



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

11th January 2019

Our Reference: 18409:NB328 Rev.1

Rokon Pty Ltd
1 / 75 River Street
RICHMOND VIC 3121

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
RIVERWALK – STAGE 26 (WERRIBEE)

Please find attached our Report No's 18409/R001 to 18409/R057 which relate to the field density testing that was conducted at the filled allotments of the above subdivision. The level 1 inspections and associated field density testing commenced in July and were completed in August 2018.

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 filled allotments by Rokon 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 filled allotments by Rokon 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). We also confirm that an allowable bearing pressure of at least 100 kPa is available for strip and pad footings and edge and load bearing beams of raft slabs founding in the controlled fill materials.

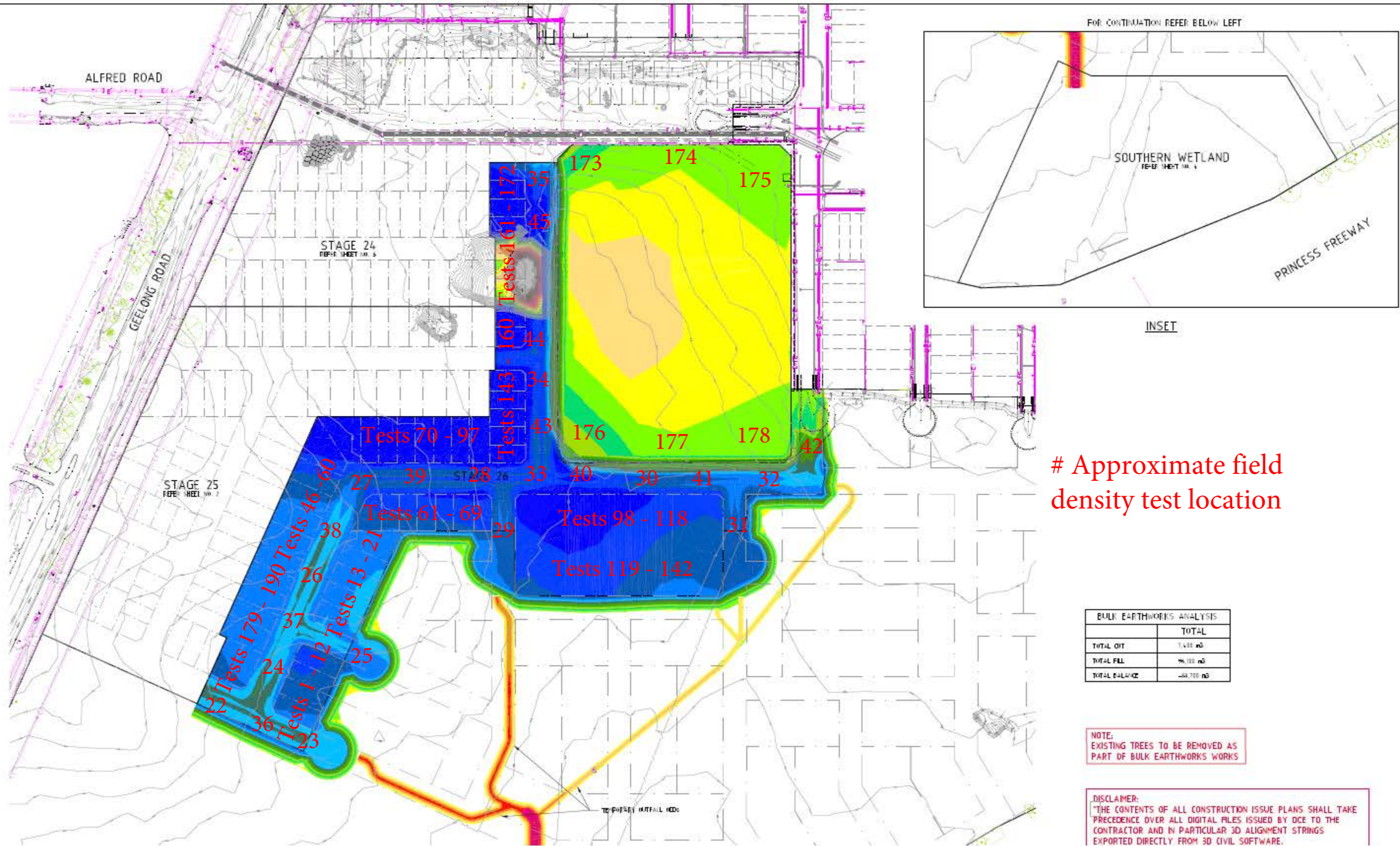
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

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

Nick Brock

FIGURE 1



Approximate field density test location



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R001
 Date Issued 17/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by GW
 Date tested 12/07/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 12:00
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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	1.97	1.94	1.93	-	-	-
<i>Field moisture content</i> %	15.3	14.3	15.0	-	-	-

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	1.96	1.93	1.93	-	-	-
<i>Adjusted Peak Converted Wet Density</i> t/m ³	-	-	-	-	-	-
<i>Optimum Moisture Content</i> %	17.5	16.5	17.5	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	2.0% dry	2.5% dry	2.5% dry	-	-	-
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Density Ratio (R_{HD}) %	100.5	100.5	100.5	-	-	-
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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 18409
 Report No 18409/R002
 Date Issued 17/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	ROKON (RICHMOND)	Tested by	SB
Project	RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS	Date tested	13/07/18
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:30
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	4	5	6	-	-	-
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>	1.99	2.01	1.95	-	-	-
Field moisture content %	19.2	16.0	15.3	-	-	-

