



HALL CORP PTY LTD AC/N 066 449 789 ABN 34 149 057 162 ATF HALL FAMILY TRUST BA
P.O. BOX 7760, GARbutt B.C., Q., 4814, PHONE: (07) 4774 7888, FAX: (07) 4774 7677
ses01@bigpond.com

August 18, 2016

Shadforths Civil Engineering Contractors Pty Ltd
99 Sandalwood Lane
Forest Glen
QLD 4556

Attention: Mr. Aaron Holloway

**RE: BNS173 Rosewood Green Stage 1A, Rosewood,
Ipswich, Level 1 Earthworks Certification**

Dear Sir,

Soil Engineering Services was engaged by Shadforths Civil Contractors to undertake Level 1 Supervision at the above mentioned job and hereby certify that the fill placement was carried out in accordance with AS3798 "Guidelines on Earthworks for Commercial and Residential Developments" for Level 1 inspection, testing and supervision as detailed in clause 8.2.

Supervision and Compaction Control Testing was undertaken during the placement of approximately 18,000 m³ volume of fill material across the site to approximately depths between 0.1 m and 1.8 m across the site. A total number of fifty seven (57) Compaction Control Tests were carried out in accordance with the requirements of AS3798 Table 5.1 (Item 1) and Table 8.1 (Type 1). A site plan showing the area of the fill placement with tested locations is attached at the end.

The results obtained from the Compaction Control Tests along with observations made during earthworks operations indicate that all fill materials were placed in a controlled manner in accordance with AS3798 and good engineering practices. Such fill is also considered to be 'controlled' fill in accordance with AS2870 (Clause 6.4.2 (a)). This certification does not include any other geotechnical issues, road works and backfill to service trenches.

Regards,

Matthew Rheinberger
Soil Engineering Services

Sam Jeyan
Senior Geotechnical Engineer
RPEQ - 13339

Attachments:

Site Plan showing the extend of "controlled" fill placement with tested locations

Density Test Reports

HUNT MICHEL & PARTNERS
 CONSULTING ENGINEERS
 CIVIL AND STRUCTURAL
 A.B.N. 75 074 746 999
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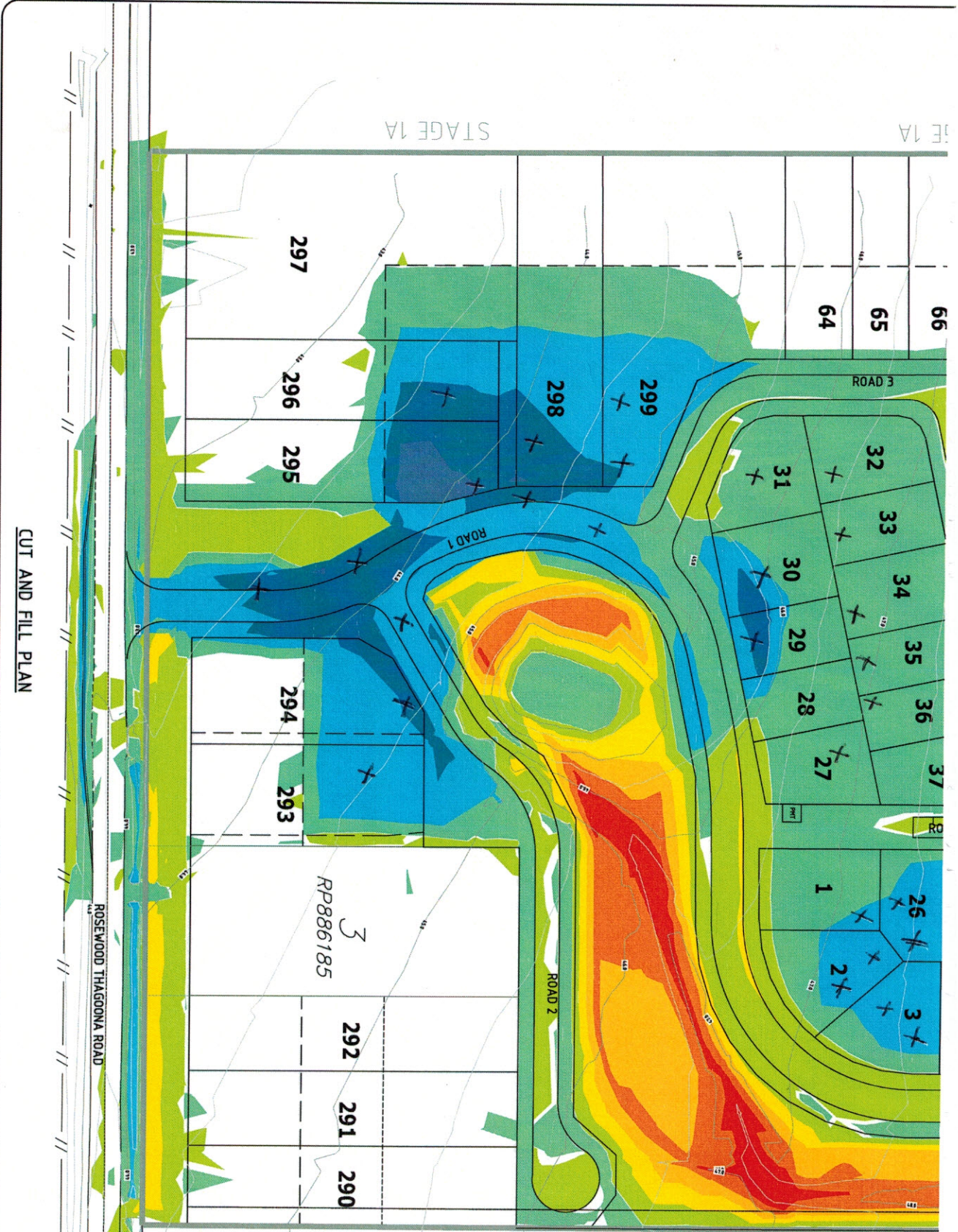
CLIENT
 ROSEWOOD GREEN DEVELOPMENT
 PO BOX 3715
 ROUSE HILL NSW 2155

