



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

21st January 2020

Our Reference: 18272:NB648

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
GRACE – STAGE 4 (TARNEIT)**

Please find attached our Report No's 18272/R001 to 18272/R016 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 commenced in May 2018 and was completed in July 2019.

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, illegible stamp.

Nick Brock

FIGURE 1

SERVICE OFFSET TABLE							
STREET NAME		GAS	NDW	WATER	TELECOMMS	ELECTRICITY	
FLINTWOOD STREET	2.10	W	2.60	W	3.10	W	1.85 E 2.65 E
BODALLA DRIVE	2.10	S	2.60	S	3.10	S	1.85 N 2.65 N
WOLIN DRIVE	2.10	N	2.60	N	3.10	N	1.85 S 2.65 S
LACEBACK WAY	2.10	S	2.60	S	3.10	S	1.85 E 2.65 N
MARCA STREET	2.10	W	2.60	W	3.10	W	1.85 E 2.65 E

NOTE: OFFSETS SHOWN ARE IN METRES (M)

TREE OFFSET TABLE				
STREET NAME	TREE	TREE	TREE	
FLINTWOOD STREET	3.00	W	2.80	E
BODALLA DRIVE	3.00	S	2.80	N
WOLIN DRIVE	3.00	N	2.80	S
LACEBACK WAY	3.00	S	2.80	N
MARCA STREET	3.00	W	2.80	E

NOTE: OFFSETS SHOWN ARE IN METRES (M)

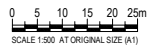
Approximate field density test location

INSTALL SUBSURFACE DRAIN, CONCRETE EDGE STRIP AND TEMPORARY GRAVEL TURNING HEAD IF FUTURE STAGE HAS NOT COMMENCED CLASS 3 PCR

Planning and Environment Act 1987
Wyndham Planning Scheme
Approved Plan As Required
under Condition 37
Permit No WYP9287/16
Date 22/03/2018

WARNING
PROPOSED SERVICES
THE LOCATION AND EXTENT OF PROPOSED SERVICES IS INDICATIVE ONLY AND ARE NOT TO BE USED FOR CONSTRUCTION. REFER TO AUTHORIZED DOCUMENTATION BY RELEVANT AUTHORITY FOR CONSTRUCTION DETAILS.

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.



GRACE
TARNEIT

MEINHARDT
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CLIENT
TARNIET PROJECTS PTY LTD
P O BOX 8023
CAMBERWELL NORTH, VIC 3124
TITLE
LAYOUT PLAN

PROJECT
GRACE - STAGE 4
605 HOGANS ROAD, TARNEIT
WYNDHAM CITY COUNCIL
STATUS
FOR CONSTRUCTION

DESIGNED LG	DRAWN HE	APPROVED SW	SCALE @ A1 SHOWN	SHEET 3 of 17
PROJECT NO. 114652-04		DRAWING NO. C100		REV 00

ROADWORKS LEGEND

- B2 KERB & CHANNEL - (AS NOTED)
- TRANSITION KERB
- PROPOSED DRIVEWAY CROSSING
- EXISTING CONSTRUCTION TO BE REMOVED
- NEW BATTER
- EXISTING STORMWATER DRAIN, PIT AND PROPERTY INLET
- OR
- STORMWATER DRAIN, PIT AND PROPERTY INLET
- SEWER, MAINTENANCE STRUCTURES AND PROPERTY CONNECTION
- SWALE DRAIN INVERT AND DIRECTION OF FLOW
- PERMANENT SURVEY MARK (PSM)
- TEMPORARY BENCH MARK (TBM)
- EXISTING SURFACE LEVEL
- FINISHED SURFACE LEVEL
- TOP OR TOE OF BATTER LEVEL
- INVERT OF SWALE LEVEL
- STORMWATER PIT NO.
- TACTILE PAVERS
- UTILITIES CONDUIT
- STREET SIGN
- CONCRETE EDGE STRIP WITH SUBSOIL DRAIN
- "NO ROAD" SIGN & BARRIER
- PROPOSED RETAINING WALL - REFER DRAWING 114652-03-C200 FOR DETAIL
- NEW FINISHED SURFACE CONTOUR
- EXISTING SURFACE CONTOUR
- LIMIT OF WORKS
- PROPOSED ELECTRICITY
- PROPOSED GAS
- PROPOSED SEWER
- BRANCH SEWER
- PROPOSED TELECOMMUNICATIONS
- PROPOSED TEL.STR & OPTIS
- PROPOSED WATER
- PROPOSED NON-DRINKING WATER
- EXISTING ELECTRICITY
- EXISTING GAS
- EXISTING SEWER
- EXISTING TELECOMMUNICATIONS
- EXISTING WATER
- EXISTING NON-DRINKING WATER
- EXISTING TREE
- EXISTING TREE TO BE REMOVED

