

LEVEL ONE COMPLIANCE REPORT

The Pocket Stage 5A

PREPARED BY:
PROTEST ENGINEERING

PREPARED FOR:
SHADFORTH CIVIL

PTP/12227 - Rev0 | 13 October 2023



Shadforth Civil
99 Sandalwood Lane, Forest Glen
QLD 4556

Project Number: PTP/ 12227
Letter Number: 0001 – Rev0
Project Name: The Pocket Stage 5A

Attention: Cameron Morison

Email: Cameron.Morison@shadcivil.com.au

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

1. Introduction

This report summarises the results of inspection and testing provided by Protest Engineering (Protest) for the bulk earthworks as part of the The Pocket Stage 5A project undertaken between June and August 2023. The works were undertaken at the request of Shadforth Civil (the client).

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 from Nearmap ©)



Approximately 5,750 m³ of fill was placed on site. Colliers Drawing No. 20-0240-5102-Rev2 – *Bulk Earthworks Layout Plan* attached is the bulk earthworks layout plan. The frequency of field density testing adopted for this project was based on AS3798-2007, Table 8.1 with a minimum of one test per 500 m³ placed for a *Type 1 – Large Scale Operation*.

Based on the information provided within the Colliers Bulk Earthworks Notes (Drawing No. 20-0240-5101-Rev2 – General Notes), the minimum relative compaction requirements were specified, and a summary of the criteria is summarised in Table 1.

Table 1: Test Request Compaction and Moisture Content Specification

Fill Types	Minimum Dry Density Ratio (%)
Residential	>95%

2. Geology

Review of the Queensland Government’s Geotechnical Database indicates that the site is underlain by the Raceview Formation, comprising of; sublabilite to quartzose sandstone, shale, mudstone, thin coal seams and siltstone.0000000000

Figure 2: Based on the information provided by qgd.org.au



3. Earthworks Activities

Foundation preparation observed by Protest comprised the removal of topsoil and unsuitable materials across the fill area exposing the underlying natural materials. A test roll was performed on the natural soils using a pad foot roller and no noticeable movement was observed on the final pass.

Filling operations comprised the placement and compaction of material obtained from an Onsite source which was typically Sandy Clay. Materials were placed onsite in uniform layers not exceeding 300 mm.

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:

- Excavator
- Padfoot Roller
- Articulated Dump Truck

A total of 20 field density ratio tests were undertaken at select locations 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 maximum dry density (standard compaction) outlined in test method AS1289.5.7.1.

A summary of the test results is presented in Table 2 with the reports attached and the approximate test locations shown in the Attachments.

Table 2. Summary of Density Testing

Item	Compaction	Moisture Variation
No. of tests	10	10
Mean	97%	1.5%(Dry of OMC ⁽¹⁾)

(Notes: ⁽¹⁾ Optimum Moisture Content)

4. Compliance

Based on our assessments, it is our opinion that the earthworks placed and compacted at The Pocket Stage 5B by Shadforth Civil between June and August 2023 comply with the above-mentioned specifications and can be considered as Level 1 'controlled' or structural fill.

5. Comments

Based on the results of the inspections and field density testing whilst Protest were on-site, it is considered that the bulk earthworks at The Pocket Stage 5A between June and August 2023 have been undertaken in general accordance with AS3798-2007 *Guidelines on Earthworks for Commercial and Residential Developments*. Protest believes consideration should be given to the following:

- I. This report only certifies the bulk earthworks activities supervised by Protest between June and August 2023. Protest does not take responsibility for any other bulk earthworks activities that have occurred before or after these dates;
- II. The installation of services or any activities that may cause disruption of the compacted filling;
- III. The suitability of the filled land to support the proposed structures; and
- IV. Any variation in filling depth of extent of areas that is not noted within this report or on the individual test report sheets.

6. Constraints

- Protest has prepared this report for the bulk earthworks at The Pocket Stage 5A. This report was produced for the sole use of Shadforth Civil. It should not be used by or depended upon for other projects or purposes on the same or other site or by a third party. 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 on-site 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:

1. This report is not a SITE CLASS REPORT as per AS2870-2011 and not a Geotechnical Site Investigation report as per AS1726-2017.
2. 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”).
3. 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.
4. All compacted filling is subject to decompaction phenomenon.

