



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

28th April 2020

Our Reference: 19768:NB694

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
EYNESBURY – STAGE 11A6 (EYNESBURY)**

Please find attached our Report No's 19768/R001 and 19768/R002 which relate to the field density testing that was conducted within the filled allotments of the above subdivision. The level 1 inspections and associated field density testing commenced in February 2020 and was completed in April 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.

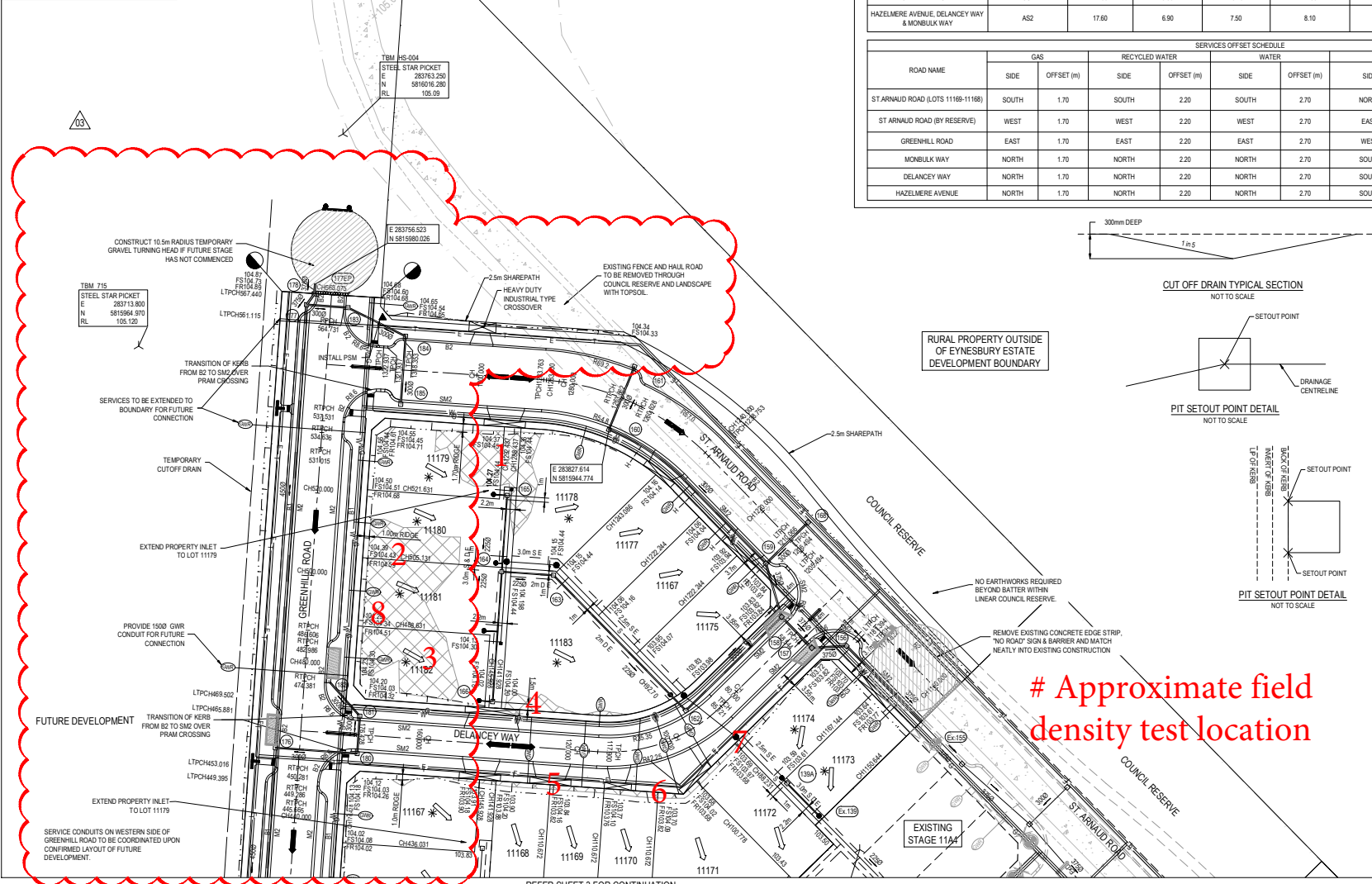
Civil Geotechnical Services

Nick Brock

FIGURE 1 (1 of 2)

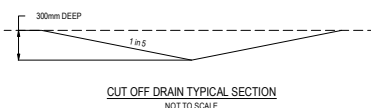
NOTE:

THIS DRAWING HAS BEEN CONVERTED FROM SMEC DESIGN DRAWINGS TO ARCADIS CONSTRUCTION DRAWINGS AT THE REQUEST OF MELTON CITY COUNCIL. THE ORIGINAL PRESENTATION HAS NOT BEEN ALTERED IN ORDER TO MAINTAIN CONSISTENCY THROUGHOUT THE ENTIRE DRAWING PACKAGE.

