



# Australian Geotechnical Testing

## Level One Inspection and Testing

Project: Miravale Musico Stage 3A

Suburb: Angle Vale

Report No: AGTE21318



**Client: T & J Constructions**

**Date: 10<sup>th</sup> September 2021**

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Geotechnical	Pavement	Environmental	Residential	Design
Slope Stability Assessment	Land Capability Assessments	Erosion and Sediment Control Plan		
Retaining Walls	Level 1 Supervision	Earthworks Specification's	Percolation	

**Adelaide | Brisbane | Ballarat | Melbourne | Warrnambool**

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## 1 Introduction

Australian Geotechnical Testing (AGT) has been engaged by T & J Constructions to provide Level 1 Geotechnical Supervision for the Miravale Musico Stage 3A project. The Estate is located at Angle Vale.

This Level 1 report presents the results of supervision activities, compaction and moisture control, material placement and laboratory testing for ground works undertaken for the project. This report covers construction activities carried out from the 27<sup>th</sup> of April 2021 to the 1<sup>st</sup> of September 2021.

## 2 Scope of Works

The scope of works involved the placement of on-site General Fill. Fill Material was placed in Level one fill areas, in accordance with **AS 3798-2007, Guidelines on earthworks for commercial and residential developments and project specifications**. The level of FILL to be placed is less than 5m as per AS3798 Section 1.1.

The fill material is required as per AS3798 and the project specification to achieve:

- **95% Standard Maximum Dry Density (Compaction)**

General fill material used for the construction was locally sourced and predominantly comprising of Sandy Clay

## 3 Inspections / Supervision

Full-time Level 1 supervision and inspection was undertaken including the supervision and inspections regarding the stripping and removal as per AS3798 Section 3 shall have removed:

- Organic soils, such as topsoils, severely root affected subsoils and peat;
- Contaminated soils are part of the brief;
- Materials which undergo volume change or loss of strength when disturbed and exposed to moisture;
- Silts, or materials that have deleterious engineering properties of silt;
- Other materials with properties that are unsuitable for the forming of structural fill;
- Fill that contains wood, metal plastic, boulders or other deleterious material, in sufficient proportions to affect the required performance of the fill.
- The maximum particle size of any rocks or other lumps, within the layer, has not exceeded two-thirds ( $\frac{2}{3}$ ) of the compacted layer thickness.

The lots inspected were essentially homogeneous in relation to material type and moisture condition, rolling response and compaction technique and which has been used for the assessment of relative compaction of an area of work (AS3798 Section 1.2.8).

Prior to placement any existing filled ground, for which the conditions of the placement are not adequately documented have not been assumed to have been of either standard compaction or of the composition adequate to support fill or any loads has been removed (AS3798 Section 2).

## 4 Testing

The project was classified as Residential, thereby requiring a minimum compaction result of **95%** density ratio Standard Compaction for the **cohesive soils** (AS 1289 5.7.1 & 5.1.1)

throughout the Level 1 Fill and in accordance with AS 3798-2007 – Table 5.2. The test was performed using a Nuclear Density Gauge for field density determination AS 1289.5.8.1.

As a minimum testing was undertaken either 3 tests per lot, 1 test per 2,500m<sup>2</sup> per layer, or 1 test per 500m<sup>3</sup> throughout the placement of fill as per AS3798 Table 8.1.

The material was **site derived Sandy Clay and imported Gravelly Sandy Clay Fill**. The material was placed in approximately 250mm loose layers, rolling effort with on-site Compactor (to seal of each layer of placed General Fill material) to a compacted 200mm layer that achieved 95% Standard Compaction which met Australian Standards specifications. This was considered the best method to achieve compaction using the plant and machinery available.

The NATA compaction reports verify the achievement of the minimum density requirement of 95% Standard Compaction throughout the full depth area, with each layer tested accordingly. All test results were provided to our client: T & J Constructions for inclusion within their internal quality system.

