

# Viewpoint Estate Stage E3 Huntly

## Earthworks Supervision Report for Dunlop & Pitson

Report 20C 1424  
April, 2021

# Viewpoint Estate Stage E3 Huntly

## Earthworks Supervision Report

for  
Dunlop & Pitson

### Revision

Revision	Date	Authorised
20C 1424	07/04/2021	SEH

### Distribution (this revision only)

Recipient	Format	Date
GTSS	On file	07/04/2021
Dunlop & Pitson Contact: Darren Pitson	Email PDF	07/04/2021



# TABLE OF CONTENTS

1	INTRODUCTION .....	4
2	SCOPE OF WORKS.....	4
2.1	AREA OF WORK.....	4
2.2	PLACEMENT SPECIFICATION .....	4
3	INSPECTION AND TESTING.....	5
4	SUMMARY OF TEST RESULTS.....	5
5	STATEMENT OF COMPLIANCE .....	6

## APPENDIX

Site Plan  
Test Reports

## **1 INTRODUCTION**

Dunlop & Pitson commissioned Geotechnical Testing Services (GTS) to undertake Level 1 Supervision and testing (AS3798-2007) for the earthworks for the residential subdivision Viewpoint Estate Stage E3, Huntly.

Level 1 Testing was generally performed in line with AS3798-2007 "Guidelines on Earthworks for Commercial and Residential Development" and provides inspection of the construction of controlled fill and compaction testing in accordance with AS1289 "Methods of Testing Soils for Engineering Purposes". The Level 1 testing was undertaken by Geotechnicians with supervision provided by a Geotechnical Engineer from GTS.

## **2 SCOPE OF WORKS**

### **2.1 AREA OF WORK**

Geotechnical Testing Services provided Level 1 inspection and testing of the engineered fill placed in Lots 466 to 471, 486 to 489 and 493.

The depth of fill across the site varied from none to around 900mm with the approximate locations shown on the attached site plan. It is noted that sites with less than 300mm were not included in the controlled filling supervision.

### **2.2 PLACEMENT SPECIFICATION**

Whilst there was no earthworks specification compiled for this project, the placement of the fill and associated works generally followed the recommendations outlined in AS3798-2007 "Guidelines for Earthworks for Commercial and Residential Developments" and the construction specification.

In summary, the earthworks comply with the following:

- The layers for residential lots are to be compacted to at least 95% of the density ratio in accordance with AS1289 5.1.1 (or 5.7.1), based on Standard compaction.

In accordance with Table 8.1 of AS3798-2007, the filling may be considered a large scale (greater than 1500m<sup>2</sup>) and therefore a minimum of 1 test per 2500m<sup>2</sup> or 3 tests per visit are required. It is noted that under this scale, not every lot required testing, however, the testing was generally conducted at 1 test per residential lot per layer which exceeds the minimum requirements. It is noted that part lots at the end of the fill were not tested but were compacted at the same rate as the adjacent lot and are considered as part of the controlled fill. This is the case with Lot 489.

### 3 INSPECTION AND TESTING

Inspection of the excavated bases were conducted by a Senior Geotechnical Engineer and it was observed that the unsuitable material (vegetation, topsoil/silt) had been removed with the base consisting of a Silty Clay material of good strength.

Level 1 inspection and testing was undertaken by a geotechnician from GTS who nominated the timing and location of the in-situ density tests. The approximate location of each test is recorded on the test reports and attached fill plan.

Laboratory compaction testing was undertaken on a one to one basis at our Bendigo laboratory. A summary of the results of the compaction control testing is presented in a table below with the full NATA endorsed test reports included in the Appendix.

### 4 SUMMARY OF TEST RESULTS

A summary of the test results is included in the following table with full NATA accredited reports included in the Appendix.