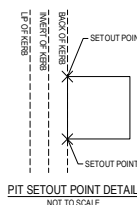
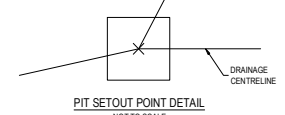


ROAD NAME	ROAD CLASSIFICATION	RESERVE WIDTH (m)	ROAD WIDTH (m)			KERB TYPE		VERGE WIDTH (m)	
			LIP to LIP	INV to INV	BACK to BACK	NTHWEST	STHEAST	NTHWEST	STHEAST
ST ARNAUD ROAD (LOTS 11169-11168)	CS1	24.00	10.00	10.60	11.05	B2	SM2	6.40	6.40
ST ARNAUD ROAD (BY RESERVE)	CS1	19.50	10.00	10.60	11.05	SM2	B2	6.40	2.05
GREENHILL ROAD	CS1	24.00	9.80	10.40	11.00	B2/M2	B2/M2	6.65	6.65
HAZELMERE AVENUE, DELANCEY WAY & MONBULK WAY	AS2	17.60	6.90	7.50	8.10	SM2	SM2	4.75	4.75

ROAD NAME	SIDE	GAS			RECYCLED WATER		WATER		ELECTRICITY		TELSTRA	
		OFFSET (m)	DEPTH (m)	DEPTH (m)	DEPTH (m)	DEPTH (m)	DEPTH (m)	DEPTH (m)	DEPTH (m)	DEPTH (m)	DEPTH (m)	
ST ARNAUD ROAD (LOTS 11169-11168)	SOUTH	1.70	1.70	2.20	2.20	SOUTH	2.70	NORTH	2.30	NORTH	1.80	
ST ARNAUD ROAD (BY RESERVE)	WEST	1.70	1.70	2.20	2.20	WEST	2.70	EAST	0.90	EAST	0.40	
GREENHILL ROAD	EAST	1.70	1.70	2.20	2.20	EAST	2.70	WEST	2.30	WEST	1.80	
MONBULK WAY	NORTH	1.70	1.70	2.20	2.20	NORTH	2.70	SOUTH	2.30	SOUTH	1.80	
DELANCEY WAY	NORTH	1.70	1.70	2.20	2.20	NORTH	2.70	SOUTH	2.30	SOUTH	1.80	
HAZELMERE AVENUE	NORTH	1.70	1.70	2.20	2.20	NORTH	2.70	SOUTH	2.30	SOUTH	1.80	



RURAL PROPERTY OUTSIDE OF EYNEBURY ESTATE DEVELOPMENT BOUNDARY



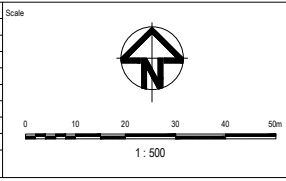
Approximate field density test location

LEGEND - LAYOUT PLAN

- STORMWATER DRAIN, PIT & PROPERTY INLET
- SWALE DRAIN
- SEWER & MAINTENANCE STRUCTURES
- HOUSE DRAIN
- SERVICE CONDUITS
- TACTILE PAVERS
- EXISTING ELECTRICITY (UNDERGROUND)
- EXISTING ELECTRICITY (OVERHEAD)
- EXISTING GAS
- EXISTING TELSTRA
- EXISTING WATER
- EXISTING RECYCLED WATER
- EXISTING STORMWATER DRAIN
- EXISTING SEWER
- EXISTING HOUSE DRAIN
- EXISTING SWALE DRAIN
- EXISTING SURFACE LEVEL
- FINISHED BUILDING LINE LEVEL
- FINISHED RIDGE LINE LEVEL
- TOP OF RETAINING WALL
- BOTTOM OF RETAINING WALL
- RETAINING WALL
- ZERO LOT LINES
- PAVEMENT TREATMENT
- STRUCTURAL FILL > 200mm DEEP
- EX. STRUCTURAL FILL > 200mm DEEP
- DIRECTION OF FALL
- OVERLAND FLOW
- ALLOTMENT TO BE GRADED EVENLY IN DIRECTION OF FALL TO LEVELS INDICATED
- CONCRETE EDGE STRIP WITH SUBSOIL DRAIN
- NO ROAD SIGN & BARRIER
- LIMIT OF WORKS
- EXISTING TREE TO BE REMOVED
- PERMANENT SURVEY MARK
- TEMPORARY BENCH MARK
- PROPOSED DRIVEWAY