Test procedure AS 1289.5.7.1

Test No	4	5	6	-	-	-
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>	1.98	2.00	1.97	-	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content %	21.5	18.5	18.0	-	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.5% dry	-	-	-
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Density Ratio (R_{HD})	%	100.5	100.5	99.0	-	-
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Material description

No 4 - 6 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R003
 Date Issued 17/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by GW
 Date tested 17/07/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature EARTHWORKS *Layer thickness* 200 mm *Time:* 13:39

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		7	8	9	-	-	-
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	1.93	1.87	1.90	-	-	-
Field moisture content	%	14.7	14.4	15.2	-	-	-

Test procedure AS 1289.5.7.1

Test No		7	8	9	-	-	-
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	1.92	1.87	1.90	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	17.0	16.5	17.0	-	-	-

Moisture Variation From Optimum Moisture Content		2.5% dry	2.5% dry	2.0% dry	-	-	-
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Density Ratio (R_{HD})	%	100.5	100.5	100.0	-	-	-
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Material description

No 7 - 9 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R004
 Date Issued 20/08/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by GW
 Date tested 18/07/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 14:01
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	10	11	12	-	-	-
<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	2.00	1.99	1.95	-	-	-
<i>Field moisture content</i> %	16.7	14.6	16.2	-	-	-

Test procedure AS 1289.5.7.1

Test No	10	11	12	-	-	-
<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	2.01	2.00	2.00	-	-	-
<i>Adjusted Peak Converted Wet Density</i> t/m ³	-	-	-	-	-	-
<i>Optimum Moisture Content</i> %	16.5	12.0	16.0	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	0.5% wet	2.5% wet	0.0%	-	-	-
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Density Ratio (R_{HD}) %	99.5	99.5	97.5	-	-	-
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Material description

No 10 - 12 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R005
 Date Issued 17/08/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS	Date tested	19/07/18
Location	WERRIBEE	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	13	14	15	-	-	-
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>	1.98	1.99	1.97	-	-	-
Field moisture content <i>%</i>	14.2	14.4	14.1	-	-	-

Test procedure AS 1289.5.7.1

Test No	13	14	15	-	-	-
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>	2.01	2.00	2.00	-	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content <i>%</i>	17.0	16.5	16.5	-	-	-

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

No 13 - 15 Clay Fill



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COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R006
 Date Issued 17/08/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by GW
 Date tested 20/07/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 12:35
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	16	17	18	-	-	-
<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	2.00	2.00	-	-	-
<i>Field moisture content</i> %	15.9	14.6	15.6	-	-	-

Test procedure AS 1289.5.7.1

Test No	16	17	18	-	-	-
<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	2.00	2.01	2.00	-	-	-
<i>Adjusted Peak Converted Wet Density</i> t/m ³	-	-	-	-	-	-
<i>Optimum Moisture Content</i> %	18.5	16.5	18.0	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	2.5% dry	2.0% dry	2.5% dry	-	-	-
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Density Ratio (R_{HD}) %	101.0	99.5	100.0	-	-	-
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Material description

No 16 - 18 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R007
 Date Issued 09/08/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS	Date tested	21/07/18
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	08:03
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	19	20	21	-	-	-
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	2.02	1.98	-	-
Field moisture content	%	18.2	16.8	15.8	-	-

Test procedure AS 1289.5.7.1

Test No	19	20	21	-	-	-
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	2.01	2.10	2.00	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	21.0	19.0	18.0	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.0% dry	2.5% dry	-	-	-
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Density Ratio (R _{HD})	%	97.5	96.5	99.0	-	-
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Material description

No 19 - 21 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R008
 Date Issued 20/08/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by GW
 Date tested 23/07/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature EARTHWORKS *Layer thickness* 200 mm *Time:* 10:00

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		22	23	24	-	-	-
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	1.93	1.92	1.93	-	-	-
Field moisture content	%	12.2	12.7	12.6	-	-	-

Test procedure AS 1289.5.7.1

Test No		22	23	24	-	-	-
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	1.95	1.94	1.95	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	14.5	15.0	14.5	-	-	-

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

No 22 - 24 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R009
 Date Issued 17/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by GW
 Date tested 24/07/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature EARTHWORKS *Layer thickness* 200 mm *Time:* 11:07

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		25	26	27	-	-	-
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	2.01	2.00	1.99	-	-	-
Field moisture content	%	11.3	9.3	11.4	-	-	-

Test procedure AS 1289.5.7.1

Test No		25	26	27	-	-	-
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	2.01	1.99	1.98	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	13.5	11.0	14.0	-	-	-

Moisture Variation From Optimum Moisture Content		2.0% dry	2.0% dry	2.5% dry	-	-	-
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Density Ratio (R_{HD})	%	99.5	100.5	100.5	-	-	-
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Material description

No 25 - 27 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R010
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by GW
 Date tested 25/07/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:55
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	28	29	30	-	-	-
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	2.12	2.11	2.13	-	-	-
Field moisture content %	15.7	16.4	16.0	-	-	-