At the completion of the structural layers and material within 150mm of permanent subgrade level in cuttings, test rolling was undertaken and the layers withstood test rolling without visible deformation or springing (AS 3798 Section 5.5).

The area covered by this Level 1 Supervision report is shown in the Site Plan (Refer to Appendix A). The results of the laboratory Testing are indicated in Appendix B.

## 5 Specific Lot's Level 1 has been completed on

The following lots have been supervised and tested under the level one for this report.

Lots												
744	745	746	747	748	749	750	751	752	753	754	755	
761	762	763	764	765	767	768	769	770				
772	773	774	774	775	789							
771	790											
791	792	793	794									

## 6 Conclusion

On the completion of the earthworks and after analysing the materials used, it has been concluded that the filling procedure conducted by **our client T & J Construction satisfied** the general requirements of AS 3798 regards to the placement of fill materials on a project under Level 1 Supervision and in accordance with the project specification as provided to AGT.

The fill meets the requirements for “structural fill for residential applications” in accordance with AS3798. The fill has been placed, compacted and tested in accordance with AS3798 and the fill meets the requirements for controlled fill in accordance with AS2870 (2011) “Residential Slabs and Footings”.

This report has been prepared for the benefit of our client with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without

our prior review and agreement. No responsibility for this report will be taken by AGT if it is altered in any way, or not reproduced in full.

## 7 Applicability

The findings and conclusions contained in this Report are made based on site conditions that existed at the time this work was conducted. The conclusions presented in this report are relevant to the conditions of the site and the state of legislation currently enacted as at the date of this report.

Findings and conclusions are made assuming that the soil, groundwater, geological and chemical conditions detailed within this report are accurate and remain applicable to the site at the time of writing. The conclusions of this report may become invalid if filling or excavation occurs after the boreholes and test pits referred to in this report were drilled or excavated. No other warranties are made or intended.

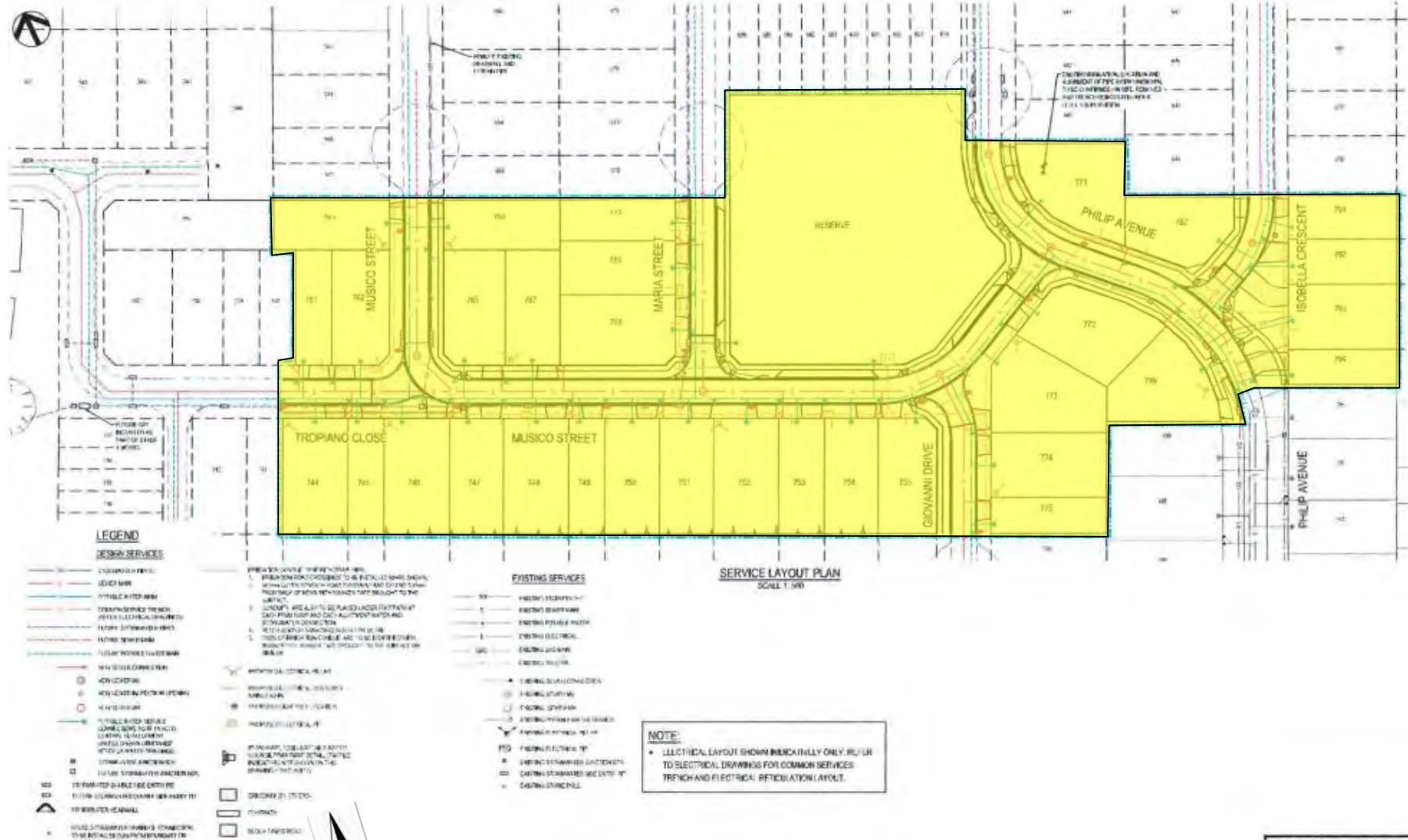
AGT has used a degree of skill and care ordinarily exercised by reputable members of our profession practicing in the same or similar locality.