Project No.	Sample No.	Test Date	Location	Reduced Level (mm)	Moisture Variation %O.M.C	Hilf Density Ratio %
1	B20-7680A	21/10/2020	Lot 470	-600	2.0	103.5
2	B20-7680B	21/10/2020	Lot 469	-600	3.0	105.5
3	B20-7680C	21/10/2020	Lot 468	-600	2.0	105.0
4	B20-7714A	27/10/2020	Lot 471	-300	0.0	96.5
5	B20-7714B	27/10/2020	Lot 470	-300	-0.5	101.5
6	B20-7714C	27/10/2020	Lot 469	-300	0.0	101.5
7	B20-7714D	27/10/2020	Lot 468	-300	0.0	101.5
8	B20-7714E	27/10/2020	Lot 467	-600	0.0	96.0
9	B20-7732A	29/10/2020	Lot 467	-300	1.5	96.5
10	B20-7779A	3/11/2020	Lot 471	FSL	2.5	94.0
11	B20-7779B	3/11/2020	Lot 470	FSL	2.5	98.0
12	B20-7779C	3/11/2020	Lot 469	FSL	2.5	95.0
13	B20-7779D	3/11/2020	Lot 468	FSL	2.5	93.5
14	B20-7779E	3/11/2020	Lot 467	FSL	2.5	97.5
15	B20-7779F	3/11/2020	Lot 466	FSL	2.5	93.5
RT 10	B20-7850B	13/11/2020	Lot 471	FSL	3.5	95.0
RT 13	B20-7850C	13/11/2020	Lot 468	FSL	3.5	98.0
RT 15	B20-7850D	13/11/2020	Lot 466	FSL	2.5	99.0

Project No.	Sample No.	Test Date	Location	Reduced Level (mm)	Moisture Variation %O.M.C	Hilf Density Ratio %
16	B20-7982A	26/11/2020	Lot 488	-600	2.5	96.0
17	B20-7982B	26/11/2020	Lot 487	-600	2.0	97.5
18	B20-7999A	27/11/2020	Lot 487	-300	1.0	98.5
19	B20-7999B	27/11/2020	Lot 488	-300	0.5	100.0
20	B20-8031A	2/12/2020	Lot 488	FSL	4.5	100.5
21	B20-8031B	2/12/2020	Lot 487	FSL	2.5	103.0
22	B20-8149D	16/12/2020	Lot 493	FSL	4.5	103.0
23	B20-8167A	18/12/2020	Lot 486	FSL	2.5	99.5

## 5 STATEMENT OF COMPLIANCE

GTS personnel have provided Level 1 inspection and testing services during the placement of material for the filling in Lots 466 to 471, 486 to 489 and 493. The placement of fill and construction techniques adopted was observed throughout the project.

Based on observations made by GTS personnel and the results of field and laboratory tests, we consider that the fill has been placed and compacted and is considered to be engineered or controlled fill. Therefore, subject to residential site classifications, the controlled fill material is deemed a suitable founding medium for future residential buildings. It is noted that topsoil material may be spread across the sites following completion of these earthworks and that this topsoil material is not considered controlled fill.



**Shane Hampton** BE (Hons), MIEAust  
**Principal Geotechnical Engineer**

# APPENDIX



Fig 1 Site Plan



# Material Test Report

**Report Number:** P18615-27  
**Issue Number:** 1  
**Date Issued:** 21/10/2020  
**Client:** Dunlop & Pitson  
 24 Jewell Court , Bendigo VIC 3550  
**Project Number:** P18615  
**Project Name:** View Point Estate  
**Project Location:** Huntly  
**Work Request:** 7680  
**Date Sampled:** 21/10/2020  
**Dates Tested:** 21/10/2020 - 21/10/2020  
**Sampling Method:** AS 1289.1.2.1 6.4 - Sampling from layers in earthworks or pavement - uncompacted/compacted  
**Site Selection:** Selected by Client  
**Material Source:** Test Location