Test procedure AS 1289.5.7.1

Test No	28	29	30	-	-	-
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	2.12	2.14	2.14	-	-	-
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	16.0	16.5	16.0	-	-	-

Moisture Variation From Optimum Moisture Content	0.0%	0.5% dry	0.0%	-	-	-
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Density Ratio (R_{HD})	%	100.0	99.0	99.5	-	-	-
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Material description

No 28 - 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 18409
 Report No 18409/R011
 Date Issued 17/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by GW
 Date tested 26/07/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature EARTHWORKS *Layer thickness* 200 mm *Time:* 13:35

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		31	32	33	-	-	-
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	2.00	2.03	2.02	-	-	-
Field moisture content	%	16.5	15.6	16.5	-	-	-

Test procedure AS 1289.5.7.1

Test No		31	32	33	-	-	-
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	1.99	2.02	2.02	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	18.5	18.0	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})	%	100.5	100.5	100.0	-	-	-
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Material description

No 31 - 33 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R012
 Date Issued 23/08/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by GW
 Date tested 27/07/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 11:54
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	34	35	36	-	-	-
<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	1.96	1.92	1.94	-	-	-
<i>Field moisture content</i> %	15.6	16.1	16.6	-	-	-

Test procedure AS 1289.5.7.1

Test No	34	35	36	-	-	-
<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	1.95	1.96	1.97	-	-	-
<i>Adjusted Peak Converted Wet Density</i> t/m ³	-	-	-	-	-	-
<i>Optimum Moisture Content</i> %	18.0	19.0	19.0	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	2.0% dry	2.5% dry	2.5% dry	-	-	-
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Density Ratio (R_{HD}) %	100.5	98.0	98.5	-	-	-
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Material description

No 34 - 36 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R013
 Date Issued 17/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS	Date tested	30/07/18
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:43
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	37	38	39	-	-	-
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>	1.91	1.95	1.90	-	-	-
Field moisture content %	16.6	15.9	16.7	-	-	-

Test procedure AS 1289.5.7.1

Test No	37	38	39	-	-	-
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>	1.92	1.94	1.90	-	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content %	18.5	18.5	19.5	-	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.5% dry	-	-	-
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Density Ratio (R_{HD}) %	99.5	100.5	100.5	-	-	-
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Material description

No 37 - 39 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R014
 Date Issued 17/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS	Date tested	07/08/18
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:18
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		40	41	42	-	-	-
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	2.03	2.03	-	-	-
Field moisture content	%	16.0	17.0	16.7	-	-	-

Test procedure AS 1289.5.7.1

Test No		40	41	42	-	-	-
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	2.03	2.05	2.04	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	18.0	17.5	18.5	-	-	-

Moisture Variation From Optimum Moisture Content		2.0% dry	0.5% dry	1.5% dry	-	-	-
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Density Ratio (R _{HD})	%	99.5	99.0	99.5	-	-	-
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Material description

No 40 - 42 Clay Fill



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COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R015
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by GW
 Date tested 14/08/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:17
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		43	44	45	-	-	-
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	2.21	2.23	2.23	-	-	-
Field moisture content	%	12.9	13.1	12.4	-	-	-

Test procedure AS 1289.5.7.1

Test No		43	44	45	-	-	-
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	2.23	2.28	2.27	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	13.5	13.5	12.0	-	-	-

Moisture Variation From Optimum Moisture Content	0.5% dry	0.0%	0.5% wet	-	-	-
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Density Ratio (R_{HD})	%	99.5	98.0	98.0	-	-	-
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Material description

No 43 - 45 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R016
 Date Issued 17/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS	Date tested	15/08/18
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:52
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	46	47	48	-	-	-
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	2.22	2.20	2.17	-	-
Field moisture content	%	12.1	12.2	11.7	-	-

Test procedure AS 1289.5.7.1

Test No	46	47	48	-	-	-
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-
Percent of oversize material	wet	1	0	0	-	-
Peak Converted Wet Density	t/m ³	2.18	2.19	2.17	-	-
Adjusted Peak Converted Wet Density	t/m ³	2.20	2.20	-	-	-
Optimum Moisture Content	%	14.5	15.0	14.0	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	2.0% dry	-	-	-
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Density Ratio (R_{HD})	%	101.0	100.0	100.0	-	-
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Material description

No 46 - 48 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R017
 Date Issued 17/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS	Date tested	16/08/18
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 14:53
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	49	50	51	-	-	-
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	2.15	2.13	2.11	-	-
Field moisture content	%	13.0	13.9	12.1	-	-

Test procedure AS 1289.5.7.1

Test No	49	50	51	-	-	-
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	2.15	2.14	2.20	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	15.5	16.0	14.5	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.0% dry	2.0% dry	-	-	-
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Density Ratio (R_{HD})	%	100.0	99.5	96.0	-	-
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Material description

No 49 - 51 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R018
 Date Issued 17/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by GW
 Date tested 17/08/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 14:35
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<i>Test procedure AS 1289.2.1.1 & 5.8.1</i>						
Test No	52	53	54	-	-	-
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	1.99	2.00	2.00	-	-
Field moisture content	%	17.5	14.1	13.8	-	-
<i>Test procedure AS 1289.5.7.1</i>						
Test No	52	53	54	-	-	-
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-
Percent of oversize material	wet	4	9	2	-	-
Peak Converted Wet Density	t/m ³	2.07	2.06	2.09	-	-
Adjusted Peak Converted Wet Density	t/m ³	2.08	2.09	2.10	-	-
Optimum Moisture Content	%	18.0	15.0	14.5	-	-
Moisture Variation From Optimum Moisture Content		0.5% dry	1.0% dry	0.5% dry	-	-
Density Ratio (R_{HD})	%	95.5	95.5	95.5	-	-
<i>Material description</i>						
No 52 - 54 Clay Fill						