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:



Simon Wynne (RPEQ 17390)

Senior Geotechnical Engineer

p | 0412 350 307

e | simon.wynne@protestengineering.com

- Attachments:
1. Site Images;
 2. Site Plan & Test Locations;
 3. Density Reports;

PROTEST **ENGINEERING**

GEOTECHNICAL // TESTING SERVICES // STRUCTURAL

Attachment 1 **Site Images**



Site Image 1 – Filling Operations in Progress



Site Image 2 – Filling Operations in Progress

PROTEST **ENGINEERING**

GEOTECHNICAL // TESTING SERVICES // STRUCTURAL

Attachment 2

Site Plan & Test Locations

WALL SETOUT POINTS					
SETOUT	EASTING	NORTHING	TOW RL	BOW RL	HEIGHT
01	6073.485	4619.064	41.40	40.20	1.50
02	6047.847	4603.417	40.97	39.77	1.50
03	6029.850	4595.016	41.46	41.00	0.46



LEGEND

- PROPOSED WORKS BOUNDARY
- PROPOSED CONCRETE SLEEPER RETAINING WALL - TYPE 1 & 2
- PROPOSED CONCRETE SLEEPER RETAINING WALL - TYPE 3 & 4
- EXISTING CONCRETE SLEEPER RETAINING WALL
- FUTURE CONCRETE SLEEPER RETAINING WALL
- PROPOSED ROCK RETAINING WALL
- PROPOSED SURFACE CONTOUR
- EXISTING SURFACE CONTOUR
- PROPOSED EARTHWORKS PAD SETBACK LINE
- PROPOSED DRAINAGE INTERIM SWALE (REFER SECTION O)
- EXISTING STORMWATER DRAINAGE PIPE
- EXISTING SEWERAGE MAIN
- EXISTING WATER MAIN
- EXISTING ELECTRICAL CABLE U/G
- PROPOSED AREA OF CUT
- PROPOSED AREA OF FILL
- 34.00 EARTHWORKS SURFACE SPOT LEVEL
- 34.00 EXISTING SURFACE SPOT LEVEL
- 34.00 FUTURE FINISHED SURFACE SPOT LEVEL
- EXISTING TREE TO BE RETAINED *
- EXISTING TREE TO BE REMOVED *

WARNING! - EXISTING SERVICES

EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

THE CONTRACTOR SHOULD CONTACT THE SERVICE PROVIDER FOR FURTHER INFORMATION AND SATISFY THEMSELVES OF ANY SPECIFIC TREATMENT OR REQUIREMENTS.

