

# CIVIL GEOTECHNICAL SERVICES ABN 26 474 013 724

PO Box 678 Croydon Vic 3136 Telephone: 9723 0744 Facsimile: 9723 0799

4th February 2014

Our Reference: 13424:JHF754

Winslow Constructors Pty Ltd 50 Barry Road CAMPBELLFIELD VIC 3061

Dear Sirs,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING ASTON ESTATE (STAGE 9) – CRAIGIEBURN

Please find attached our Report Nos 13424/R001 to 13424/R003 that 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 late November 2013.

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.

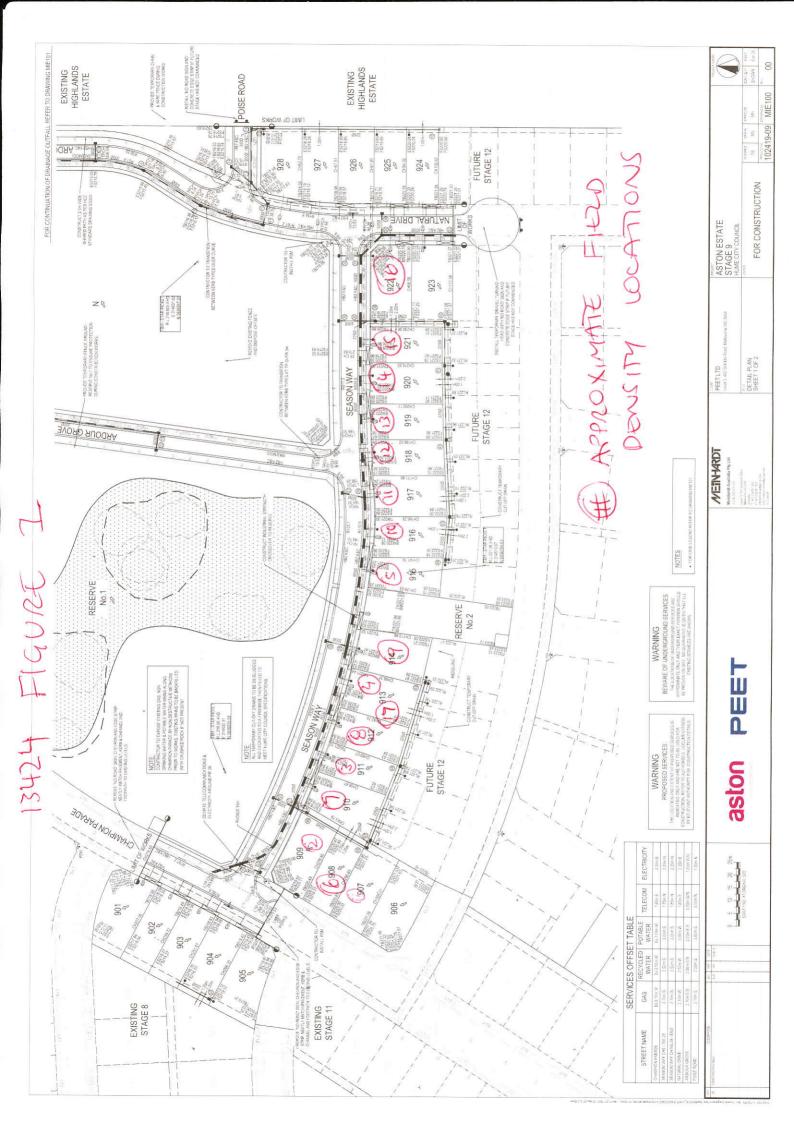
The site inspections and testing was performed by an experienced geotechnician from this office. Any areas that were deemed unsatisfactory were reworked and retested under their supervision. The testing was performed to the relevant Australian Standards and the accompanying test reports carry NATA endorsement. 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

Justin Fry





Location

# **COMPACTION ASSESSMENT**

Job No 13424 CIVIL GEOTECHNICAL SERVICES 13424/R001 Report No Date Issued 6 - 8 Rose Avenue, Croydon 3136 30/11/13 WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) Client Tested by AG 25/11/13 Project ASTON - STAGE 9 Date tested

Feature EARTHWORKS Layer thickness 200 mm Time: 09:28

Test procedure AS 1289.2.1.1 & 5.8.1

**CRAIGIEBURN** 

Test No		1	2	3	4	5	-
Location							
		REFER	REFER	REFER	REFER	REFER	
		ТО	ТО	ТО	ТО	TO	
		FIGURE 1					
Approximate depth below FSL		-	-	-	-	-	-
Measurement depth	mm	175	175	175	175	175	-
Field wet density	t/m³	1.88	1.81	1.78	1.90	1.91	-
Field moisture content	%	29.3	29.6	25.1	24.9	25.0	-

Test procedure AS 1289.5.7.1

Test No		1	2	3	4	5	-
Compactive effort				Star	ndard		
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/m³	1.83	1.90	1.88	1.90	1.86	-
Adjusted Peak Converted Wet Density	t/m³	-	-	-	-	-	-
Optimum Moisture Content	%	29.5	27.0	26.5	25.5	26.0	_

Moisture Variation From	0.5%	2.5%	1.5%	0.5%	1.0%	-
Optimum Moisture Content	dry	wet	dry	dry	dry	

Density Ratio (R <sub>HD</sub> )	%	103.0	95.0	95.0	100.0	103.0	-

Material description

No 1 - 5 Clay Fill



Approved Signatory: Justin Fry

AVRLOT HILF V1.10 MAR 13

Checked by

JHF



# **COMPACTION ASSESSMENT**

 CIVIL GEOTECHNICAL SERVICES
 Job No
 13424

 6 - 8 Rose Avenue, Croydon 3136
 Report No
 13424/R002

 Date Issued
 09/12/13

ClientWINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)Tested byAGProjectASTON - STAGE 9Date tested27/11/13LocationCRAIGIEBURNChecked byJHF