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R019
 Date Issued 17/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 21/08/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature EARTHWORKS *Layer thickness* 200 mm *Time:* 12:19

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	2.03	1.96	2.02	-	-	-
Field moisture content	%	15.8	15.2	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	2.03	1.95	2.02	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	17.0	17.0	18.0	-	-	-

Moisture Variation From Optimum Moisture Content		1.0% dry	1.5% dry	1.5% dry	-	-	-
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Density Ratio (R_{HD})	%	100.0	100.0	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 18409
 Report No 18409/R020
 Date Issued 26/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by GW
 Date tested 24/08/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:15
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	58	59	60	-	-	-
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	2.04	2.03	2.01	-	-	-
Field moisture content %	23.5	20.8	20.8	-	-	-

Test procedure AS 1289.5.7.1

Test No	58	59	60	-	-	-
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	2.08	2.07	2.06	-	-	-
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	24.0	21.5	21.0	-	-	-

Moisture Variation From Optimum Moisture Content	0.5% dry	0.5% dry	0.5% dry	-	-	-
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Density Ratio (R_{HD})	%	98.0	98.0	97.5	-	-	-
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Material description

No 58 - 60 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R021
 Date Issued 17/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 25/08/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 12:22
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	61	62	63	-	-	-
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>	1.95	1.98	1.96	-	-	-
Field moisture content %	20.0	19.3	15.7	-	-	-

Test procedure AS 1289.5.7.1

Test No	61	62	63	-	-	-
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>	1.94	1.96	1.99	-	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content %	22.5	21.5	17.5	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	2.5% dry	2.0% dry	2.0% dry	-	-	-
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Density Ratio (R_{HD})	%	100.5	101.0	98.5	-	-
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Material description

No 61 - 63 Clay Fill



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COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R022
 Date Issued 06/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by GW
 Date tested 04/09/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 12:25
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	64	65	66	-	-	-
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>	1.89	1.90	1.90	-	-	-
Field moisture content %	15.4	16.2	15.7	-	-	-

Test procedure AS 1289.5.7.1

Test No	64	65	66	-	-	-
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>	1.90	1.90	1.89	-	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content %	17.0	19.0	18.0	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	2.0% dry	2.5% dry	2.5% dry	-	-	-
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Density Ratio (R_{HD})	%	99.5	100.0	100.5	-	-	-
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Material description

No 64 - 66 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R023
 Date Issued 17/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS	Date tested	04/09/18
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:49
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	67	68	69	-	-	-
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>	2.00	2.02	2.00	-	-	-
Field moisture content %	16.7	16.9	13.4	-	-	-

Test procedure AS 1289.5.7.1

Test No	67	68	69	-	-	-
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>	2.00	2.00	1.98	-	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content %	19.0	19.5	15.5	-	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.0% dry	-	-	-
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Density Ratio (R_{HD})	%	100.5	100.5	100.5	-	-	-
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Material description

No 67 - 69 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R024
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by GW
 Date tested 07/09/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 11:42
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	70	71	72	73	74	75
<i>Location</i>	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	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	175	175	175
<i>Field wet density</i> t/m ³	1.90	1.91	1.91	2.05	2.06	2.06
<i>Field moisture content</i> %	10.5	10.1	10.4	15.6	15.5	17.3

Test procedure AS 1289.5.7.1

Test No	70	71	72	73	74	75
<i>Compactive effort</i>	Standard					
<i>Oversize rock retained on sieve</i> mm	19.0	19.0	19.0	19.0	19.0	19.0
<i>Percent of oversize material</i> wet	0	0	0	0	0	0
<i>Peak Converted Wet Density</i> t/m ³	1.94	1.94	1.93	2.09	2.06	2.12
<i>Adjusted Peak Converted Wet Density</i> t/m ³	-	-	-	-	-	-
<i>Optimum Moisture Content</i> %	11.0	10.5	10.5	18.0	16.0	19.0

<i>Moisture Variation From Optimum Moisture Content</i>	0.5% dry	0.5% dry	0.0%	2.5% dry	0.0%	1.5% dry
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Density Ratio (R_{HD}) %	98.0	98.0	99.0	98.0	99.5	97.5
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Material description

No 70 - 75 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 18409
 Report No 18409/R025
 Date Issued 15/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS	Date tested	11/09/18
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:32
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	76	77	78	79	80	81
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	2.03	1.81	1.86	1.86	1.83
Field moisture content	%	24.5	23.7	22.5	19.9	20.6

Test procedure AS 1289.5.7.1

Test No	76	77	78	79	80	81
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	2.08	1.82	1.87	1.91	1.85
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	27.5	26.0	25.0	22.0	22.5

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

Density Ratio (R_{HD})	%	97.5	99.5	99.5	97.5	99.5	99.0
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Material description

No 76 - 81 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R026
 Date Issued 23/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by GW
 Date tested 11/09/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature EARTHWORKS *Layer thickness* 200 mm *Time:* 11:37

