



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

26th February 2020

Our Reference: 19764:NB678

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
EYNESBURY – STAGE 11A2 (EYNESBURY)**

Please find attached our Report No 19764/R001 which relates 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 was performed in February 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).

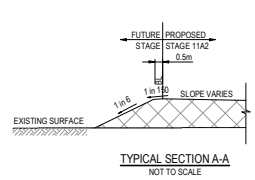
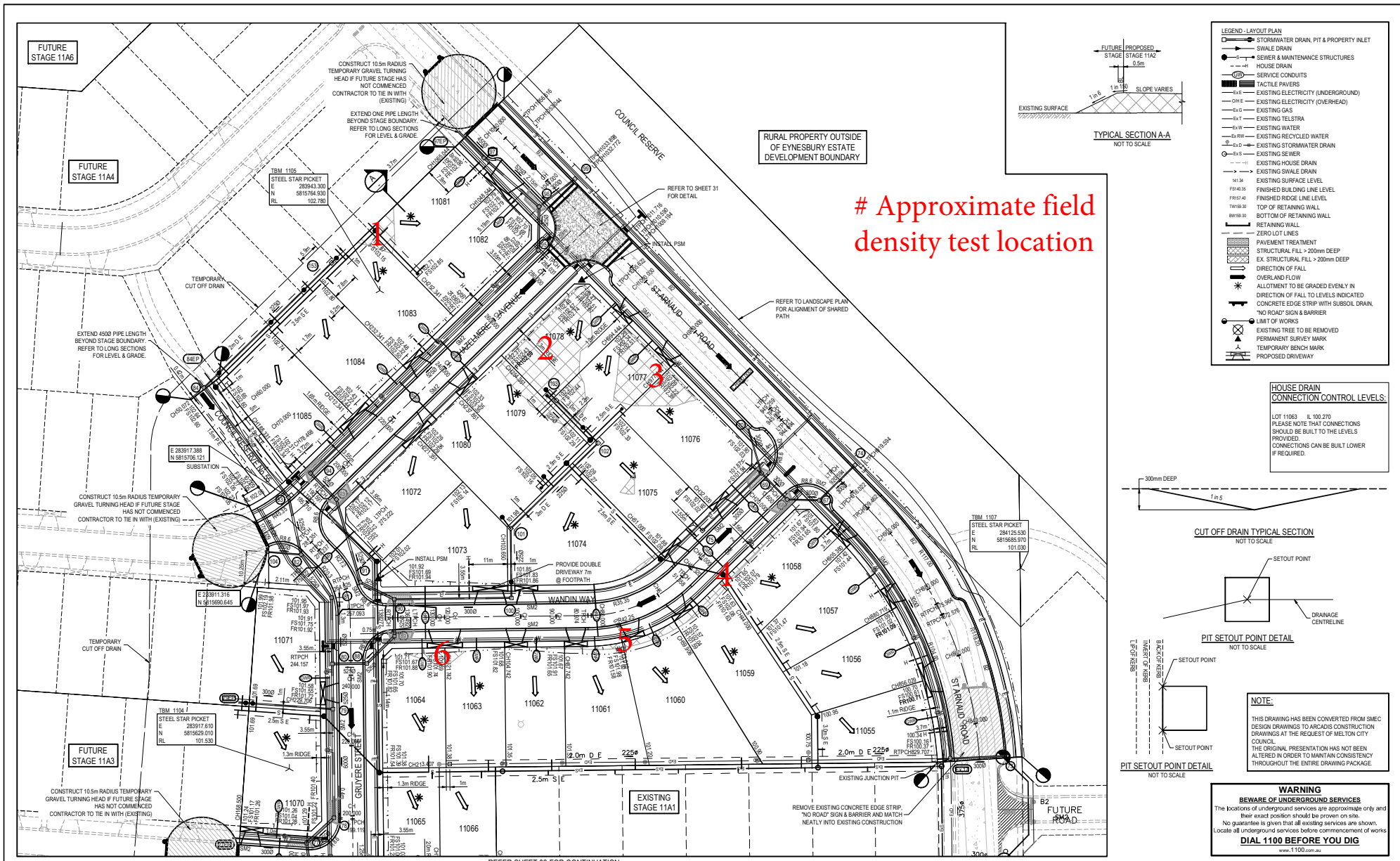
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

A handwritten signature in blue ink, appearing to read 'Nick Brock', is written over a faint circular stamp.