PROJECT
 PROPOSED SUBDIVISION
 "ROSEWOOD GREEN ESTATE"
 STAGE 1A

DRAWING TITLE
 CUT AND FILL EARTHWORKS PLAN
 SHEET 1 OF 3

REV	DATE	REV
1		
2		
3		
4		
5		
6		
7		
8		
9		

DESIGNED: N.K.
 DRAWN: N.K.
 CHECKED: D.K.
 SCALE: 1500 AT A1
 DATE: _____
 JOB NO: 208072
 DWG NO: C60



LEGEND
 --- EXISTING SURFACE CONTOUR
 --- DEPTH OF FILL CONTOURS
 --- DEPTH OF CUT CONTOURS

ISSUED FOR CONSTRUCTION

Number	Minimum Elevation	Maximum Elevation	Area
1	-2.88	-2.00	1000.76
2	-2.00	-1.50	4603.22
3	-1.50	-1.00	4244.70
4	-1.00	-0.50	3113.78
5	-0.50	0.01	14238.76
6	0.01	0.30	27028.16
7	0.30	1.00	12288.42
8	1.00	1.50	2889.78
9	1.50	1.84	253.18



SCALE 1:500



STAGE 1A

IF 1A

ROSEWOOD THAGOONA ROAD

ROAD 2

ROAD 1

ROAD 3

RP886185

292 291 290

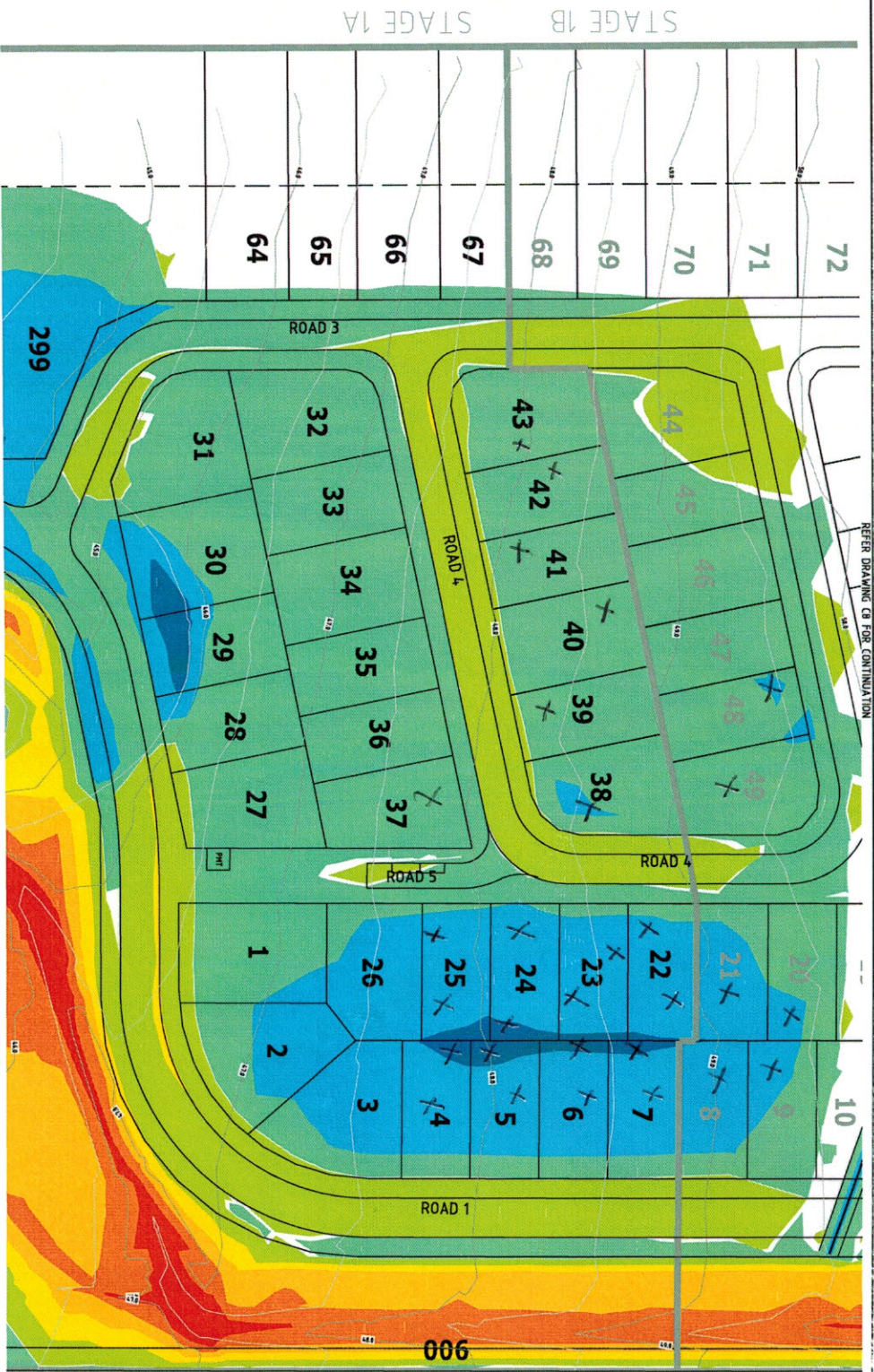
294 293

297 296 295

299 298

66 65 64

32 33 34 35 36 37
 31 30 29 28 27
 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1