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		82	83	84	-	-	-
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	2.00	2.01	2.03	-	-	-
Field moisture content	%	15.9	13.2	13.1	-	-	-

Test procedure AS 1289.5.7.1

Test No		82	83	84	-	-	-
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	2.01	2.02	2.04	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	18.5	15.5	15.5	-	-	-

Moisture Variation From Optimum Moisture Content		2.5% dry	2.0% dry	2.5% dry	-	-	-
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Density Ratio (R_{HD})	%	99.5	99.5	100.0	-	-	-
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Material description

No 82 - 84 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R027
 Date Issued 04/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS	Date tested	17/09/18
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:57
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	85	86	87	88	-	-
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>	1.93	1.89	1.93	1.83	-	-
Field moisture content <i>%</i>	15.4	15.4	16.1	18.5	-	-

Test procedure AS 1289.5.7.1

Test No	85	86	87	88	-	-
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	0	5	5	-	-
Peak Converted Wet Density <i>t/m³</i>	1.91	1.89	1.92	1.80	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	1.94	-	1.94	1.83	-	-
Optimum Moisture Content <i>%</i>	17.5	18.0	18.0	21.5	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.0% dry	2.5% dry	-	-
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Density Ratio (R_{HD})	%	100.0	100.0	99.5	100.0	-	-
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Material description

No 85 - 88 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R028
 Date Issued 04/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by GW
 Date tested 18/09/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature EARTHWORKS *Layer thickness* 200 mm *Time:* 10:04

Test procedure AS 1289.2.1.1 & 5.8.1

Test No	89	90	91	92	93	94
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	1.77	1.82	1.83	1.92	1.99	1.88
Field moisture content %	18.2	18.4	21.0	9.4	13.4	11.4

Test procedure AS 1289.5.7.1

Test No	89	90	91	92	93	94
Compactive effort	Standard					
Oversize rock retained on sieve mm	37.5	19.0	19.0	19.0	19.0	19.0
Percent of oversize material wet	5	19	12	4	10	0
Peak Converted Wet Density t/m ³	1.77	1.79	1.79	1.91	2.00	1.88
Adjusted Peak Converted Wet Density t/m ³	-	1.88	1.85	1.93	2.03	-
Optimum Moisture Content %	20.0	21.0	23.5	11.5	15.5	14.0

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

No 89 - 94 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R029
 Date Issued 23/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 26/09/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 07:54
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	95	96	97	-	-	-
<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	1.99	2.04	2.01	-	-	-
<i>Field moisture content</i> %	9.2	8.8	10.8	-	-	-

Test procedure AS 1289.5.7.1

Test No	95	96	97	-	-	-
<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	2.03	2.06	2.06	-	-	-
<i>Adjusted Peak Converted Wet Density</i> t/m ³	-	-	-	-	-	-
<i>Optimum Moisture Content</i> %	11.5	11.0	13.0	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	2.5% dry	2.5% dry	2.5% dry	-	-	-
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Density Ratio (R_{HD}) %	98.0	99.0	98.0	-	-	-
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Material description

No 95 - 97 Clay Fill



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COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R030
 Date Issued 23/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 25/09/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 08:06
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	98	99	100	-	-	-
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>	1.87	1.83	1.84	-	-	-
Field moisture content %	8.7	8.4	9.8	-	-	-

Test procedure AS 1289.5.7.1

Test No	98	99	100	-	-	-
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>	1.91	1.87	1.87	-	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content %	10.5	10.5	12.0	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	2.0% dry	2.5% dry	2.0% dry	-	-	-
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Density Ratio (R_{HD}) %	98.0	98.0	98.5	-	-	-
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Material description

No 98 - 100 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R031
 Date Issued 23/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 26/09/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

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

Test No	101	102	103	-	-	-
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>	2.20	2.20	2.14	-	-	-
Field moisture content %	9.1	9.4	8.7	-	-	-

Test procedure AS 1289.5.7.1

Test No	101	102	103	-	-	-
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>	2.21	2.22	2.16	-	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content %	11.0	11.5	11.5	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	2.0% dry	2.0% dry	2.5% dry	-	-	-
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Density Ratio (R_{HD})	%	100.0	99.5	99.5	-	-	-
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Material description

No 101 - 103 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R032
 Date Issued 23/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 27/09/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

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	104	105	106	-	-	-
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	2.13	2.11	2.12	-	-
Field moisture content	%	9.8	7.8	8.3	-	-

Test procedure AS 1289.5.7.1

Test No	104	105	106	-	-	-
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	2.14	2.14	2.13	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	12.0	10.0	11.0	-	-

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

No 104 - 106 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R033
 Date Issued 12/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS	Date tested	03/09/18
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:55
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	107	108	109	-	-	-
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>	2.18	2.19	2.20	-	-	-
Field moisture content <i>%</i>	11.8	12.1	9.3	-	-	-

Test procedure AS 1289.5.7.1

Test No	107	108	109	-	-	-
Compactive effort	Standard					
Oversize rock retained on sieve <i>mm</i>	19.0	19.0	19.0	-	-	-
Percent of oversize material <i>wet</i>	5	2	5	-	-	-
Peak Converted Wet Density <i>t/m³</i>	2.26	2.29	2.24	-	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	2.27	2.29	2.25	-	-	-
Optimum Moisture Content <i>%</i>	10.0	9.5	8.5	-	-	-