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

Issue	Description	By	Chk	PM	Date
03	SHARED PATH & GREENHILL ROAD SERVICES LAYOUT REVISED	SH	ZS	JM	06.06.19
02	TACTILE LAYOUT UPDATED	HM	ZS	JM	08.03.19
01	ISSUED FOR CONSTRUCTION	RT	ZS	JM	08.02.19



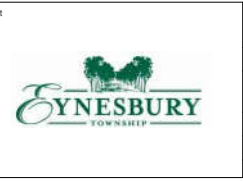
Scale: 1:500

Surveyor: _____

Client: _____

Architect: _____

Filename: 0520E-11A6-02.dwg



FOR CONSTRUCTION
 ISSUED FOR CONSTRUCTION

Approved: _____

Original Issue Signatures: _____

Original Size: **A1**

Height: AHD

Datum: MGA

Grid: _____

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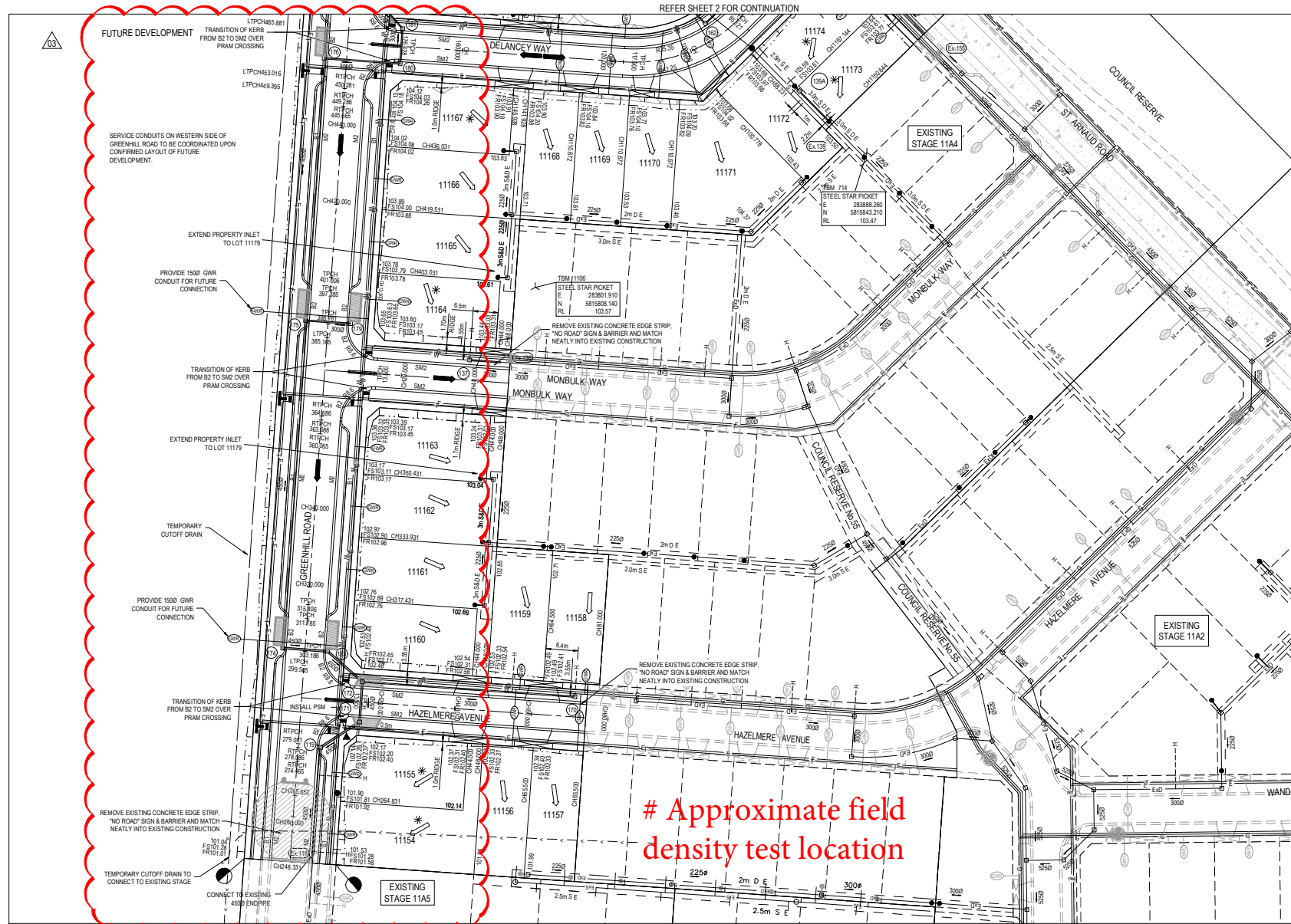
Project: **EYNEBURY TOWNSHIP**
STAGE 11A6
CITY OF MELTON
ROADWORKS AND DRAINAGE