EARTHWORKS LEGEND

- LOT FILL (FULL GREATER THAN 200mm DEEP)
- LOT CUT (CUT GREATER THAN 200mm DEEP)

REV	DESCRIPTION	BY	APP	DATE
01	CONSTRUCTION ISSUE	HE	LG	11/11/16

DRAWN BY: LG, CHECKED BY: HE, DATE: 11/11/16, SCALE: 1:500, SHEET: 3 OF 17, PROJECT: GRACE - STAGE 4, CLIENT: TARNIET PROJECTS PTY LTD



COMPACTION ASSESSMENT

Job No 18272
 Report No 18272/R001
 Date Issued 17/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	GRACE - STAGE 4	Date tested	07/05/18
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	13:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		1	2	3	-	-	-
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/m ³	1.70	1.72	1.75	-	-	-
Field moisture content	%	32.7	35.2	32.6	-	-	-

Test procedure AS 1289.5.7.1

Test No		1	2	3	-	-	-
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/m ³	1.70	1.74	1.75	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	30.5	33.0	31.0	-	-	-

Moisture Variation From Optimum Moisture Content		2.5% wet	2.5% wet	1.5% wet	-	-	-
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Density Ratio (R _{HD})	%	100.0	99.0	100.0	-	-	-
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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



COMPACTION ASSESSMENT

Job No 18272
 Report No 18272/R002
 Date Issued 21/01/2019

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	GRACE - STAGE 4	Date tested	09/05/18
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:57
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		4	5	6	7	-	-
Location		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	-	-
Field wet density	t/m ³	2.01	2.01	1.96	1.96	-	-
Field moisture content	%	25.2	25.8	32.4	28.4	-	-

Test procedure AS 1289.5.7.1

Test No		4	5	6	7	-	-
Compactive effort		Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	-	-
Percent of oversize material	wet	0	0	0	0	-	-
Peak Converted Wet Density	t/m ³	2.07	2.06	2.02	2.01	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	27.5	28.0	31.0	28.5	-	-

Moisture Variation From Optimum Moisture Content		2.5% dry	2.0% dry	1.5% wet	0.0%	-	-
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Density Ratio (R _{HD})	%	97.0	97.5	97.0	97.5	-	-
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Material description

No 4 - 7 Clay Fill

AVRLOT HILF V1.10 MAR 13



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Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18272
 Report No 18272/R003
 Date Issued 13/11/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	GRACE - STAGE 4	Date tested	10/05/18
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	8	9	10	-	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL						
Measurement depth <i>mm</i>	175	175	175	-	-	-
Field wet density <i>t/m³</i>	2.07	2.11	2.07	-	-	-
Field moisture content <i>%</i>	25.9	25.3	23.7	-	-	-

Test procedure AS 1289.5.7.1

Test No	8	9	10	-	-	-
Compactive effort	Standard					
Oversize rock retained on sieve <i>mm</i>	19.0	19.0	19.0	-	-	-
Percent of oversize material <i>wet</i>	0	0	0	-	-	-
Peak Converted Wet Density <i>t/m³</i>	2.11	2.10	2.11	-	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content <i>%</i>	25.5	25.0	24.0	-	-	-