Moisture Variation From Optimum Moisture Content	2.0% wet	2.5% wet	0.5% wet	-	-	-
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Density Ratio (<i>R_{HD}</i>)	%	96.0	95.5	98.0	-	-	-
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Material description

No 107 - 109 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R034
 Date Issued 23/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 05/09/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 10:26
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	110	111	112	-	-	-
<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	2.08	2.07	2.09	-	-	-
<i>Field moisture content</i> %	11.3	10.0	10.2	-	-	-

Test procedure AS 1289.5.7.1

Test No	110	111	112	-	-	-
<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	2.11	2.09	2.12	-	-	-
<i>Adjusted Peak Converted Wet Density</i> t/m ³	-	-	-	-	-	-
<i>Optimum Moisture Content</i> %	9.5	7.5	8.0	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	2.0% wet	2.5% wet	2.0% wet	-	-	-
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Density Ratio (R_{HD}) %	99.0	99.0	98.5	-	-	-
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Material description

No 110 - 112 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R035
 Date Issued 23/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 06/09/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 13:29
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	113	114	115	-	-	-
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>	2.11	2.11	2.12	-	-	-
Field moisture content %	13.9	11.0	12.9	-	-	-

Test procedure AS 1289.5.7.1

Test No	113	114	115	-	-	-
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>	2.14	2.14	2.17	-	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content %	14.5	13.5	13.0	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	0.5% dry	2.5% dry	0.0%	-	-	-
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Density Ratio (R_{HD})	%	99.0	98.5	97.5	-	-	-
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Material description

No 113 - 115 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R036
 Date Issued 23/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 10/09/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 09:31
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	116	117	118	-	-	-
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	2.08	2.07	2.04	-	-	-
Field moisture content %	13.5	14.0	11.8	-	-	-

Test procedure AS 1289.5.7.1

Test No	116	117	118	-	-	-
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	2.12	2.10	2.07	-	-	-
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	13.5	14.0	13.0	-	-	-

Moisture Variation From Optimum Moisture Content	0.0%	0.0%	1.5% dry	-	-	-
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Density Ratio (R_{HD})	%	98.5	98.5	98.0	-	-	-
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Material description

No 116 - 118 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R037
 Date Issued 12/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 12/09/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 12:34
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	119	120	121	-	-	-
<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	2.14	2.14	2.14	-	-	-
<i>Field moisture content</i> %	10.5	12.4	11.5	-	-	-

Test procedure AS 1289.5.7.1

Test No	119	120	121	-	-	-
<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	2	3	-	-	-
<i>Peak Converted Wet Density</i> t/m ³	2.22	2.24	2.23	-	-	-
<i>Adjusted Peak Converted Wet Density</i> t/m ³	-	2.24	2.23	-	-	-
<i>Optimum Moisture Content</i> %	11.0	10.5	11.5	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	0.5% dry	2.0% wet	0.0%	-	-	-
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Density Ratio (R_{HD}) %	97.0	95.5	96.0	-	-	-
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Material description

No 119 - 121 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R038
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 13/09/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

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

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		122	123	124	-	-	-
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	2.13	2.06	2.07	-	-	-
Field moisture content	%	11.7	10.9	8.5	-	-	-

Test procedure AS 1289.5.7.1

Test No		122	123	124	-	-	-
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	2.12	2.08	2.09	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	9.5	10.5	8.5	-	-	-

Moisture Variation From Optimum Moisture Content	2.0% wet	0.5% wet	0.0%	-	-	-
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Density Ratio (R_{HD})	%	100.5	99.0	99.5	-	-	-
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Material description

No 122 - 124 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R039
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 14/09/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 13:38
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	125	126	127	-	-	-
<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	2.11	2.08	2.13	-	-	-
<i>Field moisture content</i> %	8.6	11.1	8.8	-	-	-

Test procedure AS 1289.5.7.1

Test No	125	126	127	-	-	-
<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	2.13	2.10	2.17	-	-	-
<i>Adjusted Peak Converted Wet Density</i> t/m ³	-	-	-	-	-	-
<i>Optimum Moisture Content</i> %	8.5	11.0	9.0	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	0.0%	0.0%	0.0%	-	-	-
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Density Ratio (R_{HD}) %	98.5	99.5	98.0	-	-	-
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Material description

No 125 - 127 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R040
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 19/09/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:44
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	128	129	130	-	-	-
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	2.12	2.13	2.09	-	-	-
Field moisture content %	8.9	9.0	11.2	-	-	-

Test procedure AS 1289.5.7.1

Test No	128	129	130	-	-	-
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	2.15	2.17	2.12	-	-	-
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	8.0	8.5	10.5	-	-	-

Moisture Variation From Optimum Moisture Content	1.0% wet	0.5% wet	0.5% wet	-	-	-
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Density Ratio (R_{HD})	%	99.0	98.0	98.5	-	-	-
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Material description

No 128 - 130 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R041
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS	Date tested	20/09/18
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 15:46
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	131	132	133	134	135	136
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	2.12	2.09	2.06	2.07	2.06
Field moisture content	%	14.1	13.6	13.9	14.5	15.0

Test procedure AS 1289.5.7.1

Test No	131	132	133	134	135	136
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	2.14	2.12	2.10	2.10	2.06
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	14.0	13.5	14.0	14.5	14.5