CUT AND FILL PLAN

REFER DRAWING C6 FOR CONTINUATION

REFER DRAWING C8 FOR CONTINUATION

Number	Minimum Elevation	Maximum Elevation	Area	Color
1	-2.88	-2.00	1000.78	Red
2	-2.00	-1.50	4603.22	Orange
3	-1.50	-1.00	4244.70	Yellow
4	-1.00	-0.50	3113.78	Light Green
5	-0.50	-0.01	14234.76	Green
6	0.01	0.50	27926.19	Light Blue
7	0.50	1.00	12288.42	Blue
8	1.00	1.50	2889.78	Dark Blue
9	1.50	1.84	253.18	Black



- LEGEND**
- EXISTING SURFACE CONTOURS
 - DEPTH OF FILL CONTOURS
 - DEPTH OF CUT CONTOURS

SCALE 1:500



ISSUED FOR CONSTRUCTION

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 PO BOX 3715
 ROUSE HILL NSW 2155

PROJECT
 PROPOSED SUBDIVISION
 "ROSEWOOD GREEN ESTATE"
 STAGE 1A

DRAWING TITLE
 CUT AND FILL EARTHWORKS PLAN
 SHEET 2 OF 3

REV	DATE	REV	DATE
1			
2			
3			
4			

DESIGNED: N.K.
 DRAWN: N.K.
 CHECKED: D.H.
 SCALE: 1:500 AT A1
 DATE:

JOB NO. 208020
 DWG NO. C7D



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 brisbane@soilengineeringservices.com

Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 5
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	21/03/2016
Project Name :	Rosewood Green - Stage 1 - Bulk Earthworks	Order Number :	
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 1 of 1	

Sample Number :	BN7729	BN7730	
Test Number :			
Sampling Method :	-	-	
Date Sampled :	14/03/2016	14/03/2016	
Date Tested :	14/03/2016	14/03/2016	
Material Type :	Allotment Fill	Allotment Fill	
Material Source :	From Site	From Site	
Lot Number :			
Sample Location :	E: 461749.4 N: 6943313.3 RL: 45.2 Desc: Silty Clay - Grey Orange Brown	E: 461760.5 N: 6943290.2 RL: 44.9 Desc: Silty Clay - Grey Orange Brown	
Test Depth (mm) :	275	275	
Layer Depth (mm) :	300	300	
Maximum Size (mm) :	9.5	9.5	
Oversize Wet (%) :	0	0	
Oversize Dry (%) :			
Oversize Density (t/m ³) :			
Field Moisture Content (%) :	25.1	24.3	
Hilf MDR Number :	BN7729	BN7730	
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1	
Compactive Effort :	Standard	Standard	
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1	
Moisture Ratio (%) :	118	99.5	
Field Wet Density (t/m ³) :	1.968	1.993	
Optimum Moisture Content (%) :	21.2	24.4	
Moisture Variation :	4.5% (dry)	4.5% (dry)	
Peak Converted Wet Density (t/m ³) :	1.89	1.93	
Hilf Density Ratio (%) :	102.5	103.5	
Minimum Specification :	95	95	
Moisture Specification :			
Site Selection :			
Soil Description :			
Remarks :	-		



This document is issued in accordance with NATA's accreditation requirements.

APPROVED SIGNATORY

David Sankey - Senior Technician
 NATA Accreditation Number
 19460



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Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 4
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	21/03/2016
Project Name :	Rosewood Green - Stage 1 - Bulk Earthworks	Order Number :	
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 1 of 1	

Sample Number :	BN7708	BN7709		
Test Number :				
Sampling Method :	-	-		
Date Sampled :	4/03/2016	4/03/2016		
Date Tested :	4/03/2016	4/03/2016		
Material Type :	Allotment Fill	Allotment Fill		
Material Source :	From Site	From Site		
Lot Number :				
Sample Location :	E: 461824.5 N: 6943476.2 RL: 48.4 Desc: Silty Clay Brown	E: 461838.7 N: 6943453.3 RL: 47.7 Desc: Silty Clay Brown		
Test Depth (mm) :	275	275		
Layer Depth (mm) :	300	300		
Maximum Size (mm) :	9.5	9.5		
Oversize Wet (%) :	0	0		
Oversize Dry (%) :				
Oversize Density (t/m ³) :				
Field Moisture Content (%) :	16.5	19.6		
Hilf MDR Number :	BN7708	BN7709		
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1		
Compactive Effort :	Standard	Standard		
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1		
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1		
Moisture Ratio (%) :	77.5	80.5		
Field Wet Density (t/m ³) :	1.936	1.992		
Optimum Moisture Content (%) :	21.2	24.4		
Moisture Variation :	4.5% (dry)	4.5% (dry)		
Peak Converted Wet Density (t/m ³) :	1.89	1.93		
Hilf Density Ratio (%) :	102.5	103.5		
Minimum Specification :	95	95		
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			



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Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 3
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	21/03/2016
Project Name :	Rosewood Green - Stage 1 - Bulk Earthworks	Order Number :	
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 1 of 3	