Nick Brock

FIGURE 1 (1 of 2)



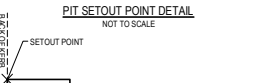
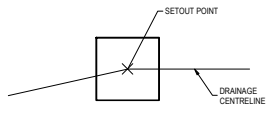
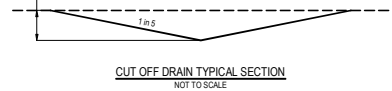
LEGEND - LAYOUT PLAN

- 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 TEL/STRA
- EXISTING WATER
- EXISTING RECYCLED WATER
- EXISTING STORMWATER DRAIN
- EXISTING SEWER
- 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

Approximate field density test location

HOUSE DRAIN CONNECTION CONTROL LEVELS:

LOT 11063 IL 100.270
PLEASE NOTE THAT CONNECTIONS SHOULD BE BUILT TO THE LEVELS PROVIDED. CONNECTIONS CAN BE BUILT LOWER IF REQUIRED.



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.

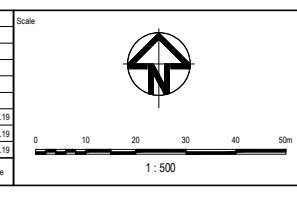
WARNING

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	UPDATED TO SHOW UTILITIES	SH	ZS	JM	15.04.19
02	TACTILE LAYOUT UPDATED	HM	ZS	JM	08.03.19
01	ISSUED FOR CONSTRUCTION	RT	ZS	JM	01.02.19