AGT does not make any representation or warranty that the conclusions in this report will be applicable in the future as there may be changes in the condition of the site, applicable legislation or other factors that would affect the conclusions contained in this report. This report has been prepared exclusively for use by our Client. This report cannot be reproduced without the written authorisation of AGT and then can only be reproduced in its entirety.



Matt Noonan  
Senior Geotechnical, Pavement & Environmental Engineer  
CPENG (Civil & Geotechnical); NER; RPEQ  
BEng (Geological), Grad Cert (Pavement Technology)  
Cert IV (Training & Assessment), BCC, Grad Dip (Div)  
[mattn@ausgeotest.com.au](mailto:mattn@ausgeotest.com.au)  
0419 349 906

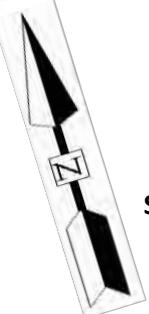
## Appendix A – Site Plan



**Key**



Level 1 Fill Location



SITE PLAN - NOT TO SCALE



Report No

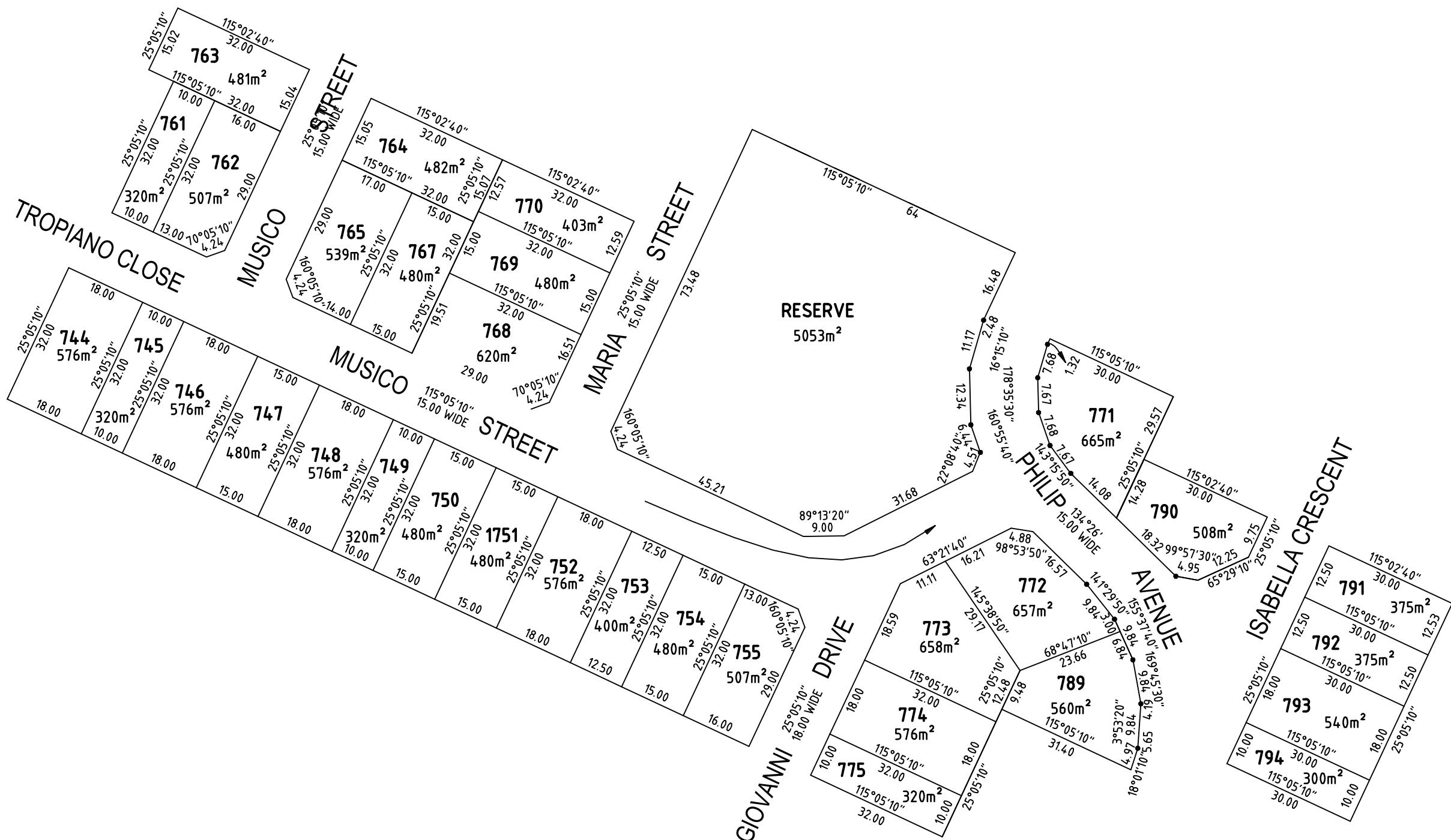
AGTE21318

**Cnr of Heaslip Rd & Curtis Rd**

**Angle Vale**

T & J Constructions Pty Ltd

FOR CONSTRUCTION

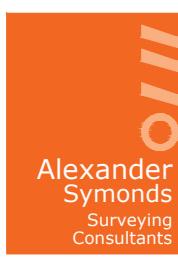


H	27.05.2021	STAGE 5 - LOTS 571,572,585 TO 589,594 TO 598 901 & 902	DEL
J	7.06.20201	STAGE 3A - LOTS 763,764,770 & 790 STAGE 3B - LOTS 547,553,578 & 643 STAGE 4 - LOTS 546 & 756 STAGE 6 - LOTS 644,667,677,678,814 & 815 STAGE 7 - LOTS 666 & 838	DEL
REV	DATE	DESCRIPTION	CALC FIELD
		ADDITIONS, AMENDMENTS AND APPROVALS	