Geotechnical Testing Services (Southern)  
 Bendigo Soil and Concrete Testing Laboratory  
 13 Alstonvale Court East Bendigo VIC 3550  
 Phone: (03) 5441 4881  
 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki  
 NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	B20-7680A	B20-7680B	B20-7680C
Date Tested	21/10/2020	21/10/2020	21/10/2020
Time Tested	10:16	10:20	10:23
Test Request #/Location	Stage 3 House block	Stage 3 House block	Stage 3 House block
Chainage (m)	Lot 470	Lot 469	Lot 468
Location Offset (m)	**	**	**
Layer / Reduced Level	-600	-600	-600
Thickness of Layer (mm)	300	300	300
Soil Description	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay
Test Depth (mm)	250	250	250
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	1	1	2
Field Wet Density (FWD) t/m <sup>3</sup>	2.05	2.08	2.10
Field Dry Density (FDD) t/m <sup>3</sup>	**	**	**
Peak Converted Wet Density t/m <sup>3</sup>	**	**	**
Adjusted Peak Converted Wet Density t/m <sup>3</sup>	1.98	1.97	1.99
Moisture Variation (Wv) %	**	**	**
Adjusted Moisture Variation %	2.0	3.0	2.0
Hilf Density Ratio (%)	<b>103.5</b>	<b>105.5</b>	<b>105.0</b>
Compaction Method	<b>Standard</b>	<b>Standard</b>	<b>Standard</b>
Report Remarks	**	**	**

## Moisture Variation Note:

Positive values = test is dry of OMC  
 Negative values = test is wet of OMC

# Material Test Report

**Report Number:** P18615-28  
**Issue Number:** 1  
**Date Issued:** 27/10/2020  
**Client:** Dunlop & Pitson  
 24 Jewell Court , Bendigo VIC 3550  
**Project Number:** P18615  
**Project Name:** View Point Estate  
**Project Location:** Huntly  
**Work Request:** 7714  
**Date Sampled:** 27/10/2020  
**Dates Tested:** 27/10/2020 - 27/10/2020  
**Sampling Method:** AS 1289.1.2.1 6.4 - Sampling from layers in earthworks or pavement - uncompacted/compacted  
**Site Selection:** Selected by Client  
**Material Source:** Test Location



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Approved Signatory: Josh Lagodzki  
 NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1					
Sample Number	B20-7714A	B20-7714B	B20-7714C	B20-7714D	B20-7714E
Date Tested	27/10/2020	27/10/2020	27/10/2020	27/10/2020	27/10/2020
Time Tested	10:22	10:25	10:27	10:28	10:32
Test Request #/Location	Stage 3 House block	Stage 3 House block	Stage 3 House block	Stage 3 House block	Stage 3 House block
Chainage (m)	Lot 471	Lot 470	Lot 469	Lot 468	Lot 467
Location Offset (m)	Front	Front	Front	Front	Centre
Layer / Reduced Level	-300	-300	-300	-300	-600
Thickness of Layer (mm)	300	300	300	300	300
Soil Description	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay
Test Depth (mm)	250	250	250	250	250
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	1	3	2	2	3
Field Wet Density (FWD) t/m <sup>3</sup>	2.02	2.10	2.11	2.13	2.01
Field Dry Density (FDD) t/m <sup>3</sup>	**	**	**	**	**
Peak Converted Wet Density t/m <sup>3</sup>	**	**	**	**	**
Adjusted Peak Converted Wet Density t/m <sup>3</sup>	2.10	2.07	2.08	2.09	2.10
Moisture Variation (Wv) %	**	**	**	**	**
Adjusted Moisture Variation %	0.0	-0.5	0.0	0.0	0.0
Hilf Density Ratio (%)	<b>96.5</b>	<b>101.5</b>	<b>101.5</b>	<b>101.5</b>	<b>96.0</b>
Compaction Method	<b>Standard</b>	<b>Standard</b>	<b>Standard</b>	<b>Standard</b>	<b>Standard</b>
Report Remarks	**	**	**	**	**