BULK EARTHWORKS MUST REMAIN WITHIN SITE BOUNDARY

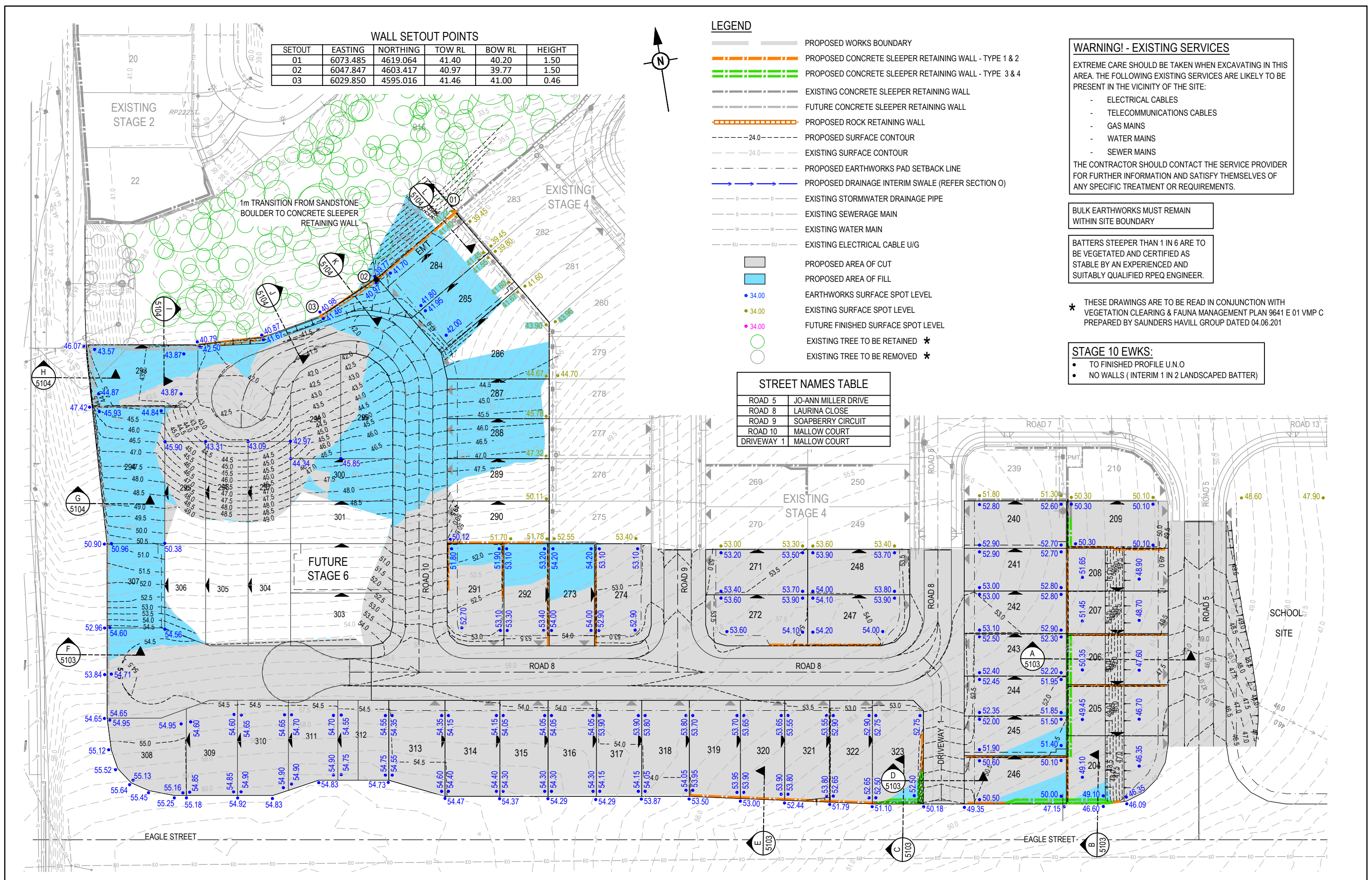
BATTERS STEEPER THAN 1 IN 6 ARE TO BE VEGETATED AND CERTIFIED AS STABLE BY AN EXPERIENCED AND SUITABLY QUALIFIED RPEQ ENGINEER.

* THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH VEGETATION CLEARING & FAUNA MANAGEMENT PLAN 9641 E 01 VMP C PREPARED BY SAUNDERS HAVILL GROUP DATED 04.06.201

STAGE 10 EWKS:

- TO FINISHED PROFILE U.N.O
- NO WALLS (INTERIM 1 IN 2 LANDSCAPED BATTER)

STREET NAMES TABLE	
ROAD 5	JO-ANN MILLER DRIVE
ROAD 8	LAURINA CLOSE
ROAD 9	SOAPBERRY CIRCUIT
ROAD 10	MALLOW COURT
DRIVEWAY 1	MALLOW COURT



REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	29.08.22	DC	RR	ORIGINAL ISSUE
2	20.12.22	DC	RR	SUBMISSION TO COUNCIL