Moisture Variation From Optimum Moisture Content	0.0%	0.0%	0.5% dry	-	-	-
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Density Ratio (R_{HD})	%	98.5	100.5	98.0	-	-	-
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Material description

No 8 - 10 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18272
 Report No 18272/R004
 Date Issued 04/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	GRACE - STAGE 4	Date tested	17/05/18
Location	TARNEIT	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	11	12	13	14	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1		
Approximate depth below FSL						
Measurement depth <i>mm</i>	175	175	175	175	-	-
Field wet density <i>t/m³</i>	2.01	1.93	1.93	1.95	-	-
Field moisture content %	17.9	18.9	18.9	22.9	-	-

Test procedure AS 1289.5.7.1

Test No	11	12	13	14	-	-
Compactive effort	Standard					
Oversize rock retained on sieve <i>mm</i>	19.0	19.0	19.0	19.0	-	-
Percent of oversize material <i>wet</i>	7	2	2	2	-	-
Peak Converted Wet Density <i>t/m³</i>	2.00	1.94	1.94	1.99	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	2.03	1.95	1.95	2.00	-	-
Optimum Moisture Content %	20.0	21.5	21.0	23.5	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.0% dry	0.5% dry	-	-
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Density Ratio (<i>R_{HD}</i>) %	99.0	99.0	99.0	97.5	-	-
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Material description

No 11 - 14 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18272
 Report No 18272/R005
 Date Issued 20/12/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	GRACE - STAGE 4	Date tested	18/05/18
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 08:30
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	15	16	17	18	19	20
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 <i>mm</i>	175	175	175	175	175	175
Field wet density <i>t/m³</i>	2.00	2.04	2.06	2.19	2.08	2.12
Field moisture content <i>%</i>	32.6	32.5	33.3	18.5	19.1	17.6

Test procedure AS 1289.5.7.1

Test No	15	16	17	18	19	20
Compactive effort	Standard					
Oversize rock retained on sieve <i>mm</i>	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material <i>wet</i>	0	0	0	0	0	0
Peak Converted Wet Density <i>t/m³</i>	2.05	2.10	2.10	2.20	2.10	2.20
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content <i>%</i>	30.0	30.0	30.5	20.0	21.0	19.5

Moisture Variation From Optimum Moisture Content	2.5% wet	2.5% wet	2.5% wet	1.5% dry	2.0% dry	2.0% dry
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Density Ratio (R_{HD})	%	97.5	97.0	98.5	99.5	99.0	96.5
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Material description

No 15 - 20 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18272
 Report No 18272/R006
 Date Issued 20/12/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	GRACE - STAGE 4	Date tested	21/05/18
Location	TARNEIT	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	21	22	23	24	25	26
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 <i>mm</i>	175	175	175	175	175	175
Field wet density <i>t/m³</i>	1.96	1.99	1.94	1.95	2.03	2.04
Field moisture content <i>%</i>	24.2	25.2	23.8	30.4	26.8	23.7

Test procedure AS 1289.5.7.1

Test No	21	22	23	24	25	26
Compactive effort	Standard					
Oversize rock retained on sieve <i>mm</i>	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material <i>wet</i>	0	0	0	0	0	0
Peak Converted Wet Density <i>t/m³</i>	2.00	2.00	2.00	2.00	2.10	2.10
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content <i>%</i>	26.5	27.5	26.0	33.0	26.5	23.0

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.0% dry	2.0% dry	0.0%	1.0% wet
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Density Ratio (R_{HD})	%	98.0	99.5	97.0	98.0	96.5	97.0
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Material description

No 21 - 26 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



COMPACTION ASSESSMENT

Job No 18272
 Report No 18272/R007
 Date Issued 20/12/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	GRACE - STAGE 4	Date tested	23/05/18
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	27	28	29	30	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1		
Approximate depth below FSL						
Measurement depth <i>mm</i>	175	175	175	175	-	-
Field wet density <i>t/m³</i>	1.96	1.98	1.97	2.02	-	-
Field moisture content <i>%</i>	24.9	24.8	17.8	22.5	-	-