Sample Number :	BN7934	BN7935	BN7936	BN7937
Test Number :				
Sampling Method :	-	-	-	-
Date Sampled :	1/03/2016	1/03/2016	1/03/2016	1/03/2016
Date Tested :	1/03/2016	1/03/2016	1/03/2016	1/03/2016
Material Type :	Fill Foundation	Fill Foundation	Fill Foundation	Fill Foundation
Material Source :	Onsite	Onsite	Onsite	Onsite
Lot Number :	22	23	24	25
Sample Location :	E: 461787.0 N: 6943496.7 RL: Base Layer Desc: Silty Clay Dark Brown	E: 461794.9 N: 6943482.9 RL: Base Layer Desc: Silty Clay Dark Brown	E: 461802.5 N: 6943472.6 RL: Base Layer Desc: Silty Clay Dark Brown	E: 461809.4 N: 6943460.6 RL: Base Layer Desc: Silty Clay Dark Brown
Test Depth (mm) :	275	275	275	275
Layer Depth (mm) :	300	300	300	300
Maximum Size (mm) :	19.0	19.0	19.0	19.0
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m ³) :				
Field Moisture Content (%) :	15.7	16.4	17.7	14.2
Hilf MDR Number :	BN7934	BN7935	BN7936	BN7937
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1
Moisture Ratio (%) :	100.5	101.5	102	100.5
Field Wet Density (t/m ³) :	1.692	1.690	1.697	1.693
Optimum Moisture Content (%) :	15.6	16.2	17.3	14.1
Moisture Variation :	0% (wet)	0.5% (wet)	0.5% (wet)	0% (wet)
Peak Converted Wet Density (t/m ³) :	1.76	1.76	1.74	1.75
Hilf Density Ratio (%) :	96.0	96.5	97.5	96.5
Minimum Specification :	95	95	95	95
Moisture Specification :	-	-	-	-
Site Selection :				
Soil Description :				
Remarks :	-			



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Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 3
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	21/03/2016
Project Name :	Rosewood Green - Stage 1 - Bulk Earthworks	Order Number :	
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 2 of 3	

Sample Number :	BN7938	BN7939	BN7940	BN7941
Test Number :				
Sampling Method :	-	-	-	-
Date Sampled :	1/03/2016	1/03/2016	1/03/2016	1/03/2016
Date Tested :	1/03/2016	1/03/2016	1/03/2016	1/03/2016
Material Type :	Fill Foundation	Fill Foundation	Fill Foundation	Fill Foundation
Material Source :	Onsite	Onsite	Onsite	Onsite
Lot Number :	26	2	3	4
Sample Location :	E: 461818.5 N: 6943445.3 RL: Base Layer Desc: Silty Clay Dark Brown	E: 461843.5 N: 6943431.5 RL: Base Layer Desc: Silty Clay Dark Brown	E: 461841.5 N: 6943461.2 RL: Base Layer Desc: Silty Clay Dark Brown	E: 461839.8 N: 6943472.1 RL: Base Layer Desc: Silty Clay Dark Brown
Test Depth (mm) :	275	275	275	275
Layer Depth (mm) :	300	300	300	300
Maximum Size (mm) :	19.0	19.0	19.0	19.0
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m ³) :				
Field Moisture Content (%) :	13.8	16.0	14.5	14.6
Hilf MDR Number :	BN7938	BN7939	BN7940	BN7941
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1
Moisture Ratio (%) :	101.5	101.5	102	101
Field Wet Density (t/m ³) :	1.694	1.693	1.646	1.637
Optimum Moisture Content (%) :	13.6	15.8	14.2	14.4
Moisture Variation :	0.5% (wet)	0.5% (wet)	0.5% (wet)	0% (wet)
Peak Converted Wet Density (t/m ³) :	1.76	1.74	1.72	1.71
Hilf Density Ratio (%) :	96.5	97.5	96.0	96.0
Minimum Specification :	95	95	95	95
Moisture Specification :	-	-	-	-
Site Selection :				
Soil Description :				
Remarks :	-			



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Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 3
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	21/03/2016
Project Name :	Rosewood Green - Stage 1 - Bulk Earthworks	Order Number :	
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 3 of 3	

Sample Number :	BN7942	BN7943	BN7944	
Test Number :				
Sampling Method :	-	-	-	
Date Sampled :	1/03/2016	1/03/2016	1/03/2016	
Date Tested :	1/03/2016	1/03/2016	1/03/2016	
Material Type :	Fill Foundation	Fill Foundation	Fill Foundation	
Material Source :	Onsite	Onsite	Onsite	
Lot Number :	5	6	7	
Sample Location :	E: 461829.3 N: 6943482.3 RL: Base Layer Desc: Silty Clay Dark Brown	E: 461825.4 N: 6943497.3 RL: Base Layer Desc: Silty Clay Dark Brown	E: 461816.8 N: 6943509.2 RL: Base Layer Desc: Silty Clay Dark Brown	
Test Depth (mm) :	275	275	275	
Layer Depth (mm) :	300	300	300	
Maximum Size (mm) :	19.0	19.0	19.0	
Oversize Wet (%) :	0	0	0	
Oversize Dry (%) :				
Oversize Density (t/m ³) :				
Field Moisture Content (%) :	15.2	15.3	14.8	
Hilf MDR Number :	BN7942	BN7943	BN7944	
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1	
Compactive Effort :	Standard	Standard	Standard	
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1	
Moisture Ratio (%) :	102	100	100.5	
Field Wet Density (t/m ³) :	1.693	1.686	1.693	
Optimum Moisture Content (%) :	14.9	15.3	14.7	
Moisture Variation :	0.5% (wet)	0% (dry)	0% (wet)	
Peak Converted Wet Density (t/m ³) :	1.74	1.75	1.76	
Hilf Density Ratio (%) :	97.5	96.0	96.5	
Minimum Specification :	95	95	95	
Moisture Specification :	-	-	-	
Site Selection :				
Soil Description :				
Remarks :	-			



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Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 2
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	21/03/2016
Project Name :	Rosewood Green - Stage 1 - Bulk Earthworks	Order Number :	
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 1 of 3	