Alexander & Symonds Pty Ltd  
11 King William Street Kent Town,  
South Australia 5067  
PO Box 1000 Kent Town, SA 5071  
ABN 93007 753 988

T (08) 8130 1666  
F (08) 8362 0099  
W [www.alexander.com.au](http://www.alexander.com.au)  
E [adelaide@alexander.com.au](mailto:adelaide@alexander.com.au)

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## MIRAVALE SOUTH STAGE 3A ANGLE VALE PEGGING PLAN

DRAWING No. 20A0478CAD South Rev J ST 3A SHEET 1

REVISION J

## Appendix B – Laboratory Testing

# Project Summary Report

**Report Date:** 10/09/2021  
**Client:** T&J Constructions Pty Ltd  
 132 Ryans Road, Green Fields SA 5107  
**Project Number:** AGT40902  
**Project Name:** Miravale Musico Stage 3A  
**Project Location:** Angle Vale  
**Specification:** 95% Standard AS1289 5.1.1  
**Test Methods:** AS 1289 5.1.1 STD & 5.4.1 & 5.8.1 & 2.1.1



Australian Geotechnical Testing

Adelaide Laboratory

37 Nicholson Road Evanston South SA 5116

Phone: 0435 111 647

Email: keithv@ausgeotest.com.au

Lot #	Sample #	Date Sampled	Location	Chainage (m)	Location Offset (m)	Elevation (m)	Layer	Relative Compaction (%)	Moisture Variation (%)	Moisture Content (%)	Field Wet Density (t/m³)
**	40902-1	27/04/2021	Sewer Main Zone 11 - SMB1-11	8	CL	>1m	Backfill 1	96.5	0.0	14.0	2.00
**	40902-2	27/04/2021	Sewer Main Zone 11 - SMB2-11	8	CL	>2m	Backfill 2	96.0	-0.5	13.5	2.00
**	40902-3	27/04/2021	Sewer Main Zone 11 - SMB3-11	12	CL	>3m	Backfill 3	98.5	0.5	13.7	2.01
**	40902-4	27/04/2021	Sewer Main Zone 11 - SMB4-11	6	CL	>4m	Backfill 4	97.0	2.0	13.1	2.02
**	40902-5	03/05/2021	Zone 1 - From NE Crn of Lot 791	5m S	10m W	**	Subgrade	97.5	-0.5	15.6	2.05
**	40902-6	03/05/2021	Zone 1 - From NE Crn of Lot 793	3m S	3m W	**	Subgrade	97.0	-0.5	16.5	2.03
**	40902-7	03/05/2021	Zone 1 - From NE Crn of Lot 792	10m S	12m W	**	Layer 1	97.5	-1.0	16.8	2.04
**	40902-8	03/05/2021	Zone 1 - From NE Crn of Lot 794	2m S	2m W	**	Layer 1	96.0	-0.5	17.0	2.04
**	40902-9	05/05/2021	Zone 2 - Lot 750 - Locations From SE Corner Of Lots	8m W	22m N	**	Subgrade	101.0	2.0	13.4	2.05
**	40902-10	05/05/2021	Zone 2 - Lot 752 - Locations From SE Corner Of Lots	2m W	8m N	**	Subgrade	100.0	1.0	13.8	2.01
**	40902-11	05/05/2021	Zone 2 - Lot 754 - Locations