**Moisture Variation Note:**

Positive values = test is dry of OMC  
 Negative values = test is wet of OMC

# Material Test Report



**Report Number:** P18615-29  
**Issue Number:** 1  
**Date Issued:** 02/11/2020  
**Client:** Dunlop & Pitson  
 24 Jewell Court , Bendigo VIC 3550  
**Project Number:** P18615  
**Project Name:** View Point Estate  
**Project Location:** Huntly  
**Work Request:** 7732  
**Date Sampled:** 29/10/2020  
**Dates Tested:** 29/10/2020 - 29/10/2020  
**Sampling Method:** AS 1289.1.2.1 6.4 - Sampling from layers in earthworks or pavement - uncompacted/compacted  
**Site Selection:** Selected by Client  
**Material Source:** Test Location

Geotechnical Testing Services (Southern)  
 Bendigo Soil and Concrete Testing Laboratory  
 13 Alstonvale Court East Bendigo VIC 3550  
 Phone: (03) 5441 4881  
 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki  
 NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	B20-7732A		
Date Tested	29/10/2020		
Time Tested	14:42		
Test Request #/Location	Stage 2 House Blocks		
Chainage (m)	Lot 467		
Location Offset (m)	Centre		
Layer / Reduced Level	-300		
Thickness of Layer (mm)	300		
Soil Description	Silty Gravelly Clay		
Test Depth (mm)	250		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	5		
Field Wet Density (FWD) t/m <sup>3</sup>	1.98		
Field Dry Density (FDD) t/m <sup>3</sup>	**		
Peak Converted Wet Density t/m <sup>3</sup>	**		
Adjusted Peak Converted Wet Density t/m <sup>3</sup>	2.06		
Moisture Variation (Wv) %	**		
Adjusted Moisture Variation %	1.5		
Hilf Density Ratio (%)	<b>96.5</b>		
Compaction Method	<b>Standard</b>		
Report Remarks	**		

**Moisture Variation Note:**

Positive values = test is dry of OMC  
 Negative values = test is wet of OMC

# Material Test Report



**Report Number:** P18615-30  
**Issue Number:** 1  
**Date Issued:** 04/11/2020  
**Client:** Dunlop & Pitson  
 24 Jewell Court , Bendigo VIC 3550  
**Project Number:** P18615  
**Project Name:** View Point Estate  
**Project Location:** Huntly  
**Work Request:** 7779  
**Date Sampled:** 03/11/2020  
**Dates Tested:** 03/11/2020 - 03/11/2020  
**Sampling Method:** AS 1289.1.2.1 6.4 - Sampling from layers in earthworks or pavement - uncompacted/compacted  
**Site Selection:** Selected by Client  
**Material Source:** Test Location

Geotechnical Testing Services (Southern)  
 Bendigo Soil and Concrete Testing Laboratory  
 13 Alstonvale Court East Bendigo VIC 3550  
 Phone: (03) 5441 4881  
 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki  
 NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1						
Sample Number	B20-7779A	B20-7779B	B20-7779C	B20-7779D	B20-7779E	B20-7779F
Date Tested	03/11/2020	03/11/2020	03/11/2020	03/11/2020	03/11/2020	03/11/2020
Time Tested	14:16	14:20	14:23	14:26	14:28	14:30
Test Request #/Location	Stage 2 House Blocks	Stage 2 House Blocks	Stage 2 House Blocks	Stage 2 House Blocks	Stage 2 House Blocks	Stage 2 House Blocks
Chainage (m)	Lot 471	Lot 470	Lot 469	Lot 468	Lot 467	Lot 466
Location Offset (m)	Front	Front	Front	Front	Front	Front
Layer / Reduced Level	FSL	FSL	FSL	FSL	FSL	FSL
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay
Test Depth (mm)	250	250	250	250	250	250
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	3	0	0	18	7
Field Wet Density (FWD) t/m <sup>3</sup>	1.95	2.01	1.95	1.93	2.04	1.94
Field Dry Density (FDD) t/m <sup>3</sup>	**	**	**	**	**	**
Peak Converted Wet Density t/m <sup>3</sup>	2.07	**	2.05	2.06	**	**
Adjusted Peak Converted Wet Density t/m <sup>3</sup>	**	2.05	**	**	2.09	2.08
Moisture Variation (Wv) %	2.5	**	2.5	2.5	**	**
Adjusted Moisture Variation %	**	2.5	**	**	2.5	2.5
Hilf Density Ratio (%)	94.0	98.0	95.0	93.5	97.5	93.5
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