Sample Number :	BN7738	BN7739	BN7740	BN7741
Test Number :				
Sampling Method :	-	-	-	-
Date Sampled :	3/03/2016	3/03/2016	3/03/2016	3/03/2016
Date Tested :	3/03/2016	3/03/2016	3/03/2016	3/03/2016
Material Type :	Foundation Preparation	Foundation Preparation	Foundation Preparation	Foundation Preparation
Material Source :	Insitu	Insitu	Insitu	Insitu
Lot Number :	22	23	24	25
Sample Location :	E: 461797.0 N: 6943500.2 RL: Existing Desc: Silty Clay - Brown	E: 461799.5 N: 6943489.9 RL: Existing Desc: Silty Clay - Brown	E: 461806.1 N: 6943474.7 RL: Existing Desc: Silty Clay - Brown	E: 461813.6 N: 6943462.9 RL: Existing Desc: Silty Clay - Brown
Test Depth (mm) :	275	275	275	275
Layer Depth (mm) :	300	300	300	300
Maximum Size (mm) :	19.0	19.0	19.0	19.0
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m ³) :				
Field Moisture Content (%) :	14.0	13.9	13.5	14.2
Hilf MDR Number :	BN7738	BN7739	BN7740	BN7741
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1
Moisture Ratio (%) :	83.5	85	84	83.5
Field Wet Density (t/m ³) :	1.892	1.953	1.923	1.917
Optimum Moisture Content (%) :	16.8	16.4	16.1	17.0
Moisture Variation :	3% (dry)	2.5% (dry)	2.5% (dry)	2.5% (dry)
Peak Converted Wet Density (t/m ³) :	1.87	1.95	1.97	1.96
Hilf Density Ratio (%) :	101.5	100.0	98.0	98.0
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			



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Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 2
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	21/03/2016
Project Name :	Rosewood Green - Stage 1 - Bulk Earthworks	Order Number :	
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 2 of 3	

Sample Number :	BN7742	BN7743	BN7744	BN7745
Test Number :				
Sampling Method :	-	-	-	-
Date Sampled :	3/03/2016	3/03/2016	3/03/2016	3/03/2016
Date Tested :	3/03/2016	3/03/2016	3/03/2016	3/03/2016
Material Type :	Foundation Preparation	Foundation Preparation	Foundation Preparation	Foundation Preparation
Material Source :	Insitu	Insitu	Insitu	Insitu
Lot Number :	26	2	3	4
Sample Location :	E: 461820.3 N: 6943448.5 RL: Existing Desc: Silty Clay - Brown	E: 461844.7 N: 6943437.0 RL: Existing Desc: Silty Clay - Brown	E: 461841.5 N: 6943452.0 RL: Existing Desc: Silty Clay - Brown	E: 461831.8 N: 6943466.1 RL: Existing Desc: Silty Clay - Brown
Test Depth (mm) :	275	275	275	275
Layer Depth (mm) :	300	300	300	300
Maximum Size (mm) :	19.0	19.0	19.0	19.0
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m ³) :				
Field Moisture Content (%) :	14.2	15.1	14.0	13.6
Hilf MDR Number :	BN7742	BN7743	BN7744	BN7745
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1
Moisture Ratio (%) :	85.5	85.5	84	83.5
Field Wet Density (t/m ³) :	1.909	1.932	1.913	1.908
Optimum Moisture Content (%) :	16.6	17.7	16.6	16.2
Moisture Variation :	2.5% (dry)	2.5% (dry)	2.5% (dry)	2.5% (dry)
Peak Converted Wet Density (t/m ³) :	1.98	1.97	1.96	1.95
Hilf Density Ratio (%) :	96.5	98.0	97.5	97.5
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			



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Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 2
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	21/03/2016
Project Name :	Rosewood Green - Stage 1 - Bulk Earthworks	Order Number :	
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 3 of 3	

Sample Number :	BN7746	BN7747	BN7748	
Test Number :				
Sampling Method :	-	-	-	
Date Sampled :	3/03/2016	3/03/2016	3/03/2016	
Date Tested :	3/03/2016	3/03/2016	3/03/2016	
Material Type :	Foundation Preparation	Foundation Preparation	Foundation Preparation	
Material Source :	Insitu	Insitu	Insitu	
Lot Number :	5	6	7	
Sample Location :	E: 461825.4 N: 6943480.0 RL: Existing Desc: Silty Clay - Brown	E: 461816.9 N: 6943494.2 RL: Existing Desc: Silty Clay - Brown	E: 461810.2 N: 6943506.7 RL: Existing Desc: Silty Clay - Brown	
Test Depth (mm) :	275	275	275	
Layer Depth (mm) :	300	300	300	300
Maximum Size (mm) :	19.0	19.0	19.0	
Oversize Wet (%) :	0	0	0	
Oversize Dry (%) :				
Oversize Density (t/m ³) :				
Field Moisture Content (%) :	13.9	14.0	14.1	
Hilf MDR Number :	BN7746	BN7747	BN7748	
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1	
Compactive Effort :	Standard	Standard	Standard	
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1	
Moisture Ratio (%) :	87	83.5	82	
Field Wet Density (t/m ³) :	1.903	1.882	1.886	
Optimum Moisture Content (%) :	16.0	16.7	17.2	
Moisture Variation :	2% (dry)	2.5% (dry)	3% (dry)	
Peak Converted Wet Density (t/m ³) :	1.98	1.97	1.95	
Hilf Density Ratio (%) :	96.0	96.0	97.0	
Minimum Specification :	95	95	95	
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			



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Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 28
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	18/04/2016
Project Name :	Rosewood Green - Stage 1	Order Number :	
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 1 of 1	

