



LEVEL ONE COMPLIANCE REPORT

Woodlinks Village - Stage 18

PREPARED BY:
PROTEST ENGINEERING

PREPARED FOR:
SHADFORTH CIVIL

PTP/13328 - 0002 - Rev0 | 10 July 2024



Shadforth Civil
99 Sandalwood Lane, Forest Glen
QLD 4556

Project Number: PTP/13328
Letter Number: 0002 - Rev0
Project Name: Woodlinks Village - Stage 18

Attention: Cameron Morison
Email: Cameron.Morison@shadcivil.com.au

Report on Level 1 Earthworks
Proposed Residential Development
Collingwood Drive, Collingwood Park

1. Introduction

This report summarises the results of inspection and testing provided by Protest Engineering (Protest) for the bulk earthworks as part of the Woodlinks Village - Stage 18 project undertaken between 11/01/2024 to 12/06/2024. The works were undertaken at the request of Shadforth Civil.

The scope of inspection and testing undertaken was in general accordance with AS3798-2007 – ‘Guidelines on Earthworks for Commercial and Residential Developments’. As part of the inspection and testing undertaken, Protest provided Level 1 supervision in accordance with Section 8.2 of AS3798-2007. Figure 1 indicates the approximate extent of Level 1 works carried out.



Figure 1: Approximate extent of level 1 works (Image extracted from Nearmap, dated 02/03/2024)

Approximately 15,000m³ of fill was placed on site. Drawing No. 22-0175-102-Rev1 – Bulk Earthworks Layout Plan attached is the bulk earthworks cut to fill plan. The frequency of field density testing adopted for this project was based on AS3798-2007, Table 8.1 – ‘Frequency of Field Density Tests’ with a minimum of one test per 500m³ placed for a Type 1 - Large Scale Operation.

Based on the information provided within the notes of Drawing No. 22-0175-101-Rev1 – *General Notes*, the minimum relative compaction requirements were specified as complying with AS3798-2007, Table 5.1 – ‘*Minimum Relative Compaction*’. A summary of the criteria is shown below in Table 1.

Table 1: Test Request Compaction Specification

Fill Types	Dry Density Ratio
Residential General Fill	>95%

2. Geology

Based on the information provided by the Queensland Geotechnical Database, the site is underlain by the Late Triassic to Early Jurassic Aged Ripley Road Sandstone, and the Quaternary Aged geological formations. An approximate location of the site is outlined in red.

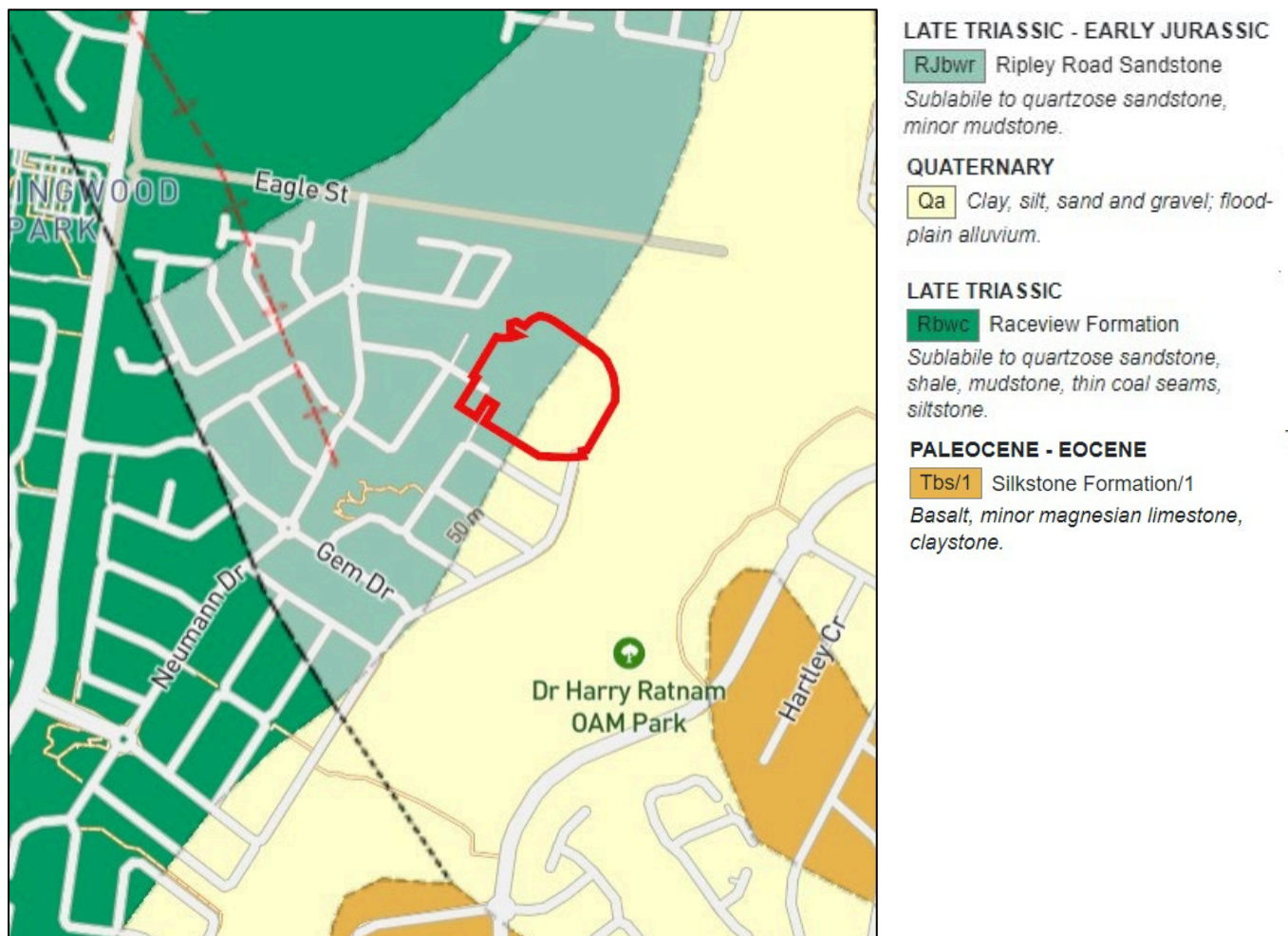


Figure 2: Geological formations map (Image extracted from qgd.org.au)