From SE Corner Of Lots	10m W	15m N	**	Subgrade	95.5	1.5	13.7	2.00
**	40902-12	05/05/2021	Zone 2 - Lot 751 - Locations From SE Corner Of Lots	7m W	24m N	**	Layer 1	99.0	2.5	12.9	2.06
**	40902-13	05/05/2021	Zone 2 - Lot 753 - Locations From SE Corner Of Lots	5m W	4m N	**	Layer 1	96.0	0.0	14.4	2.01
**	40902-14	05/05/2021	Zone 2 - Lot 755 - Locations From SE Corner Of Lots	12m W	17m N	**	Layer 1	98.0	3.0	12.2	2.01
**	40902-15	06/05/2021	Zone 2 - Lot 749 - Locations from SE Corner Of Lot	5m W	12m N	**	Subgrade	97.5	2.5	9.1	2.17
**	40902-16	06/05/2021	Zone 2 - Lot 747 - Locations from SE Corner Of Lot	8m W	16m N	**	Subgrade	98.0	2.0	8.9	2.17
**	40902-17	06/05/2021	Zone 2 - Lot 745 - Locations from SE Corner Of Lot	3m W	19m N	**	Subgrade	95.5	1.5	9.2	2.16
**	40902-18	06/05/2021	Zone 2 - Lot 744 - Locations from SE Corner Of Lot	12m W	6m N	**	Layer 1	98.5	2.0	8.9	2.18
**	40902-19	06/05/2021	Zone 2 - Lot 746 - Locations from SE Corner Of Lot	10m W	13m N	**	Layer 1	97.0	1.5	9.4	2.16
**	40902-20	06/05/2021	Zone 2 - Lot 748 - Locations from SE Corner Of Lot	6m W	21m N	**	Layer 1	98.0	2.5	8.5	2.17
**	40902-21	07/05/2021	Zone 2 - From SE Crn of Lot 755	6m N	3m N	**	Layer 2	97.5	1.5	7.8	2.17
**	40902-22	07/05/2021	Zone 2 - From SE Crn of Lot 752	10m N	5m W	**	Layer 2	96.5	1.5	7.3	2.22
**	40902-23	07/05/2021	Zone 2 - From SE Crn of Lot 750	2m N	7m W	**	Layer 2	98.5	2.0	7.8	2.18
**	40902-24	07/05/2021	Zone 2 - From SE Crn of Lot 747	5m N	10m W	**	Layer 2	96.0	3.5	6.7	2.16
**	40902-25	07/05/2021	Zone 2 - From SE Crn of Lot 745	8m N	3m W	**	Layer 2	98.0	4.0	5.3	2.14
**	40902-26	07/05/2021	Zone 2 - From SE Crn of Lot 744	2m N	11m W	**	Layer 2	97.0	2.5	7.1	2.14
**	40902-27	11/05/2021	Sewer Main Zone 10 - SMB1-10	12	CL	**	Backfill 1	103.5	3.5	12.6	2.06
**	40902-28	11/05/2021	Sewer Main Zone 10 - SMB2-10	22	CL	**	Backfill 2	102.0	2.0	14.7	2.05
**	40902-29	11/05/2021	Sewer Main Zone 10 - SMB3-10	28	CL	**	Backfill 3	102.5	3.0	13.8	2.03
**	40902-30	11/05/2021	Sewer Main Zone 10 - SMB4-10	16	CL	**	Backfill 4	101.0	2.0	15.1	2.03
**	40902-31	12/05/2021	Zone 2 - From SE Crn of Lot 754	23m N	7m W	**	Layer 3	99.5	1.5	9.2	2.16
**	40902-32	12/05/2021	Zone 2 - From SE Crn of Lot 751	10m N	9m W	**	Layer 3	99.5	2.0	9.3	2.14