Sample Number :	BN7910	BN7911	BN7912	
Test Number :				
Sampling Method :	-	-	-	
Date Sampled :	18/03/2016	18/03/2016	18/03/2016	
Date Tested :	18/03/2016	18/03/2016	18/03/2016	
Material Type :				
Material Source :	Onsite	Onsite	Onsite	
Lot Number :				
Sample Location :	E: 461856.1 N: 6943295.5 RL: 44.9 Desc: Silty Clay Brown	E: 461850.1 N: 6943307.9 RL: 45.3 Desc: Silty Clay Brown	E: 461839.2 N: 6943297.5 RL: 45.2 Desc: Silty Clay Brown	
Test Depth (mm) :	275	275	275	
Layer Depth (mm) :	300	300	300	
Maximum Size (mm) :	19.0	19.0	19.0	
Oversize Wet (%) :	0	0	0	
Oversize Dry (%) :				
Oversize Density (t/m ³) :				
Field Moisture Content (%) :	14.9	13.6	13.5	
Hilf MDR Number :	BN7910	BN7911	BN7912	
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1	
Compactive Effort :	Standard	Standard	Standard	
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1	
Moisture Ratio (%) :	89	72.5	86	
Field Wet Density (t/m ³) :	2.054	1.950	2.040	
Optimum Moisture Content (%) :	16.8	18.7	15.7	
Moisture Variation :	2% (dry)	5% (dry)	2% (dry)	
Peak Converted Wet Density (t/m ³) :	1.98	1.92	1.98	
Hilf Density Ratio (%) :	104.0	101.5	103.0	
Minimum Specification :	95	95	95	
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			



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Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 26/2
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	28/04/2016
Project Name :	Rosewood Green - Stage 1	Order Number :	-
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 1 of 1	

Sample Number :	BN7916	BN7917	BN7918	
Test Number :				
Sampling Method :	-	-	-	
Date Sampled :	31/03/2016	31/03/2016	31/03/2016	
Date Tested :	31/03/2016	31/03/2016	31/03/2016	
Material Type :	Fill	Fill	Fill	
Material Source :	Onsite	Onsite	Onsite	
Lot Number :				
Sample Location :	E: 461806.4 N: 6943317.8 RL: 43.7 Desc: Silty Clay Brown	E: 461811.5 N: 6943317.6 RL: 43.7 Desc: Silty Clay Brown	E: 461815.0 N: 6943320.4 RL: 43.7 Desc: Silty Clay Brown	
Test Depth (mm) :	275	275	275	
Layer Depth (mm) :	300	300	300	
Maximum Size (mm) :	19.0	19.0	19.0	
Oversize Wet (%) :	0	0	0	
Oversize Dry (%) :				
Oversize Density (t/m ³) :				
Field Moisture Content (%) :	15.7	15.9	15.9	
Hilf MDR Number :	BN7916	BN7917	BN7918	
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1	
Compactive Effort :	Standard	Standard	Standard	
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1	
Moisture Ratio (%) :	89	85.5	88	
Field Wet Density (t/m ³) :	1.968	1.968	1.968	
Optimum Moisture Content (%) :	17.6	18.6	18.1	
Moisture Variation :	2% (dry)	2.5% (dry)	2% (dry)	
Peak Converted Wet Density (t/m ³) :	2.02	2.02	2.03	
Hilf Density Ratio (%) :	97.5	97.5	97.0	
Minimum Specification :	95	95	95	
Moisture Specification :	-	-	-	
Site Selection :	Client Selected	Client Selected	Client Selected	
Soil Description :	Silty CLAY - Pale Grey-brown	Silty CLAY - Pale Grey-brown	Silty CLAY - Pale Grey-brown	
Remarks :	This report supersedes report BNS173-26.			



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Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 19
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	5/04/2016
Project Name :	Rosewood Green - Stage 1	Order Number :	
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 1 of 1	

Sample Number :	BN7875	BN7876	BN7877
Test Number :			
Sampling Method :	AS 1141.3.1	AS 1141.3.1	AS 1141.3.1
Date Sampled :	16/03/2016	16/03/2016	16/03/2016
Date Tested :	16/03/2016	16/03/2016	16/03/2016
Material Type :	Allotment Fill	Allotment Fill	Allotment Fill
Material Source :	From Site	From Site	From Site
Lot Number :			
Sample Location :	E: 461748.7 N: 6943271.7 RL: 44.5 Desc: Silty Clay - Grey Brown	E: 461736.9 N: 6943278.3 RL: 44.5 Desc: Silty Clay - Grey Brown	E: 461726.3 N: 6943292.3 RL: 44.6 Desc: Silty Clay - Grey Brown
Test Depth (mm) :	275	275	275
Layer Depth (mm) :	300	300	300
Maximum Size (mm) :	19.0	19.0	19.0
Oversize Wet (%) :	0	0	0
Oversize Dry (%) :			
Oversize Density (t/m ³) :			
Field Moisture Content (%) :	20.5	21.0	21.4
Hilf MDR Number :	BN7875	BN7876	BN7877
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1
Compactive Effort :	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1
Moisture Ratio (%) :	80.5	81	90
Field Wet Density (t/m ³) :	2.002	1.988	1.993
Optimum Moisture Content (%) :	25.4	25.8	23.8
Moisture Variation :	4.5% (dry)	4.5% (dry)	2.5% (dry)
Peak Converted Wet Density (t/m ³) :	1.93	1.97	2.02
Hilf Density Ratio (%) :	104.0	100.5	99.0
Minimum Specification :	95	95	95
Moisture Specification :			
Site Selection :			
Soil Description :			
Remarks :	-		



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Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 13
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	4/04/2016
Project Name :	Rosewood Green - Stage 1 - Bulk Earthworks	Order Number :	
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 1 of 1	