3. Earthworks Activities

Foundation preparation observed by Protest comprised the removal of topsoil and unsuitable materials across the cut to fill area exposing the underlying natural materials. A proof roll was performed on the natural soils using a padfoot roller or compactor and no noticeable movement was observed on the final pass.



Figure 3: Stripping operations in progress (11/01/2024)

Following successful proof rolling, filling operations comprised the placement and compaction of material obtained from an onsite source, which were typically clay-based soils. Materials were placed onsite in uniform layers not exceeding 300mm thick, with the plant detailed below. The material used as fill was moisture conditioned at the fill source and during placement and blended to achieve suitable moisture content for compaction.

The following heavy plant were used throughout the bulk earthworks component:

- | | | |
|---------------------|------------------|--------------|
| • Padfoot Compactor | • Padfoot Roller | • Excavators |
| • Grader | • Water Truck | • Dump Truck |

A total of forty (40) field density ratio tests were undertaken at locations selected by Protest during the filling operations. Field density testing was carried out using a nuclear gauge and in accordance with the test method outlined in AS1289.5.8.1. The relative compaction was then determined by comparing the recorded field density with the laboratory compaction control test (standard compaction) outlined in test method AS1289.5.7.1.

A summary of the test results is presented in Table 2 with the individual reports attached and the approximate test locations are shown on the marked earthworks layout plan attached. These test locations and levels were not obtained by survey and therefore should only be considered as approximate. Figures 4 and 5 are images that were taken during the earthworks and show general filling operations.



Figure 4: Filling operations in progress (15/01/2024)



Figure 5: Filling operations in progress (16/01/2024)

Table 2. Summary of Density Testing

Item	Compaction	Moisture Variation
No. of tests	40	40
Mean	100.7%	0.19% (Dry of OMC)

(Notes: OMC = Optimum Moisture Content)

4. Compliance

Based on our assessments and testing, it is our opinion that the bulk earthworks placed and compacted at Woodlinks Village - Stage 18 by Shadforth Civil between 11/01/2024 to 12/06/2024 were undertaken in general accordance with AS3798-2007 – ‘Guidelines on Earthworks for Commercial and Residential Developments’ and comply with the above-mentioned specifications. The fill can be considered as Level 1 ‘controlled’ fill as per AS2870-2011 – ‘Residential Slabs and Footings’.

5. Comments

Protest believes consideration should be given to the following:

- This report only certifies the bulk earthworks activities supervised by Protest between 11/01/2024 to 12/06/2024. Protest does not take responsibility for any other bulk earthworks activities that have occurred before or after these dates;
- The installation of services or any activities that may cause disruption of the compacted filling;
- The suitability of the filled land to support the proposed structures; and
- Any variation in filling depth of extent of areas that is not noted within this report or on the individual test report sheets.

6. Limitations

Protest Engineering ("Protest") has prepared this report for the bulk earthworks at Woodlinks Village - Stage 18. This report was produced for the sole use of Shadforth Civil. This Report should not be used or relied upon for any other purpose without Protest's prior written consent. Protest does not accept any responsibility or liability in any way whatsoever for the use or reliance of this Report by anyone other than the Client, its designers, its clients, and relevant statutory authorities or by anyone else for any purpose other than that for which it has been prepared. In the preparation of this report Protest has relied upon information provided by the client and/or their agents.

Assessments of material quality such as soaked CBR and site classifications are excluded from this commission. This report is not to be relied upon for settlement analysis and soft soils engineering advice. This is beyond the scope of this report and outside our engagement.

Our onsite attendance specifically excludes assessments of fill material quality and engineering properties that are outside the requirements of AS3798-2007, including soil or fill reactivity and soaked CBR values. We note that the fill materials used may result in unfavourable site classifications and low subgrade design strengths.

The results provided in this report are indicative of the subsurface conditions on the site only at the specific sampling or testing locations, and then only to the depths investigated along with the time the work was carried out. It is known that subsurface conditions can suddenly change due to irregular geological processes and as a result of human influences. Such changes may occur after Protest field testing has been completed.

Certain ground conditions and the materials behaviour observed or contained at the test locations may alter from those which may be encountered elsewhere on the site. Should variations in subsurface conditions be encountered, then additional advice should be sought from Protest and, if required, amendments made.

Protest cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome, or conclusion given in this report.

Footings and ground slabs for any structures constructed over natural soils or controlled fill should be designed to accommodate the characteristic ground surface movements and settlement potential. Assessments of these design parameters are beyond the scope of this Report.

The Following should also be considered:

- This report is not a SITE CLASS REPORT as per AS2870-2011 and not a Geotechnical Site Investigation report as per AS1726-2017;
- The shrink/swell movements which can occur in the residual silty clays due to weather related natural moisture changes by the reduction in surface evaporation subsequent to covering the site with buildings and pavements. As outlined in AS2870-2011 – '*Residential Slabs and Footings –Constructions*';
- It should be noted that there is a possibility that compaction levels may have increased during placement of subsequent layers especially when there have been fully laden earthmoving equipment frequently travel across the fill areas exerting high traffic loads; and
- All compacted filling is subject to decompaction phenomenon.