Feature EARTHWORKS Layer thickness 200 mm Time: 10:30

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		6	7	8	9	10	11
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		TO	ТО	ТО	TO	TO	TO
		FIGURE 1					
Approximate depth below FSL		-	-	-	-	-	-
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m³	2.07	2.02	2.09	2.09	1.97	1.93
Field moisture content	%	15.9	19.4	18.9	17.2	20.9	22.7

Test procedure AS 1289.5.7.1

Test No		6	7	8	9	10	11
Compactive effort				Star	ndard		
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	2.03	2.00	1.99	2.01	2.02	1.97
Adjusted Peak Converted Wet Density	t/m³	-	-	-	-	-	-
Optimum Moisture Content	%	18.0	20.0	20.0	19.0	21.0	22.0

Moisture Variation From	2.0%	0.5%	1.0%	2.0%	0.0%	0.5%
Optimum Moisture Content	dry	dry	dry	dry		wet

Density Ratio (R <sub>HD</sub> )	%	102.5	101.5	105.0	104.5	98.0	98.0

Material description

No 6 - 11 Clay Fill



Approved Signatory : Justin Fry

AVRLOT HILF V1.10 MAR 13



# **COMPACTION ASSESSMENT**

 CIVIL GEOTECHNICAL SERVICES
 Job No
 13424

 6 - 8 Rose Avenue, Croydon 3136
 Date Issued
 09/12/13

 Client
 WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)
 Tested by
 AG

Project ASTON - STAGE 9

Location CRAIGIEBURN

AG

Date tested by AG

Checked by JHF

Feature EARTHWORKS Layer thickness 200 mm Time: 14:10

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		12	13	14	15	16	17
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		TO	TO	TO	TO	TO	TO
		FIGURE 1					
Approximate depth below FSL		-	-	-	-	-	-
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m³	1.85	1.96	1.94	2.02	1.97	1.96
Field moisture content	%	22.4	21.0	20.4	21.9	21.4	22.5

Test procedure AS 1289.5.7.1

1001 p1000 da10 110 1200101111							
Test No		12	13	14	15	16	17
Compactive effort				Star	ndard		
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	1.91	1.88	1.95	1.93	1.87	1.88
Adjusted Peak Converted Wet Density	t/m³	•	-	-	-	-	-
Optimum Moisture Content	%	24.0	23.5	23.0	23.0	24.5	25.0

Moisture Variation From	2.0%	2.5%	2.5%	1.0%	3.0%	2.5%
Optimum Moisture Content	dry	dry	dry	dry	dry	dry

Density Ratio (R <sub>HD</sub> )	%	97.0	104.0	99.5	104.5	105.5	104.0

Material description

No 12 - 17 Clay Fill



Approved Signatory : Justin Fry

AVRLOT HILF V1.10 MAR 13



#### FILL CERTIFICATE

PROJECT: Lot No 901 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_901

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 901 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

# **LIMITATIONS**

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 906 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424 906

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 906 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

# **LIMITATIONS**

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 907 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_907

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 907 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

#### LIMITATIONS

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 908 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_908

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 908 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

#### LIMITATIONS

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 909 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_909

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 909 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

#### LIMITATIONS

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 910 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_910

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 910 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

# **LIMITATIONS**

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 911 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_911

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 911 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

#### LIMITATIONS

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 912 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_912

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 912 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

# **LIMITATIONS**

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 913 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_913

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 913 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

#### LIMITATIONS

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 914 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_914

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 914 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

#### LIMITATIONS

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 915 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_915

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 915 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

#### LIMITATIONS

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 916 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_916

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 916 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

# **LIMITATIONS**

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 917 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_917

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 917 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

#### LIMITATIONS

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 918 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_918

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 918 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

#### LIMITATIONS

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 919 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_919

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 919 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

#### LIMITATIONS

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 920 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

04/02/14

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_920

# **SUMMARY**

DATE:

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 920 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

# **LIMITATIONS**

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 921 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_921

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 921 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

#### LIMITATIONS

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry



#### FILL CERTIFICATE

PROJECT: Lot No 922 (Drawing MIE100)

Aston Estate (Stage 9), Craigieburn

CLIENT: Winslow Constructors Pty Ltd

50 Barry Road

CAMPBELLFIELD VIC 3061

REPORT NO: 13424\_922

DATE: 04/02/14

# **SUMMARY**

Civil Geotechnical Services were engaged by Winslow Constructors Pty Ltd to provide inspection and testing services on the earthworks associated with Lot 922 of the Aston Estate (Stage 9), Craigieburn, in a manner which would satisfy the criteria for Level 1 Supervision as specified in Section 8.2 of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments - 2007. The project was classified as Type 1/2 requiring a minimum density ratio of 95.0% (standard compactive effort) within the area of fill placement.

A site inspection was conducted prior to any fill being placed on the Lot. On the completion of earthworks and after examining the test results and the materials used, we are of the opinion that the filling procedure conducted by Winslow Constructors Pty Ltd satisfied the requirements of AS 3798 in regard to the placement of fill on a Type 1/2 Project under Level 1 Supervision.

Accordingly, when classifying the site in accordance with the procedures presented in Section 2 of AS 2870 – Residential Slabs and Footings – Construction (2011), we are of the view that the bulk fill materials that were placed on this Lot by Winslow Constructors Pty Ltd can be considered as being placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

#### LIMITATIONS

The use of this Certificate is only appropriate for the field conditions present up to 27<sup>th</sup> November 2011.

Justin Fry