**Moisture Variation Note:**

Positive values = test is dry of OMC  
 Negative values = test is wet of OMC

# Material Test Report

**Report Number:** P18615-32  
**Issue Number:** 1  
**Date Issued:** 16/11/2020  
**Client:** Dunlop & Pitson Pty Ltd  
 24 Jewell Court , Bendigo VIC 3550  
**Project Number:** P18615  
**Project Name:** View Point Estate  
**Project Location:** Huntly  
**Work Request:** 7850  
**Date Sampled:** 13/11/2020  
**Dates Tested:** 13/11/2020 - 16/11/2020  
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted  
**Site Selection:** Selected by Client  
**Material Source:** Test Location



Geotechnical Testing Services (Southern)  
 Bendigo Soil and Concrete Testing Laboratory  
 13 Alstonvale Court East Bendigo VIC 3550  
 Phone: (03) 5441 4881  
 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki  
 NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1					
Sample Number	B20-7850A	B20-7850B	B20-7850C	B20-7850D	B20-7850E
Date Tested	13/11/2020	13/11/2020	13/11/2020	13/11/2020	13/11/2020
Time Tested	08:02	08:12	08:20	08:27	08:36
Test Request #/Location	Dam Fill	Retest B20-7779 House Lot 471	Retest B20-7779 House Lot 468	Retest B20-7779 House Lot 466	Charters Way
Chainage (m)	Centre	Centre	Centre	Centre	125
Location Offset (m)	Centre	**	**	**	Centre
Layer / Reduced Level	FSL	FSL	FSL	FSL	-300
Thickness of Layer (mm)	300	300	300	300	300
Soil Description	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay
Test Depth (mm)	250	250	250	250	250
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	4	8	2	1	0
Field Wet Density (FWD) t/m <sup>3</sup>	1.91	1.88	1.92	1.95	1.94
Field Dry Density (FDD) t/m <sup>3</sup>	**	**	**	**	**
Peak Converted Wet Density t/m <sup>3</sup>	**	**	**	**	1.94
Adjusted Peak Converted Wet Density t/m <sup>3</sup>	1.98	1.99	1.96	1.97	**
Moisture Variation (Wv) %	**	**	**	**	4.5
Adjusted Moisture Variation %	3.0	3.5	3.5	2.5	**
Hilf Density Ratio (%)	<b>96.5</b>	<b>95.0</b>	<b>98.0</b>	<b>99.0</b>	<b>100.0</b>
Compaction Method	<b>Standard</b>	<b>Standard</b>	<b>Standard</b>	<b>Standard</b>	<b>Standard</b>
Report Remarks	**	**	**	**	**

**Moisture Variation Note:**

Positive values = test is dry of OMC  
 Negative values = test is wet of OMC

# Material Test Report



**Report Number:** P18615-33  
**Issue Number:** 1  
**Date Issued:** 27/11/2020  
**Client:** Dunlop & Pitson Pty Ltd  
 24 Jewell Court , Bendigo VIC 3550  
**Project Number:** P18615  
**Project Name:** View Point Estate  
**Project Location:** Huntly  
**Work Request:** 7982  
**Date Sampled:** 26/11/2020  
**Dates Tested:** 26/11/2020 - 26/11/2020  
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted  
**Site Selection:** Selected by Client  
**Material Source:** Test Location