Protest does not accept any liability or responsibility whatsoever for, or in respect of, any use or reliance upon this Report by any other party. Protest is not obliged to enter into discussions with any third party in respect of this Report.

We trust that the above information is suitable for your present requirements. Should you have any queries, please do not hesitate to contact the undersigned.

Regards,

Written By:



Jay Nicholas

Technician

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Reviewed By:



Simon Wynne (RPEQ 17390)

Team Lead

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- Attachments:
1. Site Plan and Testing Locations;
 2. Density Reports;



GEOTECHNICAL // TESTING SERVICES // STRUCTURAL

Attachment 1
Site Plan and
Testing Locations





GEOTECHNICAL // TESTING SERVICES // STRUCTURAL



Attachment 2

Density Reports



Soil Compaction and Density Tests Report - Compaction Control

Client :	Shadforth		Report Number :	SR/PTP/13328 - 1/1		
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD		Report Date :	19/02/2024		
Project Name :	Woodlinks Village - Stage 18		Test Request :	-		
Project Number :	PTP/13328		Page 1 of 1			
Location :	Collingwood Park					
Test Methods :	AS1289.5.4.1, AS1289.5.8.1, AS1289.2.1.1, AS1289.5.7.1,					
Sample Number :	S/236423	S/236424				
Date Tested :	12/01/2024	12/01/2024				
Material Source :	On-site	On-site				
For use as :	General Fill	General Fill				
Test / Layer Depths :	150 / 175	150 / 175				
Sampling Method :	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b				
Time :	10:16	10:23				
Lot Number :	-	-				
Location 1 :	E 486585	E 486594				
Location 2 :	N 6944130	N 6944111				
Location 3 :	1.8m BFL	1.8m BFL				
Location 4 :	-	-				
Test Fraction (mm) :	< 19mm	< 19mm				
Oversize Wet :	8%	0%				
Oversize Density - Dry (t/m³) :	2.44	-				
Assigned MDR (Yes/No) :	No	No				
MDR Sample Number :	S/236423	S/236424				
MDR Test Date :	15/01/2024	15/01/2024				
Compaction Type :	Standard	Standard				
Soil Description :	Sandy Clay	Sandy Clay				
MDR Test Results						
PCWD (t/m³) :	2.08	2.12				
Moisture Variation :	1.0%	1.5%				
ADJ PCWD (t/m³) :	2.10	-				
ADJ Moisture Variation :	1.0%	-				
Moisture Test Results						
Field Moisture Content :	10.0%	11.5%				
Moisture Specification :	-	-				
Variation from OMC :	1.0% Dry of OMC	1.5% Dry of OMC				
Relative Moisture Ratio (Q250) :	-	-				
Moisture Ratio :	N/A	N/A				
Density Test Results						
Field Wet Density (t/m³) :	2.18	2.17				
Density Specification :	95%	95%				
Wet Density Ratio :	104.0%	102.5%				
Remarks :						
 <p>Accredited for Compliance with ISO/ IEC 17025 - Testing Protest Engineering (Darra) Accreditation Number - 2851 Base Laboratory Site Number - 2844 - Darra Base Laboratory Address - 1/35 Limestone Street, Darra, QLD 4076</p>			<p>APPROVED SIGNATORY</p>  <p>Rhys Vanderkly - Signatory</p>			



Soil Compaction and Density Tests Report - Compaction Control

Client :	Shadforth		Report Number :	SR/PTP/13328 - 2/1		
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD		Report Date :	19/02/2024		
Project Name :	Woodlinks Village - Stage 18		Test Request :	-		
Project Number :	PTP/13328		Page 1 of 1			
Location :	Collingwood Park					
Test Methods :	AS1289.5.4.1, AS1289.5.8.1, AS1289.2.1.1, AS1289.5.7.1,					
Sample Number :	S/236728	S/236729				
Date Tested :	16/01/2024	16/01/2024				
Material Source :	On-site	On-site				
For use as :	General Fill	General Fill				
Test / Layer Depths :	150 / 175	150 / 175				
Sampling Method :	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b				
Time :	09:08	09:13				
Lot Number :	-	-				
Location 1 :	E 486589	E 486574				
Location 2 :	N 6944121	N 6944111				
Location 3 :	1.5m BFL	1.0m BFL				
Location 4 :	-	-				
Test Fraction (mm) :	< 19mm	< 19mm				
Oversize Wet :	0%	0%				
Oversize Density - Dry (t/m³) :	-	-				
Assigned MDR (Yes/No) :	No	No				
MDR Sample Number :	S/236728	S/236729				
MDR Test Date :	17/01/2024	17/01/2024				
Compaction Type :	Standard	Standard				
Soil Description :	Silty Clay gravel	Silty clay gravel				
MDR Test Results						
PCWD (t/m³) :	2.22	2.20				
Moisture Variation :	-2.0%	0.5%				
ADJ PCWD (t/m³) :	-	-				
ADJ Moisture Variation :	-	-				
Moisture Test Results						
Field Moisture Content :	16.5%	13.0%				
Moisture Specification :	-	-				
Variation from OMC :	2.0% Wet of OMC	0.5% Dry of OMC				
Relative Moisture Ratio (Q250) :	-	-				
Moisture Ratio :	N/A	N/A				
Density Test Results						
Field Wet Density (t/m³) :	2.23	2.24				
Density Specification :	95%	95%				
Wet Density Ratio :	100.0%	101.5%				
Remarks :						
 <p>Accredited for Compliance with ISO/ IEC 17025 - Testing Protest Engineering (Darra) Accreditation Number - 2851 Base Laboratory Site Number - 2844 - Darra Base Laboratory Address - 1/35 Limestone Street, Darra, QLD 4076</p>			<p>APPROVED SIGNATORY</p>  <p>Rhys Vanderkly - Signatory</p>			