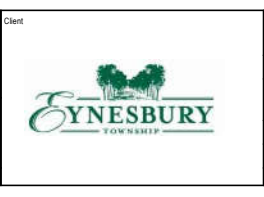
Scale: 1 : 500

Surveyor: _____

Client: _____

Architect: _____

Filename: 0520E-11A2-02.dwg



FOR CONSTRUCTION
ISSUED FOR CONSTRUCTION

Approved: _____

Scales: 1:500 Original Issue Signatures

Original Size: A1
Designed: Z STROGOSZ
Height: AHD
Datum: MGA
Grid: _____

Drawn: R.TAI
Project Manager: J.MUNRO
Copyright reserved

Project: EYNESBURY TOWNSHIP
STAGE 11A2
CITY OF MELTON
ROADWORKS AND DRAINAGE

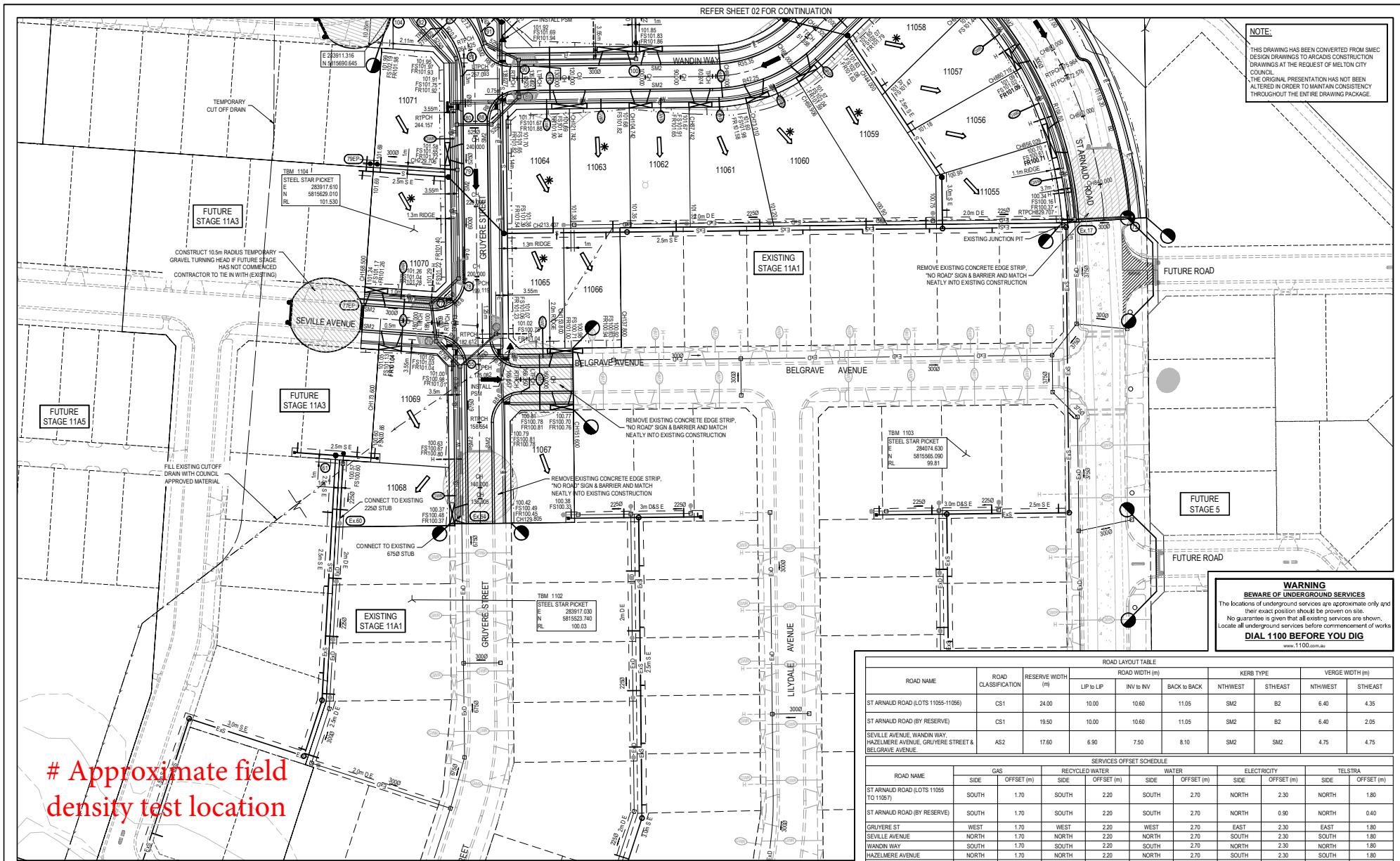
Title: LAYOUT PLAN - 1

ARCADIS

Arcadis Australia Pacific Pty Limited
Level 32, 140 William Street
Melbourne VIC 3000
ABN: 75 104 485 289
Tel No: +61 3 8623 4000
www.arcadis.com

Drawing No: 02
Project No: 0520E-11A2
Issue: 03

FIGURE 1 (2 of 2)



Approximate field density test location

ROAD NAME	ROAD CLASSIFICATION	RESERVE WIDTH (m)	ROAD LAYOUT TABLE			KERB TYPE		VERGE WIDTH (m)	
			LIP to LIP	INV to INV	BACK to BACK	NTHWEST	STEAST	NTHWEST	STEAST
ST ARNAUD ROAD (LOTS 11055-11056)	CS1	24.00	10.00	10.60	11.05	SM2	82	6.40	4.35
ST ARNAUD ROAD (BY RESERVE)	CS1	19.50	10.00	10.60	11.05	SM2	82	6.40	2.05
SEVILLE AVENUE, WANDIN WAY, HAZELMERE AVENUE, GRUYERE STREET & BELGRAVE AVENUE	AS2	17.60	6.90	7.50	8.10	SM2	SM2	4.75	4.75