Sample Number :	BN7731	BN7732	BN7733	
Test Number :				
Sampling Method :	-	-	-	
Date Sampled :	15/03/2016	15/03/2016	15/03/2016	
Date Tested :	15/03/2016	15/03/2016	15/03/2016	
Material Type :	Allotment Fill	Allotment Fill	Allotment Fill	
Material Source :	From Site	From Site	From Site	
Lot Number :				
Sample Location :	E: 461750.1 N: 6943309.8 RL: 45.4 Desc: Silty clay - Grey/Brown	E: 461741.5 N: 6943309.8 RL: 45.2 Desc: Silty clay - Grey/Brown	E: 461758.9 N: 6943291.1 RL: 45.2 Desc: Silty clay - Grey/Brown	
Test Depth (mm) :	275	275	275	
Layer Depth (mm) :	300	300	300	
Maximum Size (mm) :	19.0	19.0	19.0	
Oversize Wet (%) :	0	0	0	
Oversize Dry (%) :				
Oversize Density (t/m ³) :				
Field Moisture Content (%) :	17.7	17.5	18.0	
Hilf MDR Number :	BN7731	BN7732	BN7733	
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1	
Compactive Effort :	Standard	Standard	Standard	
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1	
Moisture Ratio (%) :	83.5	82	82.5	
Field Wet Density (t/m ³) :	2.037	2.034	2.038	
Optimum Moisture Content (%) :	21.2	21.4	21.8	
Moisture Variation :	3.5% (dry)	3.5% (dry)	3.5% (dry)	
Peak Converted Wet Density (t/m ³) :	1.96	1.96	1.97	
Hilf Density Ratio (%) :	104.0	104.0	103.5	
Minimum Specification :	95	95	95	
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			



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Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 10
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	29/03/2016
Project Name :	Rosewood Green - Stage 1 - Bulk Earthworks	Order Number :	
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 1 of 2	

Sample Number :	BN7722	BN7723	BN7724	BN7725
Test Number :				
Sampling Method :	-	-	-	-
Date Sampled :	11/03/2016	11/03/2016	11/03/2016	4/03/2016
Date Tested :	11/03/2016	11/03/2016	11/03/2016	11/03/2016
Material Type :	Bulk Earthworks	Bulk Earthworks	Bulk Earthworks	Bulk Earthworks
Material Source :	Onsite	Onsite	Onsite	Onsite
Lot Number :				
Sample Location :	E: 461698.5 N: 6943408.0 RL: 48.1 Desc: Silty Clay Brown	E: 461707.6 N: 6943425.3 RL: 48.4 Desc: Silty Clay Brown	E: 461722.5 N: 6943437.4 RL: 48.6 Desc: Silty Clay Brown	E: 461741.5 N: 6943452.6 RL: 48.8 Desc: Silty Clay Brown
Test Depth (mm) :	275	275	275	275
Layer Depth (mm) :	300	300	300	300
Maximum Size (mm) :	19.0	19.0	19.0	19.0
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m ³) :				
Field Moisture Content (%) :	15.6	15.7	15.3	15.4
Hilf MDR Number :	BN7722	BN7723	BN7724	BN7725
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1
Moisture Ratio (%) :	88.5	86.5	86.5	87.5
Field Wet Density (t/m ³) :	1.951	1.951	2.024	2.020
Optimum Moisture Content (%) :	17.6	18.2	17.7	17.6
Moisture Variation :	2% (dry)	2.5% (dry)	2.5% (dry)	2% (dry)
Peak Converted Wet Density (t/m ³) :	2.01	2.00	2.00	2.00
Hilf Density Ratio (%) :	97.5	97.5	101.0	101.0
Minimum Specification :	95	95	95	95
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			



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Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 10
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	29/03/2016
Project Name :	Rosewood Green - Stage 1 - Bulk Earthworks	Order Number :	
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 2 of 2	

Sample Number :	BN7726	BN7727	BN7728	
Test Number :				
Sampling Method :	-	-	-	
Date Sampled :	4/03/2016	11/03/2016	11/03/2016	
Date Tested :	11/03/2016	11/03/2016	11/03/2016	
Material Type :	Bulk Earthworks	Bulk Earthworks	Bulk Earthworks	
Material Source :	Onsite	Onsite	Onsite	
Lot Number :				
Sample Location :	E: 461769.9 N: 6943421.6 RL: 47.7 Desc: Silty Clay Brown	E: 461750.2 N: 6943407.8 RL: 47.5 Desc: Silty Clay Brown	E: 461731.7 N: 6943393.3 RL: 47.3 Desc: Silty Clay Brown	
Test Depth (mm) :	275	275	275	
Layer Depth (mm) :	300	300	300	
Maximum Size (mm) :	19.0	19.0	19.0	
Oversize Wet (%) :	0	0	0	
Oversize Dry (%) :				
Oversize Density (t/m ³) :				
Field Moisture Content (%) :	24.1	24.0	20.7	
Hilf MDR Number :	BN7726	BN7727	BN7728	
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1	
Compactive Effort :	Standard	Standard	Standard	
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1	
Moisture Ratio (%) :	92.5	92	91.5	
Field Wet Density (t/m ³) :	1.985	1.973	1.942	
Optimum Moisture Content (%) :	26.0	26.1	22.6	
Moisture Variation :	2% (dry)	2% (dry)	2% (dry)	
Peak Converted Wet Density (t/m ³) :	2.00	2.01	2.01	
Hilf Density Ratio (%) :	99.0	98.5	96.5	
Minimum Specification :	95	95	95	
Moisture Specification :				
Site Selection :				
Soil Description :				
Remarks :	-			



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Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 9
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	29/03/2016
Project Name :	Rosewood Green - Stage 1 - Bulk Earthworks	Order Number :	
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 1 of 3	