Soil Compaction and Density Tests Report - Compaction Control

Client :	Shadforth			Report Number :	SR/PTP/13328 - 3/1	
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD			Report Date :	19/02/2024	
Project Name :	Woodlinks Village - Stage 18			Test Request :	-	
Project Number :	PTP/13328			Page 1 of 1		
Location :	Collingwood Park					
Test Methods :	AS1289.5.4.1, AS1289.5.8.1, AS1289.2.1.1, AS1289.5.7.1,					
Sample Number :	S/237064	S/237065	S/237066	S/237067	S/237068	S/237069
Date Tested :	19/01/2024	19/01/2024	19/01/2024	19/01/2024	19/01/2024	19/01/2024
Material Source :	On-site	On-site	On-site	On-site	On-site	On-site
For use as :	General Fill	General Fill	General Fill	General Fill	General Fill	General Fill
Test / Layer Depths :	150 / 175	150 / 175	150 / 175	150 / 175	150 / 175	150 / 175
Sampling Method :	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b
Time :	10:07	10:12	10:17	10:22	10:32	11:37
Lot Number :	-	-	-	-	-	-
Location 1 :	E 486577	E 486586	E 486585	E 486569	E 486546	E 486557
Location 2 :	N 6944107	N 6944098	N 6944091	N 6944089	N 6944124	N 6944094
Location 3 :	1.0m BFL	1.0m BFL	1.0m BFL	0.5m BFL	Finish Level	Finish Level
Location 4 :	-	-	-	-	-	-
Test Fraction (mm) :	< 19mm	< 19mm	< 19mm	< 19mm	< 19mm	< 19mm
Oversize Wet :	11%	9%	8%	7%	8%	8%
Oversize Density - Dry (t/m³) :	2.31	2.31	2.30	2.30	2.29	2.28
Assigned MDR (Yes/No) :	No	No	No	No	No	No
MDR Sample Number :	S/237064	S/237065	S/237066	S/237067	S/237068	S/237069
MDR Test Date :	22/01/2024	22/01/2024	22/01/2024	22/01/2024	22/01/2024	23/01/2024
Compaction Type :	Standard	Standard	Standard	Standard	Standard	Standard
Soil Description :	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay
MDR Test Results						
PCWD (t/m³) :	2.16	2.16	2.15	2.16	2.16	2.18
Moisture Variation :	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%
ADJ PCWD (t/m³) :	2.18	2.17	2.16	2.17	2.17	2.18
ADJ Moisture Variation :	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%
Moisture Test Results						
Field Moisture Content :	10.5%	11.0%	11.0%	11.5%	9.5%	9.0%
Moisture Specification :	-	-	-	-	-	-
Variation from OMC :	0.5% Wet of OMC	0.5% Wet of OMC	0.5% Wet of OMC	0.5% Wet of OMC	0.5% Wet of OMC	0.5% Wet of OMC
Relative Moisture Ratio (Q250) :	-	-	-	-	-	-
Moisture Ratio :	N/A	N/A	N/A	N/A	N/A	N/A
Density Test Results						
Field Wet Density (t/m³) :	2.19	2.21	2.23	2.22	2.25	2.25
Density Specification :	95%	95%	95%	95%	95%	95%
Wet Density Ratio :	100.5%	101.5%	103.0%	102.5%	104.0%	103.0%
Remarks :						
 <p>Accredited for Compliance with ISO/ IEC 17025 - Testing Protest Engineering (Darra) Accreditation Number - 2851 Base Laboratory Site Number - 2844 - Darra Base Laboratory Address - 1/35 Limestone Street, Darra, QLD 4076</p>				<p>APPROVED SIGNATORY</p>  <p>Rhys Vanderkly - Signatory</p>		



Soil Compaction and Density Tests Report - Compaction Control

Client :	Shadforth		Report Number :	SR/PTP/13328 - 4/1		
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD		Report Date :	19/02/2024		
Project Name :	Woodlinks Village - Stage 18		Test Request :	-		
Project Number :	PTP/13328		Page 1 of 1			
Location :	Collingwood Park					
Test Methods :	AS1289.5.4.1, AS1289.5.8.1, AS1289.2.1.1, AS1289.5.7.1,					
Sample Number :	S/237070	S/237071				
Date Tested :	19/01/2024	19/01/2024				
Material Source :	On-site	On-site				
For use as :	General Fill	General Fill				
Test / Layer Depths :	150 / 175	150 / 175				
Sampling Method :	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b				
Time :	11:42	11:47				
Lot Number :	-	-				
Location 1 :	E 486534	E 486519				
Location 2 :	N 6944096	N 6944102				
Location 3 :	0.5m BFL	0.5m BFL				
Location 4 :	-	-				
Test Fraction (mm) :	< 19mm	< 19mm				
Oversize Wet :	0%	0%				
Oversize Density - Dry (t/m³) :	-	-				
Assigned MDR (Yes/No) :	No	No				
MDR Sample Number :	S/237070	S/237071				
MDR Test Date :	22/01/2024	22/01/2024				
Compaction Type :	Standard	Standard				
Soil Description :	silty clay gravel	Silty clay gravel				
MDR Test Results						
PCWD (t/m³) :	2.24	2.23				
Moisture Variation :	1.0%	1.5%				
ADJ PCWD (t/m³) :	-	-				
ADJ Moisture Variation :	-	-				
Moisture Test Results						
Field Moisture Content :	10.0%	9.5%				
Moisture Specification :	-	-				
Variation from OMC :	1.0% Dry of OMC	1.5% Dry of OMC				
Relative Moisture Ratio (Q250) :	-	-				
Moisture Ratio :	N/A	N/A				
Density Test Results						
Field Wet Density (t/m³) :	2.21	2.25				
Density Specification :	95%	95%				
Wet Density Ratio :	98.5%	101.0%				
Remarks :						
 <p>Accredited for Compliance with ISO/ IEC 17025 - Testing Protest Engineering (Darra) Accreditation Number - 2851 Base Laboratory Site Number - 2844 - Darra Base Laboratory Address - 1/35 Limestone Street, Darra, QLD 4076</p>			<p>APPROVED SIGNATORY</p>  <p>Rhys Vanderkly - Signatory</p>			



Soil Compaction and Density Tests Report - Compaction Control

Client :	Shadforth				Report Number :	SR/PTP/13328 - 5/1	
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD				Report Date :	19/02/2024	
Project Name :	Woodlinks Village - Stage 18				Test Request :	-	
Project Number :	PTP/13328				Page 1 of 1		
Location :	Collingwood Park						
Test Methods :	AS1289.5.4.1, AS1289.5.8.1, AS1289.2.1.1, AS1289.5.7.1,						
Sample Number :	S/237142	S/237143	S/237144	S/237145			
Date Tested :	22/01/2024	22/01/2024	22/01/2024	22/01/2024			
Material Source :	On-site	On-site	On-site	On-site			
For use as :	General Fill	General Fill	General Fill	General Fill			
Test / Layer Depths :	150 / 175	150 / 175	150 / 175	150 / 175			
Sampling Method :	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b			
Time :	09:01	09:06	09:11	09:16			
Lot Number :	-	-	-	-			
Location 1 :	E 486537	E 486531	E 486489	E 486502			
Location 2 :	N 6944095	N 6944086	N 6944113	N 6944121			
Location 3 :	0.5m BFL	Finish Level	Finish Level	Finish Level			
Location 4 :	-	-	-	-			
Test Fraction (mm) :	< 19mm	< 19mm	< 19mm	< 19mm			
Oversize Wet :	0%	0%	0%	0%			
Oversize Density - Dry (t/m³) :	-	-	-	-			
Assigned MDR (Yes/No) :	No	No	No	No			
MDR Sample Number :	S/237142	S/237143	S/237144	S/237145			
MDR Test Date :	23/01/2024	23/01/2024	23/01/2024	23/01/2024			
Compaction Type :	Standard	Standard	Standard	Standard			
Soil Description :	silty clay gravel	silty clay gravel	silty clay gravel	silty clay gravel			
MDR Test Results							
PCWD (t/m³) :	2.24	2.24	2.26	2.24			
Moisture Variation :	-0.5%	-1.5%	-0.5%	-1.0%			
ADJ PCWD (t/m³) :	-	-	-	-			
ADJ Moisture Variation :	-	-	-	-			
Moisture Test Results							
Field Moisture Content :	10.0%	11.0%	10.5%	11.0%			
Moisture Specification :	-	-	-	-			
Variation from OMC :	0.5% Wet of OMC	1.5% Wet of OMC	0.5% Wet of OMC	1.0% Wet of OMC			
Relative Moisture Ratio (Q250) :	-	-	-	-			
Moisture Ratio :	N/A	N/A	N/A	N/A			
Density Test Results							
Field Wet Density (t/m³) :	2.25	2.27	2.24	2.26			
Density Specification :	95%	95%	95%	95%			
Wet Density Ratio :	100.5%	101.5%	99.0%	101.0%			
Remarks :							
 <p>Accredited for Compliance with ISO/ IEC 17025 - Testing Protest Engineering (Darra) Accreditation Number - 2851 Base Laboratory Site Number - 2844 - Darra</p> <p>Base Laboratory Address - 1/35 Limestone Street, Darra, QLD 4076</p>				<p>APPROVED SIGNATORY</p>  <p>Rhys Vanderkly - Signatory</p>			



Soil Compaction and Density Tests Report - Compaction Control

Client :	Shadforth			Report Number :	SR/PTP/13328 - 6/1	
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD			Report Date :	19/02/2024	
Project Name :	Woodlinks Village - Stage 18			Test Request :	-	
Project Number :	PTP/13328			Page 1 of 1		
Location :	Collingwood Park					
Test Methods :	AS1289.5.4.1, AS1289.5.8.1, AS1289.2.1.1, AS1289.5.7.1,					
Sample Number :	S/237641	S/237642	S/237643	S/237644	S/237645	S/237646
Date Tested :	24/01/2024	24/01/2024	24/01/2024	24/01/2024	24/01/2024	24/01/2024
Material Source :	On-site	On-site	On-site	On-site	On-site	On-site
For use as :	General Fill	General Fill	General Fill	General Fill	General Fill	General Fill
Test / Layer Depths :	150 / 175	150 / 175	150 / 175	150 / 175	150 / 175	150 / 175
Sampling Method :	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b
Time :	10:00	10:05	10:10	10:15	10:20	10:25
Lot Number :	-	-	-	-	-	-
Location 1 :	E 486523	E 486502	E 486525	E 486542	E 486558	E 486503
Location 2 :	N 6944074	N 6944078	N 6944068	N 6944066	N 6944054	N 6944133
Location 3 :	Finish Level	Finish Level	Finish Level	Finish Level	Finish Level	Finish Level
Location 4 :	-	-	-	-	-	-
Test Fraction (mm) :	< 19mm	< 19mm	< 19mm	< 19mm	< 19mm	< 19mm
Oversize Wet :	0%	0%	0%	0%	0%	0%
Oversize Density - Dry (t/m³) :	-	-	-	-	-	-
Assigned MDR (Yes/No) :	No	No	No	No	No	No
MDR Sample Number :	S/237641	S/237642	S/237643	S/237644	S/237645	S/237646
MDR Test Date :	29/01/2024	29/01/2024	29/01/2024	29/01/2024	29/01/2024	29/01/2024
Compaction Type :	Standard	Standard	Standard	Standard	Standard	Standard
Soil Description :	Silty clay sand	Silty clay sand	Silty clay sand	Silty clay sand	Silty clay sand	Silty clay sandy
MDR Test Results						
PCWD (t/m³) :	2.16	2.20	2.18	2.16	2.17	2.19
Moisture Variation :	-0.5%	-1.0%	-0.5%	-0.5%	-1.0%	-0.5%
ADJ PCWD (t/m³) :	-	-	-	-	-	-
ADJ Moisture Variation :	-	-	-	-	-	-
Moisture Test Results						
Field Moisture Content :	12.5%	11.5%	12.0%	13.0%	13.0%	11.5%
Moisture Specification :	-	-	-	-	-	-
Variation from OMC :	0.5% Wet of OMC	1.0% Wet of OMC	0.5% Wet of OMC	0.5% Wet of OMC	1.0% Wet of OMC	0.5% Wet of OMC
Relative Moisture Ratio (Q250) :	-	-	-	-	-	-
Moisture Ratio :	N/A	N/A	N/A	N/A	N/A	N/A
Density Test Results						
Field Wet Density (t/m³) :	2.13	2.14	2.14	2.14	2.09	2.13
Density Specification :	95%	95%	95%	95%	95%	95%
Wet Density Ratio :	98.5%	97.5%	98.5%	99.0%	96.0%	97.5%
Remarks :						
 <p>Accredited for Compliance with ISO/ IEC 17025 - Testing Protest Engineering (Darra) Accreditation Number - 2851 Base Laboratory Site Number - 2844 - Darra</p> <p>Base Laboratory Address - 1/35 Limestone Street, Darra, QLD 4076</p>				<p>APPROVED SIGNATORY</p>  <p>Rhys Vanderkly - Signatory</p>		



Soil Compaction and Density Tests Report - Compaction Control

Client :	Shadforth		Report Number :	SR/PTP/13328 - 7/1		
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD		Report Date :	19/02/2024		
Project Name :	Woodlinks Village - Stage 18		Test Request :	-		
Project Number :	PTP/13328		Page 1 of 1			
Location :	Collingwood Park					
Test Methods :	AS1289.5.4.1, AS1289.5.8.1, AS1289.2.1.1, AS1289.5.7.1,					
Sample Number :	S/237647	S/237648				
Date Tested :	24/01/2024	24/01/2024				
Material Source :	On-site	On-site				
For use as :	General Fill	General Fill				
Test / Layer Depths :	150 / 175	150 / 175				
Sampling Method :	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b				
Time :	10:30	10:35				
Lot Number :	-	-				
Location 1 :	E 486517	E 486521				
Location 2 :	N 6944145	N 6944156				
Location 3 :	Finish Level	Finish Level				
Location 4 :	-	-				
Test Fraction (mm) :	< 19mm	< 19mm				
Oversize Wet :	0%	0%				
Oversize Density - Dry (t/m ³) :	-	-				
Assigned MDR (Yes/No) :	No	No				
MDR Sample Number :	S/237647	S/237648				
MDR Test Date :	30/01/2024	30/01/2024				
Compaction Type :	Standard	Standard				
Soil Description :	Gravelly Clay	Gravelly Clay				
MDR Test Results						
PCWD (t/m ³) :	2.19	2.18				
Moisture Variation :	-2.0%	-2.0%				
ADJ PCWD (t/m ³) :	-	-				
ADJ Moisture Variation :	-	-				
Moisture Test Results						
Field Moisture Content :	13.0%	14.5%				
Moisture Specification :	-	-				
Variation from OMC :	2.0% Wet of OMC	2.0% Wet of OMC				
Relative Moisture Ratio (Q250) :	-	-				
Moisture Ratio :	N/A	N/A				
Density Test Results						
Field Wet Density (t/m ³) :	2.12	2.13				
Density Specification :	95%	95%				
Wet Density Ratio :	97.0%	97.5%				
Remarks :						
 <p>Accredited for Compliance with ISO/ IEC 17025 - Testing Protest Engineering (Darra) Accreditation Number - 2851 Base Laboratory Site Number - 2844 - Darra Base Laboratory Address - 1/35 Limestone Street, Darra, QLD 4076</p>			<p>APPROVED SIGNATORY</p>  <p>Rhys Vanderkly - Signatory</p>			

Soil Compaction and Density Tests Report - Compaction Control

Client :	Shadforth				Report Number :	SR/PTP/13328 - 15/1	
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD				Report Date :	10/06/2024	
Project Name :	Woodlinks Village - Stage 18				Test Request :	-	
Project Number :	PTP/13328				Page 1 of 1		
Location :	Collingwood Park						
Test Methods :	AS1289.5.4.1, AS1289.5.8.1, AS1289.2.1.1, AS1289.5.7.1,						
Sample Number :	S/254618	S/254619	S/254620	S/254621			
Date Tested :	4/06/2024	4/06/2024	4/06/2024	4/06/2024			
Material Source :	Onsite	Onsite	Onsite	Onsite			
For use as :	General Fill	General Fill	General Fill	General Fill			
Test / Layer Depths :	175 / 200	175 / 200	175 / 200	175 / 200			
Sampling Method :	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b			
Time :	07:25	07:28	07:31	07:35			
Lot Number :	-	-	-	-			
Location 1 :	E 486420	E 486429	E 486440	E 486446			
Location 2 :	N 6944159	N 6944174	N 6944180	N 6944195			
Location 3 :	Finish Level	Finish Level	Finish Level	Finish Level			
Location 4 :	-	-	-	-			
Test Fraction (mm) :	< 19mm	< 19mm	< 19mm	< 19mm			
Oversize Wet :	0%	0%	0%	0%			
Oversize Density - Dry (t/m ³) :	-	-	-	-			
Assigned MDR (Yes/No) :	No	No	No	No			
MDR Sample Number :	S/254618	S/254619	S/254620	S/254621			
MDR Test Date :	7/06/2024	7/06/2024	6/06/2024	7/06/2024			
Compaction Type :	HILF-STD	HILF-STD	HILF-STD	HILF-STD			
Soil Description :	Gravelly CLAY	Gravelly CLAY	Gravelly CLAY	Gravelly CLAY			
MDR Test Results							
PCWD (t/m ³) :	2.13	2.12	2.14	2.11			
Moisture Variation :	0.0%	0.5%	0.0%	3.0%			
ADJ PCWD (t/m ³) :	-	-	-	-			
ADJ Moisture Variation :	-	-	-	-			
Moisture Test Results :							
Field Moisture Content :	11.5%	13.5%	13.5%	11.5%			
Moisture Specification :	-	-	-	-			
Variation from OMC :	At OMC	0.5% Dry of OMC	At OMC	3.0% Dry of OMC			
Moisture Ratio :	N/A	N/A	N/A	N/A			
Density Test Results							
Field Wet Density (t/m ³) :	2.10	2.20	2.15	2.11			
Density Specification :	95%	95%	95%	95%			
Wet Density Ratio :	99.0%	104.0%	100.5%	100.0%			
Remarks :							
<div>  <p> <small>Note: The results contained in this report relate only to the item/s that were tested/sampled</small> Accredited for Compliance with ISO/ IEC 17025 - Testing Protest Engineering (Darra) Accreditation Number - 2851 Base Laboratory Site Number - 2844 - Darra Base Laboratory Address - 1-2/35 Limestone Street, Darra, 4076, QLD </p> </div> <div> <p>APPROVED SIGNATORY</p>  <p>Timothy Watson - Signatory</p> </div>							

Soil Compaction and Density Tests Report - Compaction Control

Client :	Shadforth			Report Number :	SR/PTP/13328 - 16/1	
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD			Report Date :	11/06/2024	
Project Name :	Woodlinks Village - Stage 18			Test Request :	-	
Project Number :	PTP/13328			Page 1 of 1		
Location :	Collingwood Park					
Test Methods :	AS1289.5.4.1, AS1289.5.8.1, AS1289.2.1.1, AS1289.5.7.1,					
Sample Number :	S/254363	S/254364	S/254365	S/254366	S/254367	S/254368
Date Tested :	31/05/2024	31/05/2024	31/05/2024	31/05/2024	31/05/2024	31/05/2024
Material Source :	Onsite	Onsite	Onsite	Onsite	Onsite	Onsite
For use as :	General Fill	General Fill	General Fill	General Fill	General Fill	General Fill
Test / Layer Depths :	150 / 175	150 / 175	150 / 175	150 / 175	150 / 175	150 / 175
Sampling Method :	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b
Time :	10:00	10:10	10:20	10:30	10:40	10:50
Lot Number :	-	-	-	-	-	-
Location 1 :	E 486459	E 486468	E 486474	E 486491	E 486497	E 486510
Location 2 :	N 6944098	N 6944080	N 6944067	N 6944076	N 6944064	N 6944056
Location 3 :	Finish Level	Finish Level	Finish Level	Finish Level	Finish Level	Finish Level
Location 4 :	-	-	-	-	-	-
Test Fraction (mm) :	< 19mm	< 19mm	< 19mm	< 19mm	< 19mm	< 19mm
Oversize Wet :	9%	9%	2%	9%	10%	6%
Oversize Density - Dry (t/m³) :	2.60	2.41	2.85	2.55	2.55	2.57
Assigned MDR (Yes/No) :	No	No	No	No	No	No
MDR Sample Number :	S/254363	S/254364	S/254365	S/254366	S/254367	S/254368
MDR Test Date :	6/06/2024	6/06/2024	6/06/2024	6/06/2024	6/06/2024	6/06/2024
Compaction Type :	HILF-STD	HILF-STD	HILF-STD	HILF-STD	HILF-STD	HILF-STD
Soil Description :	(CL) Sandy CLAY, Low Plasticity, Brown, Moist	(CL) Sandy CLAY, Low Plasticity, Brown, Moist	(CL) Sandy CLAY, Low Plasticity, Brown, Moist	(CL) Sandy CLAY, Low Plasticity, Brown, Moist	(CL) Sandy CLAY, Low Plasticity, Brown, Moist	(CL) Sandy CLAY, Low Plasticity, Brown, Moist
MDR Test Results						
PCWD (t/m³) :	2.08	2.08	2.06	2.04	2.03	2.07
Moisture Variation :	2.5%	2.5%	2.5%	2.0%	2.5%	2.0%
ADJ PCWD (t/m³) :	2.11	2.11	2.07	2.08	2.07	2.10
ADJ Moisture Variation :	2.0%	2.0%	2.5%	2.0%	2.5%	2.0%
Moisture Test Results :						
Field Moisture Content :	11.0%	10.0%	9.5%	11.0%	9.5%	10.5%
Moisture Specification :	-	-	-	-	-	-
Variation from OMC :	2.0% Dry of OMC	2.0% Dry of OMC	2.5% Dry of OMC	2.0% Dry of OMC	2.5% Dry of OMC	2.0% Dry of OMC
Moisture Ratio :	N/A	N/A	N/A	N/A	N/A	N/A
Density Test Results						
Field Wet Density (t/m³) :	2.11	2.12	2.09	2.09	2.08	2.11
Density Specification :	95%	95%	95%	95%	95%	95%
Wet Density Ratio :	100.0%	100.5%	101.0%	100.5%	100.0%	100.5%
Remarks :						
 <p>Note: The results contained in this report relate only to the item/s that were tested/sampled</p> <p>Accredited for Compliance with ISO/ IEC 17025 - Testing</p> <p>Protest Engineering (Gold Coast) Accreditation Number - 19667</p> <p>Base Laboratory Site Number - 22838 - Gold Coast</p> <p>Base Laboratory Address - 8/36 Blanck Street, Ormeau, 4208, QLD</p>				<p>APPROVED SIGNATORY</p>  <p>Joshua Andres - Signatory</p>		