DRAWN	STATUS
TROY SCHULTZ	NOT FOR CONSTRUCTION
APPROVED	RPEQ 20631



SCALE
1:500 10 5 0 10 20 A1
1:1000

CLIENT
HB QLD PTY LTD
ASSOCIATED CONSULTANT SAUNDERS HAVILL GROUP PHONE: 1300 123 744

PROJECT NAME
THE POCKET - STAGE 5A
280 COLLINGWOOD DRIVE COLLINGWOOD PARK

DRAWING TITLE		
BULK EARTHWORKS LAYOUT PLAN		
PROJECT No.	DRAWING No.	REVISION
20-0240	5102	2

WALL SETOUT POINTS					
SETOUT	EASTING	NORTHING	TOW RL	BOW RL	HEIGHT
01	6073.485	4619.064	41.40	40.20	1.50
02	6047.847	4603.417	40.97	39.77	1.50
03	6029.850	4595.016	41.46	41.00	0.46



LEGEND

- PROPOSED WORKS BOUNDARY
- PROPOSED CONCRETE SLEEPER RETAINING WALL - TYPE 1 & 2
- PROPOSED CONCRETE SLEEPER RETAINING WALL - TYPE 3 & 4
- EXISTING CONCRETE SLEEPER RETAINING WALL
- FUTURE CONCRETE SLEEPER RETAINING WALL
- PROPOSED ROCK RETAINING WALL
- PROPOSED SURFACE CONTOUR
- EXISTING SURFACE CONTOUR
- PROPOSED EARTHWORKS PAD SETBACK LINE
- PROPOSED DRAINAGE INTERIM SWALE (REFER SECTION O)
- EXISTING STORMWATER DRAINAGE PIPE
- EXISTING SEWERAGE MAIN
- EXISTING WATER MAIN
- EXISTING ELECTRICAL CABLE U/G
- PROPOSED AREA OF CUT
- PROPOSED AREA OF FILL
- 34.00 EARTHWORKS SURFACE SPOT LEVEL
- 34.00 EXISTING SURFACE SPOT LEVEL
- 34.00 FUTURE FINISHED SURFACE SPOT LEVEL
- EXISTING TREE TO BE RETAINED *
- EXISTING TREE TO BE REMOVED *

WARNING! - EXISTING SERVICES

EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

THE CONTRACTOR SHOULD CONTACT THE SERVICE PROVIDER FOR FURTHER INFORMATION AND SATISFY THEMSELVES OF ANY SPECIFIC TREATMENT OR REQUIREMENTS.