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

No 131 - 136 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R042
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 21/09/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 10:49
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	137	138	139	140	141	142
<i>Location</i>	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	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	175	175	175
<i>Field wet density</i> t/m ³	2.13	2.06	2.04	2.09	2.00	2.02
<i>Field moisture content</i> %	13.9	14.9	14.0	14.1	12.4	13.1

Test procedure AS 1289.5.7.1

Test No	137	138	139	140	141	142
<i>Compactive effort</i>	Standard					
<i>Oversize rock retained on sieve</i> mm	19.0	19.0	19.0	19.0	19.0	19.0
<i>Percent of oversize material</i> wet	0	0	0	0	0	0
<i>Peak Converted Wet Density</i> t/m ³	2.16	2.09	2.07	2.12	2.04	2.04
<i>Adjusted Peak Converted Wet Density</i> t/m ³	-	-	-	-	-	-
<i>Optimum Moisture Content</i> %	14.0	15.0	14.0	14.0	15.0	11.0

<i>Moisture Variation From Optimum Moisture Content</i>	0.0%	0.0%	0.0%	0.0%	2.5% dry	2.5% wet
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Density Ratio (R_{HD}) %	98.5	98.5	98.5	98.5	98.0	99.0
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Material description

No 137 - 142 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R043
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 02/10/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature EARTHWORKS *Layer thickness* 200 mm *Time:* 15:00

Test procedure AS 1289.2.1.1 & 5.8.1

Test No	143	144	145	-	-	-
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	1.98	1.92	2.07	-	-	-
Field moisture content %	25.8	23.5	23.4	-	-	-

Test procedure AS 1289.5.7.1

Test No	143	144	145	-	-	-
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	2.01	1.95	2.12	-	-	-
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	28.0	25.5	26.0	-	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	1.5% dry	2.0% dry	-	-	-
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Density Ratio (R_{HD}) %	98.5	98.5	98.0	-	-	-
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Material description

No 143 - 145 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R044
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 03/10/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 13:51
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	146	147	148	-	-	-
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>	1.87	1.90	1.92	-	-	-
Field moisture content %	23.4	21.7	26.5	-	-	-

Test procedure AS 1289.5.7.1

Test No	146	147	148	-	-	-
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>	1.92	1.94	1.94	-	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content %	23.5	22.0	26.5	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	0.0%	0.5% dry	0.0%	-	-	-
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Density Ratio (R_{HD})	%	97.5	97.5	99.0	-	-	-
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Material description

No 146 - 148 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R045
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 04/10/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 13:52
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	149	150	151	-	-	-
<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	1.82	1.82	1.91	-	-	-
<i>Field moisture content</i> %	16.1	18.2	14.0	-	-	-

Test procedure AS 1289.5.7.1

Test No	149	150	151	-	-	-
<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	1.86	1.84	1.92	-	-	-
<i>Adjusted Peak Converted Wet Density</i> t/m ³	-	-	-	-	-	-
<i>Optimum Moisture Content</i> %	17.5	20.5	16.0	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	1.5% dry	2.0% dry	2.0% dry	-	-	-
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Density Ratio (R_{HD}) %	98.0	99.0	99.5	-	-	-
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Material description

No 149 - 151 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R046
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 05/10/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:52
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	152	153	154	155	156	157
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	1.92	1.94	2.01	2.01	1.96	1.97
Field moisture content %	16.0	12.6	16.7	13.2	14.4	14.5

Test procedure AS 1289.5.7.1

Test No	152	153	154	155	156	157
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	1.95	1.95	2.03	2.06	2.00	2.00
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	17.5	14.5	19.0	15.5	16.0	16.0

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

No 152 - 157 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R047
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 01/08/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 09:58
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	158	159	160	-	-	-
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	2.24	2.23	2.16	-	-	-
Field moisture content %	30.5	25.0	18.7	-	-	-

Test procedure AS 1289.5.7.1

Test No	158	159	160	-	-	-
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	2.25	2.24	2.17	-	-	-
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	32.5	27.5	22.0	-	-	-

Moisture Variation From Optimum Moisture Content	1.5% dry	2.0% dry	2.5% dry	-	-	-
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Density Ratio (R _{HD})	%	100.0	99.5	99.5	-	-	-
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Material description

No 158 - 160 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 18409
 Report No 18409/R048
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 02/08/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 16:18
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	161	162	163	-	-	-
<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	2.25	2.20	2.24	-	-	-
<i>Field moisture content</i> %	10.1	11.1	13.3	-	-	-

Test procedure AS 1289.5.7.1

Test No	161	162	163	-	-	-
<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	2.25	2.25	2.28	-	-	-
<i>Adjusted Peak Converted Wet Density</i> t/m ³	-	-	-	-	-	-
<i>Optimum Moisture Content</i> %	12.0	13.5	15.5	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	2.0% dry	2.5% dry	2.0% dry	-	-	-
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Density Ratio (R_{HD}) %	100.0	98.0	98.5	-	-	-
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Material description

No 161 - 163 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R049
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 03/08/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:21
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	164	165	166	-	-	-
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	2.20	2.24	2.24	-	-
Field moisture content	%	11.2	10.4	8.7	-	-