Soil Compaction and Density Tests Report - Compaction Control

Client :	Shadforth	Report Number :	SR/PTP/13328 - 17/1
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD	Report Date :	17/06/2024
Project Name :	Woodlinks Village - Stage 18	Test Request :	-
Project Number :	PTP/13328	Page 1 of 1	
Location :	Collingwood Park		

Test Methods :	AS1289.5.4.1, AS1289.5.8.1, AS1289.2.1.1, AS1289.5.7.1,					
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Sample Number :	S/256335	S/256336	S/256337	S/256338	S/256339	S/256340
Date Tested :	12/06/2024	12/06/2024	12/06/2024	12/06/2024	12/06/2024	12/06/2024
Material Source :	Onsite	Onsite	Onsite	Onsite	Onsite	Onsite
For use as :	General Fill	General Fill	General Fill	General Fill	General Fill	General Fill
Test / Layer Depths :	175 / 200	175 / 200	175 / 200	175 / 200	175 / 200	175 / 200

Sampling Method :	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b
Time :	11:58	12:12	12:28	12:43	12:48	12:53
Lot Number :	-	-	-	-	-	-
Location 1 :	E 486444	E 486473	E 486441	E 486566	E 486557	E 486529
Location 2 :	N 6944120	N 6944137	N 6944102	N 6944076	N 6944179	N 6944183
Location 3 :	Finish Level	Finish Level	Finish Level	Finish Level	Finish Level	Finish Level
Location 4 :	-	-	-	-	-	-



Test Fraction (mm) :	< 19mm	< 19mm	< 19mm	< 19mm	< 19mm	< 19mm
Oversize Wet :	0%	0%	0%	0%	0%	0%
Oversize Density - Dry (t/m³) :	-	-	-	-	-	-
Assigned MDR (Yes/No) :	No	No	No	No	No	No
MDR Sample Number :	S/256335	S/256336	S/256337	S/256338	S/256339	S/256340
MDR Test Date :	14/06/2024	15/06/2024	14/06/2024	14/06/2024	14/06/2024	15/06/2024
Compaction Type :	HILF-STD	HILF-STD	HILF-STD	HILF-STD	HILF-STD	HILF-STD
Soil Description :	GC - Gravelly CLAY - Light Brown	GC - Gravelly CLAY - Light Brown	GC - Gravelly CLAY - Light Brown	GC - Gravelly CLAY - Light Brown	GC - Gravelly CLAY - Light Brown	GC - Gravelly CLAY - Light Brown

MDR Test Results						
PCWD (t/m3) :	2.13	2.14	2.20	2.18	2.20	2.19
Moisture Variation :	1.0%	0.5%	1.0%	0.0%	-1.0%	0.5%
ADJ PCWD (t/m3) :	-	-	-	-	-	-
ADJ Moisture Variation :	-	-	-	-	-	-

Moisture Test Results :						
Field Moisture Content :	10.0%	9.5%	6.5%	6.0%	7.0%	6.0%
Moisture Specification :	-	-	-	-	-	-
Variation from OMC :	1.0% Dry of OMC	0.5% Dry of OMC	1.0% Dry of OMC	0.0% Dry of OMC	1.0% Wet of OMC	0.5% Dry of OMC
Moisture Ratio :	N/A	N/A	N/A	N/A	N/A	N/A

Density Test Results						
Field Wet Density (t/m3) :	2.18	2.19	2.25	2.27	2.26	2.22
Density Specification :	95%	95%	95%	95%	95%	95%
Wet Density Ratio :	102.5%	102.0%	102.5%	103.5%	102.5%	101.5%

Remarks :	
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 <p>Note: The results contained in this report relate only to the item/s that were tested/sampled Accredited for Compliance with ISO/ IEC 17025 - Testing Protest Engineering (Darra) Accreditation Number - 2851 Base Laboratory Site Number - 2844 - Darra Base Laboratory Address - 1-2/35 Limestone Street, Darra, 4076, QLD</p>	<p>APPROVED SIGNATORY</p>  <p>Timothy Watson - Signatory</p>
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