Title: **LAYOUT PLAN - 1**

ARCADIS
 Arcadis Australia Pacific Pty Limited
 Level 32, 140 William Street
 Melbourne VIC 3000
 ASN: TS 104 465 288
 Tel No: +61 3 8623 4000
 www.arcadis.com

Drawing No: **02** Project No: **0520E-11A6** Issue: **03**

FIGURE 1 (2 of 2)

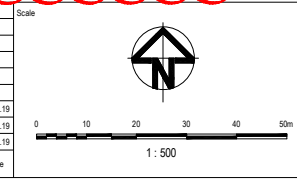


Approximate field density test location

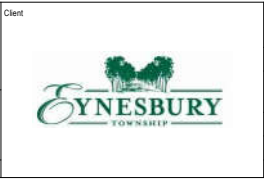
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DIAL 1100 BEFORE YOU DIG
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Issue	Description	By	Chk	PM	Date
03	GREENHILL ROAD SERVICES LAYOUT REVISED	SH	ZS	JM	06.06.19
02	TACTILE LAYOUT UPDATED	HM	ZS	JM	08.03.19
01	ISSUED FOR CONSTRUCTION	RT	ZS	JM	08.02.19



Surveyor
Architect
Client
EYNEBURY TOWNSHIP



Status	FOR CONSTRUCTION ISSUED FOR CONSTRUCTION
Approved	Original Issue Signatures
Scales	1:500
Original Size	A1
Height Datum	AHD
Grid	MGA

Project
**EYNEBURY TOWNSHIP
STAGE 11A6
CITY OF MELTON
ROADWORKS AND DRAINAGE**

Title
LAYOUT PLAN - 2

ARCADIS
Arcadis Australia Pacific Pty Limited
Level 32, 140 William Street
Melbourne VIC 3000
ABN 78 104 485 289
Tel No: +61 3 8623 4000
www.arcadis.com

Drawing No. **03** Project No. **0520E-11A6** Issue **03**



COMPACTION ASSESSMENT

Job No 19768
 Report No 19768/R001
 Date Issued 10/03/2020

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 11A6	Date tested	14/02/20
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:47
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	1	2	-	-	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1				
Approximate depth below FSL						
Measurement depth	mm	175	175	-	-	-
Field wet density	t/m ³	1.80	1.75	-	-	-
Field moisture content	%	17.5	17.7	-	-	-

Test procedure AS 1289.5.7.1

Test No	1	2	-	-	-	-
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	-	-	-
Peak Converted Wet Density	t/m ³	1.88	1.80	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	20.0	20.0	-	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	-	-	-	-
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Density Ratio (R _{HD})	%	96.0	97.0	-	-	-
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Material description

No 1 - 2 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 19768
 Report No 19768/R002
 Date Issued 28/04/2020

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	EYNESBURY - STAGE 11A6	Date tested	18/04/20
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:30
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		3	4	5	6	7	8
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/m ³	1.73	1.74	1.70	1.68	1.74	1.70
Field moisture content	%	27.5	28.7	28.1	32.6	32.0	32.2

Test procedure AS 1289.5.7.1

Test No		3	4	5	6	7	8
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/m ³	1.77	1.77	1.74	1.73	1.77	1.75
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	29.5	30.5	30.5	34.5	34.0	34.0

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

No 3 - 8 Clay Fill

AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry