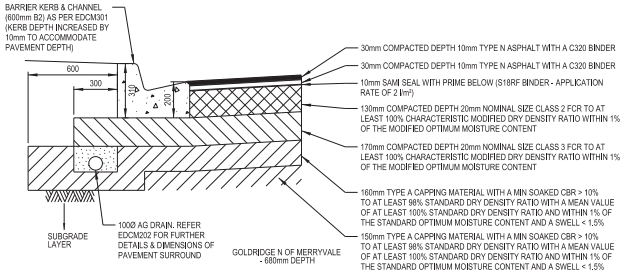
FIGURE 1 (1 of 2)

FIGURE 1 (2 of 2)

NOTES

1. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH PLANS AND CURRENT CITY OF WHITTLESEA SPECIFICATIONS AND STANDARD DRAWINGS APPROVED BY COUNCIL AND TO THE SATISFACTION OF THE ENGINEER.
2. COUNCIL TO BE NOTIFIED 2 CLEAR DAYS PRIOR TO COMMENCEMENT OF WORKS.
3. DRAINAGE AND PITS TO BE SETOUT FROM OFFSETS SHOWN RATHER THAN FROM CENTRELINE PIPE CHAINAGES. REFER EDCM601-608 FOR FURTHER DETAILS.
4. ALL PIPES TO BE CLASS 2 UNLESS OTHERWISE SPECIFIED AND SHALL BE RRJ UP TO AND INCLUDING 750mm DIAMETER. PIPES ABOVE THIS SIZE MUST BE FLUSH JOINTED WITH EXTERNAL SEALING BANDS. ALL DRAINS THAT CROSS UNDER ROAD PAVEMENTS ARE TO BE CLASS 4 R.C.P.
5. JOINTING FOR CURVED PIPE ALIGNMENT SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS (RRJ'S FOR MINOR DEFLECTIONS OR COMPLETE R.C. BANDAGES)
6. PROPERTY INLETS ARE TO BE PLACED 1.0m FROM THE LOW CORNER OF LOT UNLESS OTHERWISE SHOWN.
7. LOTS DENOTED THUS 416H ARE TO BE PROVIDED WITH A 100mm HOUSE DRAIN PLACED 5.5m FROM THE LOW CORNER OF THE LOT UNLESS OTHERWISE SHOWN. HOUSE DRAINS TO BE CONNECTED TO STREET DRAINAGE WITH 27A & CAP, CLEAR OF ANY PAVING. IF CONNECTION IS WITHIN PAVING A PIT MUST BE USED.
8. APPROVED GRANULAR BACKFILL TO BE PROVIDED WHERE PIPE TRENCHES ENCROACH UNDER ROADWAY DUE TO DEEP EXCAVATIONS IN ROCK.
9. SHALLOW CUT OFF DRAINS ARE TO BE PROVIDED ON SUBDIVISION BOUNDARY WHERE NECESSARY.
10. PRIOR TO COMMENCEMENT OF WORKS ON SITE, THE CONTRACTOR MUST ENSURE THAT ALL MATTERS RELATING TO THE OCCUPATIONAL HEALTH AND SAFETY ACT 2004, INCLUDING ALL RELEVANT REGULATIONS, HAVE BEEN ADDRESSED. IN PARTICULAR, THE REQUIRED NOTIFICATIONS MUST BE CONVEYED TO THE VICTORIAN WORKCOVER AUTHORITY - HEALTH & SAFETY DIVISION WITH RESPECT TO TRENCHING OPERATIONS. DETAILS OF THE CONTRACTORS OCCUPATIONAL HEALTH & SAFETY PROCEDURES MUST BE LODGED WITH THE SUPERINTENDENT PRIOR TO COMMENCEMENT OF WORKS.
11. AGRICULTURAL PIPE DRAINS TO PLACED BEHIND ALL KERB AND CHANNEL AND BUFFER PITCHERS AND WHERE DIRECTED BY THE ENGINEER (REFER TO STD DRG EDCM202).