BULK EARTHWORKS MUST REMAIN WITHIN SITE BOUNDARY

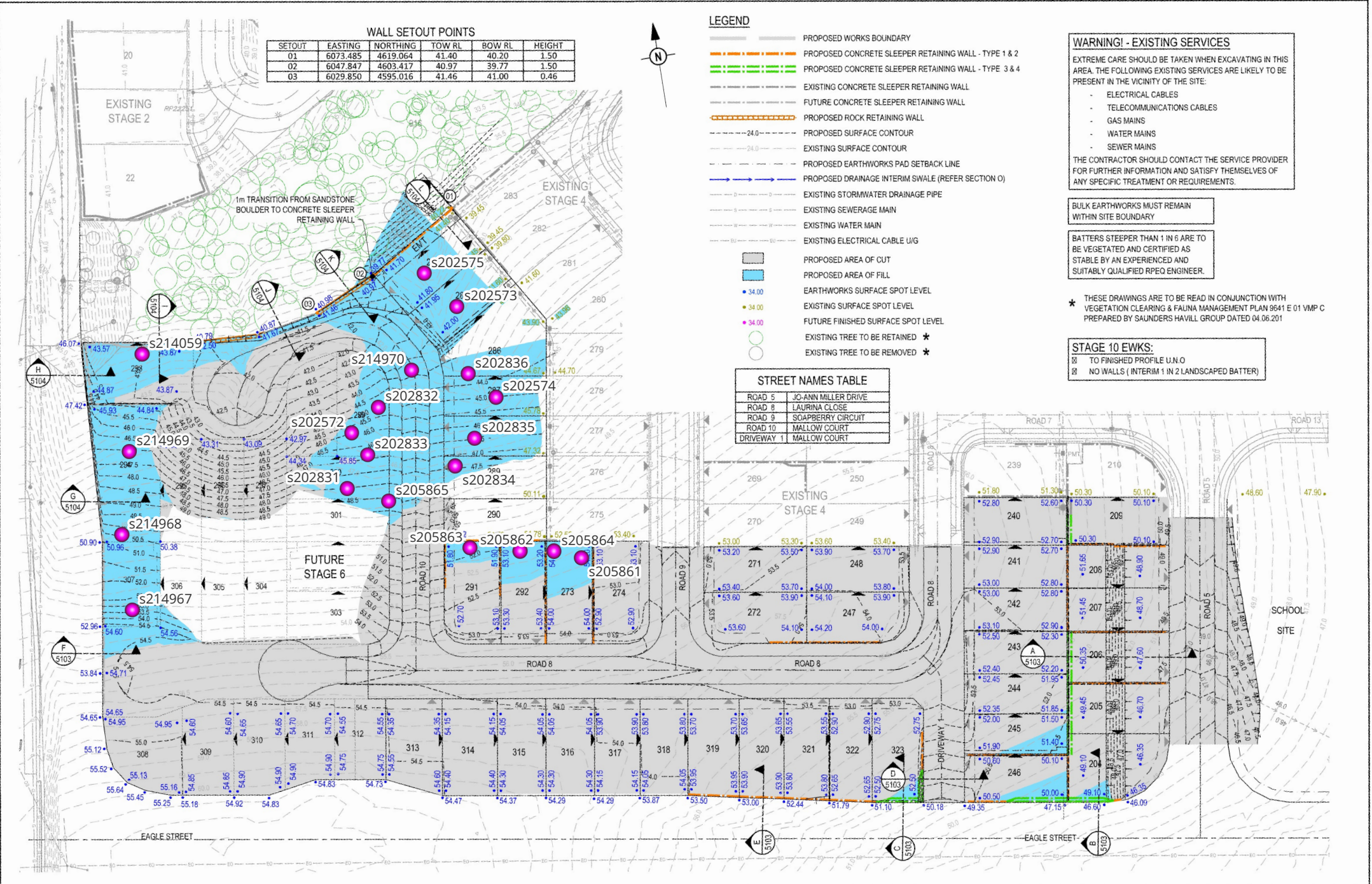
BATTERS STEEPER THAN 1 IN 6 ARE TO BE VEGETATED AND CERTIFIED AS STABLE BY AN EXPERIENCED AND SUITABLY QUALIFIED RPEQ ENGINEER.

* THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH VEGETATION CLEARING & FAUNA MANAGEMENT PLAN 9641 E 01 VMP C PREPARED BY SAUNDERS HAVILL GROUP DATED 04.06.201

STAGE 10 EWKS:

- TO FINISHED PROFILE U.N.O
- NO WALLS (INTERIM 1 IN 2 LANDSCAPED BATTER)

STREET NAMES TABLE	
ROAD 5	JO-ANN MILLER DRIVE
ROAD 8	LAURINA CLOSE
ROAD 9	SOAPBERRY CIRCUIT
ROAD 10	MALLOW COURT
DRIVEWAY 1	MALLOW COURT

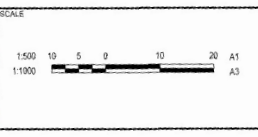


REV	DATE	DESIGN	DRAWN	ORIGINIAL ISSUE	REVISION DETAILS
1	20.06.22	DC	RR	RR	ORIGINAL ISSUE
2	20.12.22	DC	RR	RR	SUBMISSION TO COUNCIL