Test procedure AS 1289.5.7.1

Test No	164	165	166	-	-	-
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	2.25	2.26	2.26	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	13.5	12.5	11.0	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.0% dry	-	-	-
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Density Ratio (R_{HD})	%	98.0	99.5	99.0	-	-
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Material description

No 164 - 166 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R050
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 06/08/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 16:25
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	167	168	169	-	-	-
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	2.15	2.18	2.19	-	-	-
Field moisture content %	11.9	13.1	12.8	-	-	-

Test procedure AS 1289.5.7.1

Test No	167	168	169	-	-	-
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	2.17	2.22	2.20	-	-	-
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	14.5	15.5	15.5	-	-	-

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

No 167 - 169 Clay Fill



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COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R051
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 08/08/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 09:56
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	170	171	172	-	-	-
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	2.01	2.14	2.13	-	-	-
Field moisture content %	10.8	9.9	10.1	-	-	-

Test procedure AS 1289.5.7.1

Test No	170	171	172	-	-	-
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	2.16	2.19	-	-	-
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	13.0	12.0	12.5	-	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.5% dry	-	-	-
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Density Ratio (R_{HD})	%	98.0	99.0	97.5	-	-	-
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Material description

No 170 - 172 Clay Fill



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COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R052
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 09/08/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 11:34
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	173	174	175	-	-	-
<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	2.11	2.14	2.02	-	-	-
<i>Field moisture content</i> %	10.6	10.3	9.6	-	-	-

Test procedure AS 1289.5.7.1

Test No	173	174	175	-	-	-
<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	2.16	2.17	2.06	-	-	-
<i>Adjusted Peak Converted Wet Density</i> t/m ³	-	-	-	-	-	-
<i>Optimum Moisture Content</i> %	12.5	12.5	12.0	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	2.0% dry	2.0% dry	2.0% dry	-	-	-
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Density Ratio (R_{HD}) %	98.0	98.5	98.0	-	-	-
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Material description

No 173 - 175 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R053
 Date Issued 12/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 10/08/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 11:56
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	176	177	178	-	-	-
<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	1.95	1.95	1.94	-	-	-
<i>Field moisture content</i> %	11.3	10.7	11.1	-	-	-

Test procedure AS 1289.5.7.1

Test No	176	177	178	-	-	-
<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	2.02	2.02	2.02	-	-	-
<i>Adjusted Peak Converted Wet Density</i> t/m ³	-	-	-	-	-	-
<i>Optimum Moisture Content</i> %	13.5	12.5	13.5	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	2.0% dry	2.0% dry	2.5% dry	-	-	-
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Density Ratio (R_{HD}) %	96.5	96.5	96.0	-	-	-
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Material description

No 176 - 178 Clay Fill



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COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R054
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 13/08/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:56
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		179	180	181	-	-	-
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	1.99	2.00	2.01	-	-	-
Field moisture content	%	11.6	12.5	13.5	-	-	-

Test procedure AS 1289.5.7.1

Test No		179	180	181	-	-	-
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	2.04	2.05	2.04	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	14.5	15.0	15.5	-	-	-

Moisture Variation From Optimum Moisture Content		2.5% dry	2.5% dry	2.0% dry	-	-	-
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Density Ratio (R_{HD})	%	98.0	98.0	98.5	-	-	-
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Material description

No 179 - 181 Clay Fill



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COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R055
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by BGG
 Date tested 06/10/18
 Checked by JHF

Client ROKON (RICHMOND)
 Project RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS
 Location WERRIBEE

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:56
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		182	183	184	-	-	-
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	2.00	2.02	1.87	-	-	-
Field moisture content	%	10.8	10.0	12.1	-	-	-

Test procedure AS 1289.5.7.1

Test No		182	183	184	-	-	-
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	2.03	2.05	1.91	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	12.5	12.5	14.5	-	-	-

Moisture Variation From Optimum Moisture Content		2.0% dry	2.5% dry	2.5% dry	-	-	-
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Density Ratio (R_{HD})	%	98.5	98.5	98.0	-	-	-
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Material description

No 182 - 184 Clay Fill



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COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R056
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS	Date tested	22/08/18
Location	WERRIBEE	Checked by	JHF

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

Test No	185	186	187	-	-	-
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	2.09	1.89	1.97	-	-
Field moisture content	%	13.1	10.6	15.3	-	-

Test procedure AS 1289.5.7.1

Test No	185	186	187	-	-	-
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	2.14	1.94	2.00	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	13.0	11.5	15.5	-	-

Moisture Variation From Optimum Moisture Content	0.0%	1.0% dry	0.0%	-	-	-
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Density Ratio (R _{HD})	%	97.5	97.5	98.5	-	-
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Material description

No 185 - 187 Clay Fill



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18409
 Report No 18409/R057
 Date Issued 25/10/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 27 BULK EARTHWORKS	Date tested	23/08/18
Location	WERRIBEE	Checked by	JHF

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

Test No	188	189	190	-	-	-
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	2.06	2.03	1.94	-	-
Field moisture content	%	10.7	7.9	9.2	-	-

Test procedure AS 1289.5.7.1

Test No	188	189	190	-	-	-
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	2.09	2.08	1.95	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	12.5	10.0	11.0	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.0% dry	-	-	-
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Density Ratio (R _{HD})	%	98.5	98.0	99.5	-	-
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Material description

No 188 - 190 Clay Fill



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Approved Signatory : Justin Fry