12. ALL DRAINAGE TRENCHES UNDER ROAD PAVEMENTS, KERB & CHANNEL, PARKING BAYS, DRIVEWAYS, FOOTPATHS AND BEHIND KERB & CHANNEL SHALL BE BACKFILLED WITH CRUSHED ROCK
13. BATTERS SHALL BE 1 IN 6 FOR CUT & FILL UNLESS OTHERWISE SHOWN. BATTERS EXCEEDING 1 IN 6 MUST BE STABILISED AS PER COUNCIL REQUIREMENTS.
14. ALL NATIVE TREES AND SHRUBS TO BE RETAINED UNLESS ROAD CONSTRUCTION NECESSITATES THEIR REMOVAL OR REMOVAL IS DIRECTED BY THE ENGINEER.
15. LOTS TO BE GRADED AND LEFT CLEAN TO THE SATISFACTION OF THE ENGINEER.
16. ON COMPLETION THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF RUBBISH AND SPOIL FROM SITE.
17. WHERE WORKS ARE IN THE VICINITY OF EXISTING SERVICES, THESE SERVICES ARE TO BE LOCATED AND THE VARIOUS AUTHORITIES NOTIFIED PRIOR TO COMMENCEMENT OF WORKS.
18. ALL MATERIAL SURROUNDING SERVICE AUTHORITY PITS LOCATED IN FOOTPATHS MUST BE ADEQUATELY COMPACTED IN 150mm LAYERS AND TESTED TO THE SATISFACTION OF THE CITY OF WHITTLESEA PRIOR TO THE CONSTRUCTION OF FOOTPATH BAYS ADJACENT TO THESE PITS.
19. THE WATER CONDUIT OFFSET FROM THE LOT BOUNDARY IS GIVEN ON THE WATER RETICULATION PLAN. THE CONTRACTOR MUST CONSTRUCT CONDUITS TO ACCORD WITH THE GIVEN OFFSET AND ENSURE THAT THE CONCRETER MARKS THE KERB AND FOOTPATH EXACTLY ABOVE THE CONDUIT.
20. ALL GAS AND WATER CONDUITS FOR RESIDENTIAL LOTS TO BE PVC CLASS 12. 50mm DIAMETER & 100mm DIAMETER RESPECTIVELY.
21. TELSTRA/NBN Co TO BE NOTIFIED 7 DAYS PRIOR TO CONCRETE BEING PLACED.
22. CONDUITS ARE TO BE EXTENDED 450mm BEHIND FACE OF KERB AND TO BE REFERENCED ON FACE OF KERB.
23. ALL STREET SIGNS TO BE CONSTRUCTED AND ERECTED TO CURRENT CITY OF WHITTLESEA STANDARDS. STREET NAME PLATES TO BE IN ACCORDANCE WITH STANDARD DRAWING SD825, INCLUDING 'NO THROUGH ROAD' NOMINATION WHERE APPLICABLE.
24. TRAFFIC CONTROL SIGNS, MARKINGS & DELINEATORS TO BE INSTALLED IN ACCORDANCE WITH AS1742.2. ALL LINE MARKING IS TO BE LONG LIFE ROAD MARKING, WITH LONGITUDINAL LINES IN THERMOPLASTIC & TRANSVERSE MARKINGS IN COLD APPLIED.
25. ALL DRIVEWAYS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH EDCM501 & 502 AND ARE TO BE OFFSET 0.75m FROM SIDE BOUNDARY OR EASEMENT UNLESS OTHERWISE SHOWN.