NOT FOR CONSTRUCTION

APPROVED
TROY SCHULTZ
RPEQ 20631

FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD



CLIENT
HB QLD PTY LTD

ASSOCIATED CONSULTANT
SAUNDERS HAVILL GROUP
PHONE: 1300 123 744

PROJECT NAME
THE POCKET - STAGE 5A

280 COLLINGWOOD DRIVE
COLLINGWOOD PARK



DRAWING TITLE		
BULK EARTHWORKS LAYOUT PLAN		
PROJECT No	DRAWING No	REVISION
20-0240	5102	2

PROTEST **ENGINEERING**



GEOTECHNICAL // TESTING SERVICES // STRUCTURAL

Attachment 3
Density Reports



Soil Compaction and Density Tests Report - Compaction Control

Client :	Shadforth				Report Number :	SR/PTP/12227 - 1/1	
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD				Report Date :	7/07/2023	
Project Name :	The Pocket Stage 5A - LV1				Test Request :	-	
Project Number :	PTP/12227				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/202572	S/202573	S/202574	S/202575			
Date Tested :	22/06/2023	22/06/2023	22/06/2023	22/06/2023			
Material Source :	Onsite	Onsite	Onsite	Onsite			
For use as :	General fill	General fill	General fill	General fill			
Test / Layer Depths :	125 / 150	125 / 150	125 / 150	125 / 150			
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 :	13:00	13:10	13:20	13:30			
Lot Number :	-	-	-	-			
Location 1 :	Lot 298	Lot 285	Lot 287	Lot 284			
Location 2 :	FL	FL	1m BFL	2m BFL			
Location 3 :	Center of lot	Center of lot	Center of lot	Center of lot			
Location 4 :	-	-	-	-			
Test Fraction (mm) :	< 19mm	< 19mm	< 19mm	< 19mm			
Oversize Wet :	19%	11%	10%	10%			
Oversize Density - Dry (t/m ³) :	2.58	2.60	2.51	2.53			
Assigned MDR (Yes/No) :	No	No	No	No			
MDR Sample Number :	S/202572	S/202573	S/202574	S/202575			
MDR Test Date :	6/07/2023	6/07/2023	6/07/2023	6/07/2023			
Compaction Type :	Standard	Standard	Standard	Standard			
Soil Description :	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay			
<i>MDR Test Results</i>							
PCWD (t/m ³) :	2.09	2.04	2.05	2.12			
Moisture Variation :	2.0%	2.0%	2.0%	1.5%			
ADJ PCWD (t/m ³) :	2.17	2.09	2.09	2.16			
ADJ Moisture Variation :	1.5%	1.5%	1.5%	1.5%			
<i>Moisture Test Results :</i>							
Field Moisture Content :	8.0%	10.0%	9.0%	8.5%			
Moisture Specification :	-	-	-	-			
Variation from OMC :	1.5% Dry of OMC	1.5% Dry of OMC	1.5% Dry of OMC	1.5% Dry of OMC			
Relative Moisture Ratio (Q250) :	-	-	-	-			
Moisture Ratio :	N/A	N/A	N/A	N/A			
<i>Density Test Results</i>							
Field Wet Density (t/m ³) :	2.07	2.01	2.04	2.06			
Density Specification :	95%	95%	95%	95%			
Wet Density Ratio :	95.0%	96.0%	97.5%	95.0%			
Remarks :							
 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				APPROVED SIGNATORY  Rhys Vanderkly - Signatory			