ROAD NAME	GAS		RECYCLED WATER		WATER		ELECTRICITY		TELSTRA	
	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)
ST ARNAUD ROAD (LOTS 11055 TO 11057)	SOUTH	1.70	SOUTH	2.20	SOUTH	2.70	NORTH	2.30	NORTH	1.80
ST ARNAUD ROAD (BY RESERVE)	SOUTH	1.70	SOUTH	2.20	SOUTH	2.70	NORTH	0.90	NORTH	0.40
GRUYERE ST	WEST	1.70	WEST	2.20	WEST	2.70	EAST	2.30	EAST	1.80
SEVILLE AVENUE	NORTH	1.70	NORTH	2.20	NORTH	2.70	SOUTH	2.30	SOUTH	1.80
WANDIN WAY	SOUTH	1.70	SOUTH	2.20	SOUTH	2.70	NORTH	2.30	NORTH	1.80
HAZELMERE AVENUE	NORTH	1.70	NORTH	2.20	NORTH	2.70	SOUTH	2.30	SOUTH	1.80
BELGRAVE AVE	NORTH	1.70	NORTH	2.20	NORTH	2.70	SOUTH	2.30	SOUTH	1.80

<table border="1"> <tr> <th>Issue</th> <th>Description</th> <th>By</th> <th>Chk</th> <th>PM</th> <th>Date</th> </tr> <tr> <td>03</td> <td>UPDATED TO SHOW UTILITIES</td> <td>SH</td> <td>ZS</td> <td>JM</td> <td>15.04.19</td> </tr> <tr> <td>02</td> <td>TACTILE LAYOUT UPDATED</td> <td>HM</td> <td>ZS</td> <td>JM</td> <td>08.03.19</td> </tr> <tr> <td>01</td> <td>ISSUED FOR CONSTRUCTION</td> <td>RT</td> <td>ZS</td> <td>JM</td> <td>01.02.19</td> </tr> </table>	Issue	Description	By	Chk	PM	Date	03	UPDATED TO SHOW UTILITIES	SH	ZS	JM	15.04.19	02	TACTILE LAYOUT UPDATED	HM	ZS	JM	08.03.19	01	ISSUED FOR CONSTRUCTION	RT	ZS	JM	01.02.19	<p>Scale</p> <p>1:500</p>	<p>Surveyor</p> <p>Client</p>	<p>Status</p> <p>FOR CONSTRUCTION ISSUED FOR CONSTRUCTION</p> <p>Approved</p> <p>Scales</p> <p>1:500</p> <p>Original Issue Signatures</p> <p>Original Size</p> <p>A1</p> <p>Weight</p> <p>AHD</p> <p>Datum</p> <p>Grid</p> <p>MGA</p>	<p>Project</p> <p>EYNEBURY TOWNSHIP STAGE 11A2 CITY OF MELTON ROADWORKS AND DRAINAGE</p> <p>Title</p> <p>LAYOUT PLAN - 2</p>	<p>Arcadis Australia Pacific Pty Limited Level 32, 140 William Street Melbourne VIC 3000 ABN 75 104 485 288 Tel No: +61 3 8623 4000 www.arcadis.com</p> <p>Drawing No. 03 Project No. 0520E-11A2 Issue 03</p>
Issue	Description	By	Chk	PM	Date																								
03	UPDATED TO SHOW UTILITIES	SH	ZS	JM	15.04.19																								
02	TACTILE LAYOUT UPDATED	HM	ZS	JM	08.03.19																								
01	ISSUED FOR CONSTRUCTION	RT	ZS	JM	01.02.19																								



COMPACTION ASSESSMENT

Job No 19764
 Report No 19764/R001
 Date Issued 26/02/2020

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 11A2	Date tested	14/02/20
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:36
---------	------------	-----------------	--------	-------------

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 ³	1.75	1.76	2.05	1.86	1.91
Field moisture content	%	16.8	17.6	17.8	18.2	19.5

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 ³	1.77	1.81	2.11	1.94	1.99
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	19.0	19.5	20.5	20.0	22.0

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

Density Ratio (R _{HD})	%	98.5	97.5	97.5	96.0	96.0	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