26. ALL DRIVEWAY RAMPS INTO PROPERTIES ARE TO BE CUT IN AT A MAXIMUM GRADE OF 1 IN 6.
27. ALL PEDESTRIAN CROSSINGS ARE TO BE CONSTRUCTED GENERALLY IN ACCORDANCE WITH EDCM403. ALL PRAM CROSSING SPLAYS MUST BE 600mm WIDE AND NO GREATER.
28. FILL AREAS ARE TO BE STRIPPED OF TOPSOIL, FILLED AND TOPSOIL REPLACED TO OBTAIN FINAL FILL LEVELS AS SHOWN ON PLANS. FILLING TO BE CLEAN CLAY COMPACTED TO A DRY DENSITY NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE STANDARD COMPACTION TEST IN ACCORDANCE WITH AUSTRALIAN STANDARD AS1289.5.2.1-2003. CONTROL TESTING TO COMPLY WITH AS3798-2007 APPENDIX B, LEVEL 1.
29. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL IMPORTED FILL MATERIAL, INCLUDING TOPSOIL, SATISFIES THE DESCRIPTION FOR CLEAN FILL MATERIAL IN EPA BULLETIN PUBLICATION No. 448 (SEPT '95) AND SUBSEQUENT REVISIONS. THE CONTRACTOR SHALL PROVIDE VERIFICATION INCLUDING TEST CERTIFICATES TO THE SUPERVISING ENGINEER.
30. FILL REQUIRED UNDER ROADWAY KERB AND CHANNEL AND FOOTPATH TO BE UNDERTAKEN AS PER COUNCIL'S CONSTRUCTION SPECIFICATION FOR ROAD & DRAINAGE WORKS 20.6 (TYPE A MATERIAL AS PER VICROADS STANDARD SPECIFICATION 204) AND COMPACTED TO 98% ASHO IN 150mm LAYERS.
31. PAVEMENT DEPTH MAY NOT BE ALTERED WITHOUT WRITTEN APPROVAL FROM CITY OF WHITTLESEA DEVELOPMENT ENGINEERING UNIT PRIOR TO THE COMMENCEMENT OF WORKS. ADDITIONAL COSTS WILL NOT BE CONSIDERED POST TENDER.
32. THE CONTRACTOR IS TO ORGANISE AND PAY FOR TESTING OF PAVEMENT BASE COURSE MATERIAL AND FINAL LAYER OF CRUSHED ROCK. A COPY OF RESULTS IS TO BE FORWARDED TO THE DIRECTOR OF ENGINEERING OR HIS REPRESENTATIVE. THE RESULTS MUST MEET THE REQUIREMENTS OF THE CITY OF WHITTLESEA SPECIFICATION BEFORE ANY FURTHER WORKS ARE REQUIRED.
33. THE CONTRACTOR MUST COMPLETE A LEVEL CHECK BETWEEN ALL TBM'S TO VERIFY LEVEL VALUES BEFORE COMMENCEMENT OF WORKS. ALL TBM,s AND CONTROL POINTS ARE TO BE MAINTAINED AND PROTECTED AT ALL TIMES DURING CONSTRUCTION. SHOULD ANY MARKS BE DISTURBED, THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE DEVELOPER'S CONSULTANT TO ARRANGE RE-INSTATEMENT AT THE CONTRACTORS EXPENSE.

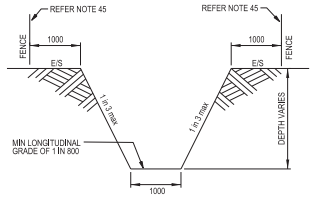




34. PRIOR TO COMMENCEMENT OF WORKS, THE CONTRACTOR MUST SUBMIT A SMP TO THE DEVELOPER'S CONSULTANT FOR APPROVAL. THE CONTRACTOR MUST COMPLY WITH THE RECOMMENDATIONS OF THE ENVIRONMENT PROTECTION AUTHORITY PUBLICATION No.275 "CONSTRUCTION TECHNIQUES FOR SEDIMENT POLLUTION CONTROL" AND MW SITE ENVIRONMENTAL MANAGEMENT POLICY 3.8.2. APPROPRIATE SILTATION CONTROL IS TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION AND MAINTENANCE PERIOD OF THE WORKS. THE SMP SHALL BE APPROVED BY CITY OF WHITTLESEA DEVELOPMENT ENGINEERING UNIT PRIOR TO THE COMMENCEMENT OF WORKS.
35. ALL FOOTPATHS IN ROADS TO BE OFFSET 50mm FROM PROPERTY BOUNDARY. FOOTPATHS CONSTRUCTED ABOVE EXISTING LEVEL TO BE CONSTRUCTED ON APPROVED FILL (TO AS-3798) OF F.C.R. INTO NATURAL GROUND.
36. PRIOR TO COMMENCEMENT OF WORKS TREE PROTECTION ZONES (TPZ) ARE TO BE INSTALLED AS SPECIFIED IN THE ANNOTATED DETAILS FORMING PART OF THE PLANNING PERMIT TO TREES NOTED 'TO BE RETAINED'. THIS INCLUDES THE FOLLOWING
- RING LOCK WIRE MESH MINIMUM 1.20m HIGH (STD DRG SDL.2.02)
- MAIN POSTS 100mm TREATED PINE (TP), MINIMUM 1.80m HIGH
- INTERMEDIATE POSTS STEEL STAR PICKETS (SP), MINIMUM 1.80m HIGH
- THE CORNER POSTS ARE TO BE TP WITH TP STAYS
- EVERY THIRD POST TO BE TP
- SP TO BE PLACED INTERMEDIATELY BETWEEN THE TP AT MAX 3.0m INTERVALS
- THE RING LOCK MESH TO ENCIRCLE THE STRUCTURE AND BE FIRMLY SECURED AT EACH POST
- POSTS MUST BE SUNK INTO THE GROUND BY 450mm (THERE IS TO BE NO CONCRETE TO SECURE POSTS AS THIS WILL AFFECT pH LEVELS).
- HIGH VISIBILITY HAZARD MARKER TAPE SECURELY FIXED TO TOP OF WIRE MESH FENCE WITH WIRE TIES
- THE TREE PROTECTION ZONE IS TO BE CLEARLY SIGN POSTED IN ACCORDANCE WITH CONDITION 20 OF THE PLANNING PERMIT (STD DRG SDL.2.03)

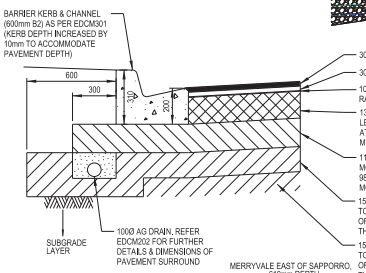
NO EXCAVATION SHALL BE CARRIED OUT WITHIN 5.0m OF ANY TREE UNTIL APPROVAL IS GIVEN BY THE ENGINEER.

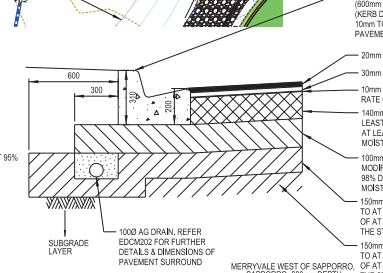
37. PROVIDE 1.8m HIGH PALING FENCE ALONG ANY COMMON BOUNDARY BETWEEN A LOT AND MUNICIPAL RESERVE. FENCING TO BE ERECTED BY THE DEVELOPER (OR OWNER) AT NO COST TO COUNCIL.PALINGS TO BE ON THE RESERVE SIDE AND CONSTRUCTED IN ACCORDANCE WITH COUNCIL STANDARD DRAWING SDL.3.09 & SDL.3.10.
38. VEHICULAR EXCLUSION FENCING TO BE PROVIDED ALONG THE ROAD FRONTAGES OF ALL RESERVES. REFER LANDSCAPE PLANS FOR FENCE DETAILS. FENCING TO BE CONSTRUCTED AS PART OF LANDSCAPE WORKS.
39. PROVIDE TEMPORARY SAFETY BARRIER FENCE (FARM FENCE AS PER MW STD. DWG. 7251/8/203) ALONG EDGE OF OUTFALL DRAINS. SAFETY FENCE TO REMAIN UNTIL PERMANENT UNDERGROUND DRAINAGE IS INSTALLED.
40. EXISTING DAM OR WATERCOURSES TO BE EXCAVATED TO A FIRM BASE AND BACKFILLED AS SPECIFIED. DEVELOPER'S CONSULTANT TO BE NOTIFIED WHEN THE DAM OR WATERCOURSES ARE EXCAVATED TO A FIRM BASE. NO FILLING IS TO BE PLACED PRIOR TO DAMS BEING INSPECTED AND LEVELS TAKEN. BACKFILLING IS TO BE CARRIED OUT TO THE SATISFACTION OF THE COUNCIL SUPERVISING ENGINEER.
41. TACTILE GROUND SURFACE INDICATORS (TGSI) ARE TO BE INSTALLED WHERE SHOWN IN ACCORDANCE WITH COUNCIL STD DRG SD320 AND AS1428.
42. A BUILDING PERMIT MUST BE OBTAINED FOR ANY STRUCTURAL/RETAINING WALL EXCEEDING 1.0m IN HEIGHT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA, A COPY OF BUILDING PERMITS AND 'CERTIFICATE OF COMPLIANCE - CONSTRUCTION' TO BE SUBMITTED TO COUNCIL PRIOR TO STATEMENT OF COMPLIANCE.
43. ALL STRUCTURAL WORKS MUST BE SUPERVISED BY A QUALIFIED STRUCTURAL ENGINEER.



TEMPORARY OUTFALL CHANNEL DETAIL

(Dimensions in millimetres) (N.T.S.)