Test procedure AS 1289.5.7.1

Test No	27	28	29	30	-	-
Compactive effort	Standard					
Oversize rock retained on sieve <i>mm</i>	19.0	19.0	19.0	19.0	-	-
Percent of oversize material <i>wet</i>	0	0	0	0	-	-
Peak Converted Wet Density <i>t/m³</i>	2.05	2.05	2.05	2.05	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content <i>%</i>	25.0	25.0	20.0	22.5	-	-

Moisture Variation From Optimum Moisture Content	0.0%	0.5% dry	2.0% dry	0.0%	-	-
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Density Ratio (R_{HD})	%	95.5	96.5	96.0	98.0	-	-
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Material description

No 27 - 30 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



COMPACTION ASSESSMENT

Job No 18272
 Report No 18272/R008
 Date Issued 16/07/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	GRACE - STAGE 4	Date tested	24/05/18
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:30
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	31	32	33	34	35	36
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	2.09	2.05	2.01	2.07	1.92
Field moisture content	%	16.7	17.6	17.0	29.0	27.5

Test procedure AS 1289.5.7.1

Test No	31	32	33	34	35	36
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	2.10	2.10	2.11	2.10	2.00
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	17.0	17.5	14.5	26.5	25.0

Moisture Variation From Optimum Moisture Content	0.0%	0.0%	2.5% wet	2.5% wet	2.5% wet	2.5% wet
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Density Ratio (R _{HD})	%	99.5	97.5	95.0	98.5	98.0	95.5
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Material description

No 31 - 36 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



COMPACTION ASSESSMENT

Job No 18272
 Report No 18272/R009
 Date Issued 18/07/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	GRACE - STAGE 4	Date tested	25/05/18
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	10:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	37	38	39	40	41	42	
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	1.94	1.99	1.99	1.94	1.97	2.06
Field moisture content	%	23.1	18.3	19.5	23.6	20.3	21.6

Test procedure AS 1289.5.7.1

Test No	37	38	39	40	41	42	
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	1	
Peak Converted Wet Density	t/m ³	2.03	2.05	2.07	2.01	2.05	2.13
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	2.14
Optimum Moisture Content	%	24.0	18.5	21.5	26.0	18.0	19.0

Moisture Variation From Optimum Moisture Content	1.0% dry	0.0%	2.0% dry	2.5% dry	2.0% wet	2.5% wet
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Density Ratio (R _{HD})	%	95.5	97.0	96.5	96.5	96.0	96.0
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Material description

No 37 - 42 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18272
 Report No 18272/R010
 Date Issued 23/07/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	GRACE - STAGE 4	Date tested	28/05/18
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	09:01
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		43	44	45	46	47	48
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	1.89	1.89	1.88	1.98	1.96	1.98
Field moisture content	%	19.7	18.2	18.1	16.2	18.1	18.7

Test procedure AS 1289.5.7.1

Test No		43	44	45	46	47	48
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	1.90	1.91	1.90	1.99	2.00	2.01
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	20.0	18.0	18.5	18.5	20.5	21.0

Moisture Variation From Optimum Moisture Content	0.5% dry	0.0%	0.0%	2.5% dry	2.5% dry	2.5% dry
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Density Ratio (R _{HD})	%	99.0	99.5	99.0	99.5	98.0	98.5
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Material description

No 43 - 48 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18272
 Report No 18272/R011
 Date Issued 23/07/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	GRACE - STAGE 4	Date tested	29/05/18
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:30
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	49	50	51	52	53	54
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	1.84	1.89	1.83	1.95	1.93
Field moisture content	%	24.7	24.7	24.1	14.1	26.8

Test procedure AS 1289.5.7.1

Test No	49	50	51	52	53	54
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	1.91	1.92	1.91	2.00	2.01
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	24.5	22.5	24.0	14.0	26.5

Moisture Variation From Optimum Moisture Content	0.0%	2.0% wet	0.0%	0.5% wet	0.5% wet	0.0%
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Density Ratio (R _{HD})	%	96.5	99.0	96.0	97.5	96.0	98.0
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Material description

