



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

21st July 2014

Our Reference: 14171:JHF807

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
AMRSTRONG, MT DUNEED (STAGE 10) – MOUNT DUNEED**

Please find attached our Report No 14171/R001 that 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 mid May 2014.

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 inspections and testing was performed by an experienced geotechnician 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).

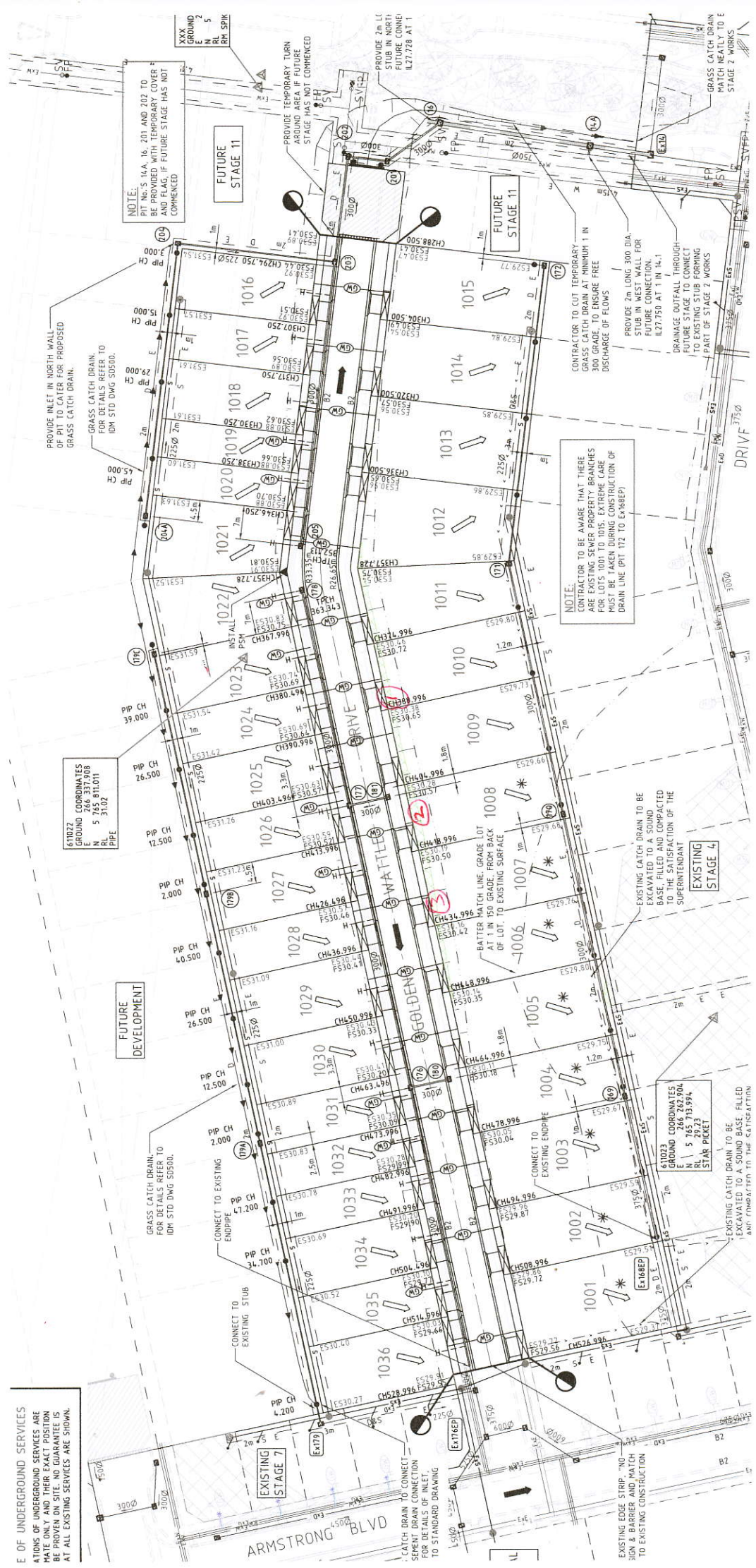
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

A handwritten signature in black ink, appearing to read 'Justin Fry'.

Justin Fry

FIGURE 1



APPROXIMATE FIELD OENSI M LOCATION



COMPACTION ASSESSMENT

Job No 14171
 Report No 14171/R001
 Date Issued 30/05/14

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by DK
 Date tested 19/05/14
 Checked by JHF

Client WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)
 Project ARMSTRONG, MT DUNED - STAGE 10
 Location MOUNT DUNED

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 11:46
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	1	2	3	-	-	-
<i>Location</i>	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
<i>Approximate depth below FSL</i>						
<i>Measurement depth</i> mm	175	175	175	-	-	-
<i>Field wet density</i> t/m ³	2.02	1.92	1.93	-	-	-
<i>Field moisture content</i> %	23.1	24.4	24.9	-	-	-

Test procedure AS 1289.5.7.1

Test No	1	2	3	-	-	-
<i>Compactive effort</i>	Standard					
<i>Oversize rock retained on sieve</i> mm	19.0	19.0	19.0	-	-	-
<i>Percent of oversize material</i> wet	0	0	0	-	-	-
<i>Peak Converted Wet Density</i> t/m ³	1.97	1.90	1.90	-	-	-
<i>Adjusted Peak Converted Wet Density</i> t/m ³	-	-	-	-	-	-
<i>Optimum Moisture Content</i> %	23.5	27.0	27.0	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	0.0%	2.0% dry	2.0% dry	-	-	-
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Density Ratio (R_{HD}) %	102.5	101.5	102.0	-	-	-
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Material description

No 1 - 3 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