Soil Compaction and Density Tests Report - Compaction Control

Client :	Shadforth					Report Number :	SR/PTP/12227 - 2/1
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD					Report Date :	17/07/2023
Project Name :	The Pocket Stage 5A - LV1					Test Request :	-
Project Number :	PTP/12227					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/202831	S/202832	S/202833	S/202834	S/202835	S/202836	
Date Tested :	23/06/2023	23/06/2023	23/06/2023	23/06/2023	23/06/2023	23/06/2023	
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 :	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 :	12:08	12:11	12:14	12:16	12:18	12:21	
Lot Number :	-	-	-	-	-	-	
Location 1 :	Lot 300	Lot 299	Lot 298	Lot 289	Lot 288	Lot 286	
Location 2 :	E 486047	E 486048	E 486039	E 486061	E 486075	E 486071	
Location 3 :	N 6944557	N 6944565	N 6944561	N 6944543	N 6944550	N 6944573	
Location 4 :	RL 47.6	RL 45.8	RL 46.3	RL 47.4	RL 46.1	RL 43.9	
Test Fraction (mm) :	< 19mm	< 19mm	< 19mm	< 19mm	< 19mm	< 19mm	
Oversize Wet :	11%	19%	17%	8%	14%	16%	
Oversize Density - Dry (t/m ³) :	3.30	2.66	2.71	3.50	3.01	2.84	
Assigned MDR (Yes/No) :	No	No	No	No	No	No	
MDR Sample Number :	S/202831	S/202832	S/202833	S/202834	S/202835	S/202836	
MDR Test Date :	10/07/2023	10/07/2023	10/07/2023	10/07/2023	10/07/2023	10/07/2023	
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/m ³) :	2.14	2.10	2.19	2.15	2.15	2.14	
Moisture Variation :	2.0%	2.0%	2.0%	2.0%	1.5%	2.0%	
ADJ PCWD (t/m ³) :	2.23	2.19	2.26	2.22	2.24	2.23	
ADJ Moisture Variation :	2.0%	1.5%	1.5%	1.5%	1.5%	2.0%	
Moisture Test Results :							
Field Moisture Content :	8.0%	8.0%	7.5%	8.0%	7.5%	7.0%	
Moisture Specification :	-	-	-	-	-	-	
Variation from OMC :	2.0% Dry of OMC	1.5% Dry of OMC	1.5% Dry of OMC	1.5% Dry of OMC	1.5% Dry of OMC	2.0% Dry 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/m ³) :	2.13	2.08	2.15	2.23	2.20	2.23	
Density Specification :	95%	95%	95%	95%	95%	95%	
Wet Density Ratio :	95.5%	95.0%	95.0%	100.5%	98.0%	100.0%	
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/12227 - 3/1
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD				Report Date :	30/08/2023
Project Name :	The Pocket Stage SA - LV1				Test Request :	-
Project Number :	PTP/12227				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/205861	S/205862	S/205863	S/205864	S/205865	
Date Tested :	11/07/2023	11/07/2023	11/07/2023	11/07/2023	11/07/2023	
Material Source :	Onsite	Onsite	Onsite	Onsite	Onsite	
For use as :	Fill	Fill	Fill	Fill	Fill	
Test / Layer Depths :	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	
Time :	09:40	09:50	10:00	10:15	10:30	
Lot Number :	-	-	-	-	-	
Location 1 :	Lot 273	Lot 292	Lot 291	Lot 273	Lot 301	
Location 2 :	5m off rear boundary	3m off rear boundary	3m off rear boundary	3m off rear boundary	1m off front boundary	
Location 3 :	2m off RHS	3m off LHS	3m off RHS	2m off LHS	1m off RHS	
Location 4 :	FSL	FSL	FSL	FSL	FSL	
Test Fraction (mm) :	< 19mm	< 19mm	< 19mm	< 19mm	< 19mm	
Oversize Wet :	12%	15%	12%	18%	16%	
Oversize Density - Dry (t/m ³) :	2.70	2.61	2.61	2.80	2.77	
Assigned MDR (Yes/No) :	No	No	No	No	No	
MDR Sample Number :	S/205861	S/205862	S/205863	S/205864	S/205865	
MDR Test Date :	7/08/2023	7/08/2023	7/08/2023	7/08/2023	7/08/2023	
Compaction Type :	Standard	Standard	Standard	Standard	Standard	
Soil Description :	SANDY CLAY	SANDY CLAY	SANDY CLAY	SANDY CLAY	SANDY CLAY	
<i>MDR Test Results</i>						
PCWD (t/m ³) :	2.16	2.20	2.16	2.17	2.21	
Moisture Variation :	0.5%	2.0%	0.0%	2.0%	0.5%	
ADI PCWD (t/m ³) :	2.22	2.25	2.21	2.26	2.29	
ADI Moisture Variation :	0.5%	1.5%	0.0%	1.5%	0.5%	
<i>Moisture Test Results</i>						
Field Moisture Content :	10.5%	7.0%	10.5%	6.5%	7.5%	
Moisture Specification :	-	-	-	-	-	
Variation from OMC :	0.5% Dry of OMC	1.5% Dry of OMC	0.0% Dry of OMC	1.5% Dry of OMC	0.5% Dry of OMC	
Relative Moisture Ratio (Q250) :	-	-	-	-	-	
Moisture Ratio :	N/A	N/A	N/A	N/A	N/A	
<i>Density Test Results</i>						
Field Wet Density (t/m ³) :	2.11	2.15	2.12	2.15	2.18	
Density Specification :	95%	95%	95%	95%	95%	
Wet Density Ratio :	95.0%	95.0%	96.0%	95.0%	95.5%	
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/12227 - 4/1
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD	Report Date :	12/09/2023
Project Name :	The Pocket Stage SA - LV1	Test Request :	-
Project Number :	PTP/12227	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/214059		
Date Tested :	23/08/2023		
Material Source :	Onsite		
For use as :	Fill		
Test / Layer Depths :	175 / 200		
Sampling Method :	AS1289.1.2.1 - cl6.4b		
Time :	10:44		
Lot Number :	-		
Location 1 :	Lot 293		
Location 2 :	3m off north boundary		
Location 3 :	5m off east boundary		
Location 4 :	0.5m below FSL		
Test Fraction (mm) :	< 19mm		
Oversize Wet :	0%		
Oversize Density - Dry (t/m ³) :	-		
Assigned MDR (Yes/No) :	No		
MDR Sample Number :	S/214059		
MDR Test Date :	12/09/2023		
Compaction Type :	Standard		
Soil Description :	Sand, Clay		
<i>MDR Test Results</i>			
PCWD (t/m ³) :	2.12		
Moisture Variation :	2.0%		
ADI PCWD (t/m ³) :	-		
ADI Moisture Variation :	-		
<i>Moisture Test Results</i>			
Field Moisture Content :	11.0%		
Moisture Specification :	-		
Variation from OMC :	2.0% Dry of OMC		
Relative Moisture Ratio (Q250) :	-		
Moisture Ratio :	N/A		
<i>Density Test Results</i>			
Field Wet Density (t/m ³) :	2.05		
Density Specification :	95%		
Wet Density Ratio :	96.5%		
Remarks :			
 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		APPROVED SIGNATORY  Rhys Vanderkly - Signatory	