Geotechnical Testing Services (Southern)  
 Bendigo Soil and Concrete Testing Laboratory  
 13 Alstonvale Court East Bendigo VIC 3550  
 Phone: (03) 5441 4881  
 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki  
 NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	B20-7982A	B20-7982B	
Date Tested	26/11/2020	26/11/2020	
Time Tested	12:03	12:06	
Test Request #/Location	Stage 3 House Block	Stage 3 House Block	
Chainage (m)	Lot 488	Lot 487	
Location Offset (m)	Front Centre	Front Cnetre	
Layer / Reduced Level	-600	-600	
Thickness of Layer (mm)	300	300	
Soil Description	Gravelly Silty Clay	Gravelly Silty Clay	
Test Depth (mm)	250	250	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0	0	
Field Wet Density (FWD) t/m <sup>3</sup>	1.91	1.95	
Field Dry Density (FDD) t/m <sup>3</sup>	**	**	
Peak Converted Wet Density t/m <sup>3</sup>	1.99	2.00	
Adjusted Peak Converted Wet Density t/m <sup>3</sup>	**	**	
Moisture Variation (Wv) %	2.5	2.0	
Adjusted Moisture Variation %	**	**	
Hilf Density Ratio (%)	<b>96.0</b>	<b>97.5</b>	
Compaction Method	<b>Standard</b>	<b>Standard</b>	
Report Remarks	**	**	

**Moisture Variation Note:**

Positive values = test is dry of OMC  
 Negative values = test is wet of OMC

# Material Test Report

**Report Number:** P18615-35  
**Issue Number:** 1  
**Date Issued:** 07/12/2020  
**Client:** Dunlop & Pitson Pty Ltd  
 24 Jewell Court , Bendigo VIC 3550  
**Project Number:** P18615  
**Project Name:** View Point Estate  
**Project Location:** Huntly  
**Work Request:** 8031  
**Date Sampled:** 02/12/2020  
**Dates Tested:** 02/12/2020 - 03/12/2020  
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted  
**Site Selection:** Selected by Client  
**Material Source:** Test Location



Geotechnical Testing Services (Southern)  
 Bendigo Soil and Concrete Testing Laboratory  
 13 Alstonvale Court East Bendigo VIC 3550  
 Phone: (03) 5441 4881  
 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki  
 NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	B20-8031A	B20-8031B	B20-8031C
Date Tested	02/12/2020	02/12/2020	02/12/2020
Time Tested	12:28	12:32	12:38
Test Request #/Location	Stage 3 House Block	Stage 3 House Block	Stage 5 House Block
Chainage (m)	Lot 488	Lot 487	Lot 521
Location Offset (m)	Front Centre	Front Centre	Centre
Layer / Reduced Level	FSL	FSL	-300
Thickness of Layer (mm)	300	300	300
Soil Description	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay
Test Depth (mm)	250	250	250
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0
Field Wet Density (FWD) t/m <sup>3</sup>	2.01	2.05	2.07
Field Dry Density (FDD) t/m <sup>3</sup>	**	**	**
Peak Converted Wet Density t/m <sup>3</sup>	2.00	1.99	1.93
Adjusted Peak Converted Wet Density t/m <sup>3</sup>	**	**	**
Moisture Variation (Wv) %	4.5	2.5	3.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	<b>100.5</b>	<b>103.0</b>	<b>107.5</b>
Compaction Method	<b>Standard</b>	<b>Standard</b>	<b>Standard</b>
Report Remarks	**	**	**

**Moisture Variation Note:**

Positive values = test is dry of OMC  
 Negative values = test is wet of OMC

# Material Test Report



**Report Number:** P18615-39  
**Issue Number:** 1  
**Date Issued:** 16/12/2020  
**Client:** Dunlop & Pitson Pty Ltd  
 24 Jewell Court , Bendigo VIC 3550  
**Project Number:** P18615  
**Project Name:** View Point Estate  
**Project Location:** Huntly  
**Work Request:** 8149  
**Date Sampled:** 16/12/2020  
**Dates Tested:** 16/12/2020 - 16/12/2020  
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted  
**Site Selection:** Selected by Client  
**Material Source:** Test Location

Geotechnical Testing Services (Southern)  
 Bendigo Soil and Concrete Testing Laboratory  
 13 Alstonvale Court East Bendigo VIC 3550  
 Phone: (03) 5441 4881  
 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki  
 NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1				
Sample Number	B20-8149A	B20-8149B	B20-8149C	B20-8149D
Date Tested	16/12/2020	16/12/2020	16/12/2020	16/12/2020
Time Tested	11:45	11:49	11:56	12:02
Test Request #/Location	Stage 5 Lot 531	Stage 5 Lot 530	Stage 5 Lot 529	Stage 5 Lot 493
Chainage (m)	Back of Block	Back of Block	Back of Block	Centre
Location Offset (m)	Centre	Centre	Centre	Centre
Layer / Reduced Level	-300	-1000	-300	FSL
Thickness of Layer (mm)	300	300	300	300
Soil Description	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay
Test Depth (mm)	250	250	250	250
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0
Field Wet Density (FWD) t/m <sup>3</sup>	2.02	2.09	1.98	1.92
Field Dry Density (FDD) t/m <sup>3</sup>	**	**	**	**
Peak Converted Wet Density t/m <sup>3</sup>	2.08	2.14	2.04	1.87
Adjusted Peak Converted Wet Density t/m <sup>3</sup>	**	**	**	**
Moisture Variation (Wv) %	1.5	0.5	3.0	4.5
Adjusted Moisture Variation %	**	**	**	**
Hilf Density Ratio (%)	<b>97.0</b>	<b>97.5</b>	<b>97.0</b>	<b>103.0</b>
Compaction Method	<b>Standard</b>	<b>Standard</b>	<b>Standard</b>	<b>Standard</b>
Report Remarks	**	**	**	**

**Moisture Variation Note:**

Positive values = test is dry of OMC  
 Negative values = test is wet of OMC



# Material Test Report

**Report Number:** P18615-40  
**Issue Number:** 1  
**Date Issued:** 18/12/2020  
**Client:** Dunlop & Pitson Pty Ltd  
 24 Jewell Court , Bendigo VIC 3550  
**Project Number:** P18615  
**Project Name:** View Point Estate  
**Project Location:** Huntly  
**Work Request:** 8167  
**Date Sampled:** 18/12/2020  
**Dates Tested:** 18/12/2020 - 18/12/2020  
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted  
**Site Selection:** Selected by Client  
**Material Source:** Test Location



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 13 Alstonvale Court East Bendigo VIC 3550  
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Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki  
 NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	B20-8167A		
Date Tested	18/12/2020		
Time Tested	09:54		
Test Request #/Location	Stage 5 Lot 486		
Chainage (m)	Centre		
Location Offset (m)	**		
Layer / Reduced Level	FSL		
Thickness of Layer (mm)	300		
Soil Description	Gravelly Silty Clay		
Test Depth (mm)	250		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	2		
Field Wet Density (FWD) t/m <sup>3</sup>	1.99		
Field Dry Density (FDD) t/m <sup>3</sup>	**		
Peak Converted Wet Density t/m <sup>3</sup>	**		
Adjusted Peak Converted Wet Density t/m <sup>3</sup>	2.00		
Moisture Variation (Wv) %	**		
Adjusted Moisture Variation %	2.5		
Hilf Density Ratio (%)	<b>99.5</b>		
Compaction Method	<b>Standard</b>		
Report Remarks	**		

**Moisture Variation Note:**

Positive values = test is dry of OMC  
 Negative values = test is wet of OMC