Sample Number :	BN7710	BN7711	BN7712	BN7713
Test Number :				
Sampling Method :	-	-	-	-
Date Sampled :	10/03/2016	10/03/2016	10/03/2016	10/03/2016
Date Tested :	10/03/2016	10/03/2016	10/03/2016	10/03/2016
Material Type :	Bulk Earthworks	Bulk Earthworks	Bulk Earthworks	Bulk Earthworks
Material Source :	Onsite	Onsite	Onsite	Onsite
Lot Number :				
Sample Location :	E: 461837.7 N: 6943448.2 RL: 0.63 Desc: Silty Clay Brown Orange	E: 461836.3 N: 6943450.5 RL: 0.15 Desc: Silty Clay Brown Orange	E: 461826.5 N: 6943473.7 RL: 0.55 Desc: Silty Clay Brown Orange	E: 461828.1 N: 6943473.7 RL: 0.20 Desc: Silty Clay Brown Orange
Test Depth (mm) :	275	275	275	275
Layer Depth (mm) :	300	300	300	300
Maximum Size (mm) :	19.0	19.0	19.0	19.0
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m ³) :				
Field Moisture Content (%) :	20.4	20.1	20.2	19.4
Hilf MDR Number :	BN7710	BN7711	BN7712	BN7713
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1
Moisture Ratio (%) :	91	90.5	101.5	101
Field Wet Density (t/m ³) :	2.026	2.043	1.920	1.924
Optimum Moisture Content (%) :	22.4	22.2	19.9	19.2
Moisture Variation :	2% (dry)	2% (dry)	0.5% (wet)	0% (wet)
Peak Converted Wet Density (t/m ³) :	1.99	2.00	1.96	1.96
Hilf Density Ratio (%) :	101.5	102.5	98.0	98.0
Minimum Specification :	95	95	95	95
Moisture Specification :	-	-	-	-
Site Selection :				
Soil Description :				
Remarks :	-			



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Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 9
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	29/03/2016
Project Name :	Rosewood Green - Stage 1 - Bulk Earthworks	Order Number :	
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 2 of 3	

Sample Number :	BN7714	BN7715	BN7716	BN7717
Test Number :				
Sampling Method :	-	-	-	-
Date Sampled :	10/03/2016	10/03/2016	10/03/2016	10/03/2016
Date Tested :	10/03/2016	10/03/2016	10/03/2016	10/03/2016
Material Type :	Bulk Earthworks	Bulk Earthworks	Bulk Earthworks	Bulk Earthworks
Material Source :	Onsite	Onsite	Onsite	Onsite
Lot Number :				
Sample Location :	E: 461816.4 N: 6943491.2 RL: 0.50 Desc: Silty Clay Brown Orange	E: 461815.1 N: 6943493.2 RL: 0.40 Desc: Silty Clay Brown Orange	E: 461793.6 N: 6943493.2 RL: 0.59 Desc: Silty Clay Brown Orange	E: 461795.1 N: 6943486.4 RL: 0.15 Desc: Silty Clay Brown Orange
Test Depth (mm) :	275	275	275	275
Layer Depth (mm) :	300	300	300	300
Maximum Size (mm) :	19.0	19.0	19.0	19.0
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m ³) :				
Field Moisture Content (%) :	16.0	15.9	16.1	14.5
Hilf MDR Number :	BN7714	BN7715	BN7716	BN7717
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1
Moisture Ratio (%) :	101	101.5	88	88
Field Wet Density (t/m ³) :	1.939	1.930	1.970	1.985
Optimum Moisture Content (%) :	15.8	15.7	18.3	16.5
Moisture Variation :	0% (wet)	0% (wet)	2% (dry)	2% (dry)
Peak Converted Wet Density (t/m ³) :	1.97	1.97	1.99	1.97
Hilf Density Ratio (%) :	98.5	98.0	99.0	101.0
Minimum Specification :	95	95	95	95
Moisture Specification :	-	-	-	-
Site Selection :				
Soil Description :				
Remarks :	-			



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Hilf Density Ratio Report

Client :	Shadforth Civil Contractors	Report Number:	BNS173 - 9
Address :	99 Sandalwood Lane, Forest Glen , QLD, 4556	Report Date :	29/03/2016
Project Name :	Rosewood Green - Stage 1 - Bulk Earthworks	Order Number :	
Project Number :	BNS173	Test Method :	AS1289.5.7.1
Location:	Rosewood , Ipswich	Page 3 of 3	

Sample Number :	BN7718	BN7719	BN7720	BN7721
Test Number :				
Sampling Method :	-	-	-	-
Date Sampled :	10/03/2016	10/03/2016	10/03/2016	10/03/2016
Date Tested :	10/03/2016	10/03/2016	10/03/2016	10/03/2016
Material Type :	Bulk Earthworks	Bulk Earthworks	Bulk Earthworks	Bulk Earthworks
Material Source :	Onsite	Onsite	Onsite	Onsite
Lot Number :				
Sample Location :	E: 461808.3 N: 6943486.4 RL: 0.55 Desc: Silty Clay Brown Orange	E: 461808.9 N: 6947465.1 RL: 0.13 Desc: Silty Clay Brown Orange	E: 461825.0 N: 6943444.0 RL: 0.63 Desc: Silty Clay Brown Orange	E: 461822.9 N: 6943444.8 RL: 0.14 Desc: Silty Clay Brown Orange
Test Depth (mm) :	275	275	275	275
Layer Depth (mm) :	300	300	300	300
Maximum Size (mm) :	19.0	19.0	19.0	19.0
Oversize Wet (%) :	0	0	0	0
Oversize Dry (%) :				
Oversize Density (t/m ³) :				
Field Moisture Content (%) :	14.5	14.2	17.3	17.7
Hilf MDR Number :	BN7718	BN7719	BN7720	BN7721
Hilf MDR Method :	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1	AS1289.5.7.1
Compactive Effort :	Standard	Standard	Standard	Standard
Field Density Method :	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1	AS1289.5.8.1 & 5.7.1
Moisture Method :	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1	AS1289.2.1.1
Moisture Ratio (%) :	88	86.5	89.5	90
Field Wet Density (t/m ³) :	2.019	2.003	2.040	2.054
Optimum Moisture Content (%) :	16.5	16.5	19.3	19.7
Moisture Variation :	2% (dry)	2.5% (dry)	2% (dry)	2% (dry)
Peak Converted Wet Density (t/m ³) :	1.97	1.97	2.00	2.00
Hilf Density Ratio (%) :	102.5	101.5	102.5	103.0
Minimum Specification :	95	95	95	95
Moisture Specification :	-	-	-	-
Site Selection :				
Soil Description :				
Remarks :	-			



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