Soil Compaction and Density Tests Report - Compaction Control

Client :	Shadforth				Report Number :	SR/PTP/12227 - 5/1	
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD				Report Date :	15/09/2023	
Project Name :	The Pocket Stage SA - LV1				Test Request :	-	
Project Number :	PTP/12227				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/214967	S/214968	S/214969	S/214970			
Date Tested :	26/08/2023	26/08/2023	26/08/2023	26/08/2023			
Material Source :	Onsite	Onsite	Onsite	Onsite			
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 :	08:00	08:30	09:00	09:30			
Lot Number :	307	294	294	-			
Location 1 :	E 485968	E 485971	E 485970	Road 10			
Location 2 :	N 6944554	N 6944540	N 6944566	CH 80			
Location 3 :	Finished Level	Finished Level	Finished Level	On CL			
Location 4 :	-	-	-	Finished level			
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/214967	S/214968	S/214969	S/214970			
MDR Test Date :	14/09/2023	14/09/2023	14/09/2023	14/09/2023			
Compaction Type :	Standard	Standard	Standard	Standard			
Soil Description :	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay			
<i>MDR Test Results</i>							
PCWD (t/m ³) :	2.07	2.09	2.09	2.07			
Moisture Variation :	2.0%	2.0%	2.0%	2.0%			
ADI PCWD (t/m ³) :	-	-	-	-			
ADI Moisture Variation :	-	-	-	-			
<i>Moisture Test Results</i>							
Field Moisture Content :	8.0%	8.5%	8.5%	9.5%			
Moisture Specification :	-	-	-	-			
Variation from OMC :	2.0% Dry of OMC	2.0% Dry of OMC	2.0% Dry of OMC	2.0% Dry of OMC			
Relative Moisture Ratio (Q250) :	-	-	-	-			
Moisture Ratio :	N/A	N/A	N/A	N/A			
<i>Density Test Results</i>							
Field Wet Density (t/m ³) :	2.09	2.08	2.06	2.10			
Density Specification :	95%	95%	95%	95%			
Wet Density Ratio :	101.0%	99.5%	98.5%	101.5%			
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>			