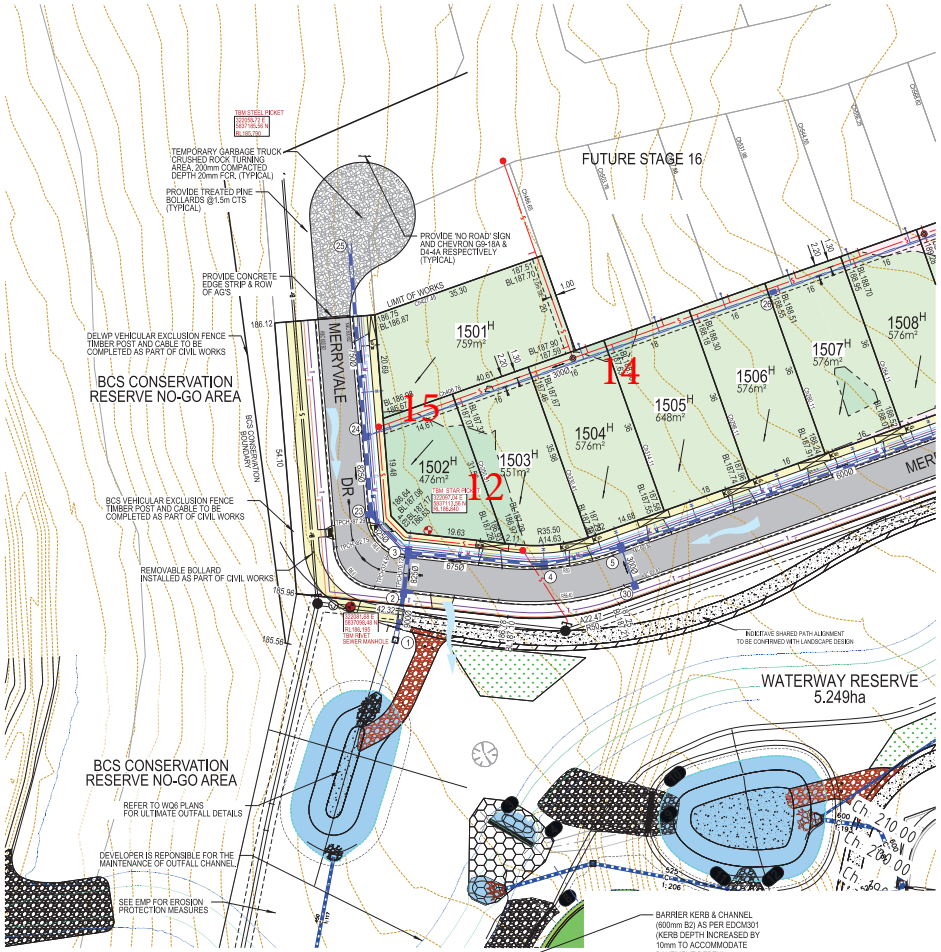


Approximate field density test location

REFER TO EDCM202 FOR FURTHER AG, SERVICE CONDUIT AND TRENCH BACKFILL DETAILS

PAVEMENT COMPOSITION

(Dimensions in millimetres) (N.T.S.)



AMENDMENTS						
				MELWAY REF.	388-C-10	
				SURVEY	BPD	
				DESIGN	RGW	
A	28.07.22	CONSTRUCTION ISSUE		DRAWN	RGW	
VER	DATE	REMARKS		CHECKED		

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

RATHDOWNE ESTATE STAGE 15

SCALE	AS SHOWN
DATUM	AHD
DATE	SEP'21
MUNICIPALITY	WHITTLESEA
REFERENCE	9365E/15
SHEET	2 OF 12 B

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COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES
6 - 8 Rose Avenue, Croydon 3136

		Job No	22666
		Report No	22666/R001
		Date Issued	30/08/23
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	RATHDOWNE - STAGE 15	*Date tested*	13/06/23
Location	WOLLERT	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	11:59

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*	2.05	2.13	2.03	2.04	2.11	2.05
Field moisture content	*%*	15.4	17.7	22.0	16.9	17.4	23.8

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*	2.10	2.10	2.08	2.09	2.12	2.09
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	18.0	19.5	24.0	19.0	17.0	26.5

Moisture Variation From Optimum Moisture Content		2.5% dry	2.0% dry	2.0% dry	2.0% dry	0.0%	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**	**101.5**	**98.0**	**97.5**	**100.0**	**98.0**

Material description

No 1 - 6 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	22666
		Report No	22666/R002
		Date Issued	30/08/23
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	RATHDOWNE - STAGE 15	*Date tested*	14/06/23
Location	WOLLERT	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 12:57

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*	1.95	1.94	2.02	1.92	2.02	2.00
Field moisture content	*%*	25.8	26.2	24.3	23.6	23.0	20.7

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*	2.01	1.99	2.00	2.01	2.09	2.06
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	27.0	28.0	26.0	25.5	25.5	23.0

Moisture Variation From Optimum Moisture Content		1.0% dry	1.5% dry	1.5% dry	2.0% dry	2.0% 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})	*%*	**97.0**	**97.5**	**101.0**	**96.0**	**97.0**	**97.0**

Material description

No 7 - 12 Clay Fill

AVRLOT HILF V1.10 MAR 13

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

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES
6 - 8 Rose Avenue, Croydon 3136

		Job No	22666
		Report No	22666/R003
		Date Issued	16/08/23
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	RATHDOWNE - STAGE 15	*Date tested*	15/06/23
Location	WOLLERT	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 14:00

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*	2.01	2.08	2.06	-	-	-
Field moisture content	*%*	27.7	23.7	24.4	-	-	-

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*	1.99	2.08	2.07	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	30.5	26.0	24.0	-	-	-

Moisture Variation From Optimum Moisture Content		2.5% dry	2.0% 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})	*%*	**101.0**	**100.0**	**99.5**	**-**	**-**	**-**

Material description

No 13 - 15 Clay Fill

Approved Signatory : Justin Fry