No 49 - 54 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18272
 Report No 18272/R012
 Date Issued 22/08/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	GRACE - STAGE 4	Date tested	30/05/18
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	10:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	55	56	57	-	-	-
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/m ³	2.02	2.08	2.09	-	-
Field moisture content	%	13.4	11.6	16.2	-	-

Test procedure AS 1289.5.7.1

Test No	55	56	57	-	-	-
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/m ³	2.05	2.10	2.10	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	15.5	18.5	18.5	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.0% dry	-	-	-
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Density Ratio (R _{HD})	%	98.5	99.0	99.5	-	-
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Material description

No 55 - 57 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18272
 Report No 18272/R013
 Date Issued 22/08/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	GRACE - STAGE 4	Date tested	31/05/18
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	58	59	60	61	62	63
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	1.87	1.88	1.94	1.91	1.93
Field moisture content	%	33.9	37.0	31.0	30.6	29.1

Test procedure AS 1289.5.7.1

Test No	58	59	60	61	62	63
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	1.90	1.90	2.00	1.90	2.00
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	32.0	34.5	31.5	31.0	29.0

Moisture Variation From Optimum Moisture Content	2.0% wet	2.5% wet	0.5% dry	0.0%	0.0%	2.5% wet
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Density Ratio (R _{HD})	%	98.5	98.5	97.0	100.0	96.5	96.5
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Material description

No 58 - 63 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18272
 Report No 18272/R014
 Date Issued 17/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	GRACE - STAGE 4	Date tested	04/06/18
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 08:30
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	64	65	66	67	68	69
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 <i>mm</i>	175	175	175	175	175	175
Field wet density <i>t/m³</i>	1.90	1.94	1.80	1.94	1.86	1.90
Field moisture content %	21.2	24.7	28.4	22.9	27.4	23.4

Test procedure AS 1289.5.7.1

Test No	64	65	66	67	68	69
Compactive effort	Standard					
Oversize rock retained on sieve <i>mm</i>	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material <i>wet</i>	0	0	0	0	0	0
Peak Converted Wet Density <i>t/m³</i>	1.92	1.95	1.80	1.97	1.88	1.92
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content %	23.5	27.0	29.5	23.0	28.0	24.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	1.0% dry	0.0%	0.5% dry	1.0% dry
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Density Ratio (R_{HD})	%	99.0	100.0	100.0	98.5	99.0	99.0
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Material description

No 64 - 69 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18272
 Report No 18272/R015
 Date Issued 23/08/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	GRACE - STAGE 4	Date tested	12/07/18
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	12:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		70	71	72	-	-	-
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/m ³	1.96	1.91	1.88	-	-	-
Field moisture content	%	27.5	26.6	26.3	-	-	-

Test procedure AS 1289.5.7.1

Test No		70	71	72	-	-	-
Compactive effort		Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	#DIV/0!	-	-	-
Peak Converted Wet Density	t/m ³	1.95	1.96	1.95	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	1.97	-	-	-	-
Optimum Moisture Content	%	27.0	26.0	26.0	-	-	-

Moisture Variation From Optimum Moisture Content		0.5% wet	0.5% wet	0.0%	-	-	-
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Density Ratio (R _{HD})	%	100.5	97.0	96.5	-	-	-
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Material description

No 70 - 72 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18272
 Report No 18272/R016
 Date Issued 10/01/2019

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	GRACE - STAGE 4	Date tested	13/07/18
Location	TARNEIT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	73	74	75	-	-	-
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/m ³	1.90	1.87	1.84	-	-
Field moisture content	%	30.3	27.6	24.4	-	-

Test procedure AS 1289.5.7.1

Test No	73	74	75	-	-	-
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/m ³	1.94	1.94	1.90	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	28.0	26.0	25.5	-	-

Moisture Variation From Optimum Moisture Content	2.0% wet	1.5% wet	1.5% dry	-	-	-
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Density Ratio (R _{HD})	%	98.5	96.0	97.0	-	-
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Material description

No 73 - 75 Clay Fill



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