Lot #	Sample #	Date Sampled	Location	Chainage (m)	Location Offset (m)	Elevation (m)	Layer	Relative Compaction (%)	Moisture Variation (%)	Moisture Content (%)	Field Wet Density (t/m3)
**	40902-33	12/05/2021	Zone 2- From SE Crn of Lot 748	16m N	5m W	**	Layer 3	99.0	2.0	9.5	2.15
**	40902-34	12/05/2021	Zone 2- From SE Crn of Lot 746	13m N	8m W	**	Layer 3	99.0	2.0	9.1	2.16
**	40902-35	12/05/2021	Zone 2- From SE Crn of Lot 750	10m N	2m W	**	Layer 3	101.0	3.0	11.0	2.17
**	40902-36	12/05/2021	Zone 2- From SE Crn of Lot 753	5m N	5m W	**	Layer 3	102.5	2.5	9.0	2.19
**	40902-37	13/05/2021	Sewer Main Zone 9 - SMB1-9	18	CL	**	Backfill 1	99.5	3.0	17.5	1.98
**	40902-38	13/05/2021	Sewer Main Zone 9 - SMB2-9	38	CL	**	Backfill 2	100.5	2.5	17.4	2.00
**	40902-39	13/05/2021	Sewer Main Zone 9 - SMB3-9	42	CL	**	Backfill 3	101.0	3.0	17.4	2.00
**	40902-40	13/05/2021	Sewer Main Zone 9 - SMB4-9	24	CL	**	Backfill 4	100.0	2.5	18.7	1.99
**	40902-41	14/05/2021	Zone 2 - From SW Cnr - Lot 746	4m N	8m E	**	Layer 4	101.5	2.0	9.7	2.14
**	40902-42	14/05/2021	Zone 2 - From SW Cnr - Lot 750	3m N	4m E	**	Layer 4	102.0	3.0	9.3	2.14
**	40902-43	14/05/2021	Zone 2 - From SW Cnr - Lot 753	5m N	10m E	**	Layer 4	103.0	3.0	9.7	2.15
**	40902-44	18/05/2021	Sewer Main Zone 8 - SMB1-8	5	CL	**	Backfill 1	98.0	3.5	12.7	1.95
**	40902-45	18/05/2021	Sewer Main Zone 8 - SMB2-8	15	CL	**	Backfill 2	99.5	4.5	13.0	1.96
**	40902-46	18/05/2021	Sewer Main Zone 8 - SMB3-8	29	CL	**	Backfill 3	97.5	2.5	14.1	1.94
**	40902-47	18/05/2021	Sewer Main Zone 8 - SMB4-8	44	CL	**	Backfill 4	99.0	4.0	13.4	1.97
**	40902-48	18/05/2021	Sewer Main Zone 7 - SMB1-7	10	CL	**	Backfill 1	104.0	4.5	12.0	1.98
**	40902-49	18/05/2021	Sewer Main Zone 7 - SMB2-7	22	CL	**	Backfill 2	101.5	4.0	13.3	1.96
**	40902-50	18/05/2021	Sewer Main Zone 7 - SMB3-7	40	CL	**	Backfill 3	103.0	4.5	13.5	1.97
**	40902-51	18/05/2021	Sewer Main Zone 6 - SMB1-6	15	CL	**	Backfill 1	101.5	4.5	12.0	1.97
**	40902-52	18/05/2021	Sewer Main Zone 6 - SMB2-6	30	CL	**	Backfill 2	100.0	4.0	14.2	1.96
**	40902-53	18/05/2021	Sewer Main Zone 6 - SMB3-6	45	CL	**	Backfill 3	102.0	3.5	13.0	2.00
**	40902-54	19/05/2021	Sewer Main Zone 4 - SMB1-4	5	CL	**	Layer 1	100.0	3.5	12.3	2.00
**	40902-55	19/05/2021	Sewer Main Zone 4 - SMB2-4	25	CL	**	Layer 2	96.5	2.0	12.6	1.93
**	40902-56	19/05/2021	Sewer Main Zone 4 - SMB3-4	40	CL	**	Layer 3	100.5	3.5	11.6	1.98
**	40902-57	19/05/2021	Sewer Main Zone 5 - SMB1-5	15	CL	**	Layer 1	98.5	4.5	11.1	1.96
**	40902-58	19/05/2021	Sewer Main Zone 5 - SMB2-5	32	CL	**	Layer 2	99.5	3.5	11.2	1.97
**	40902-59	19/05/2021	Sewer Main Zone 5 - SMB3-5	48	CL	**	Layer 3	99.5	4.5	12.8	1.98
**	40902-60	19/05/2021	Sewer Main Top Zone - SMT11	6	CL	**	Top Zone	103.0	2.0	14.3	2.01
**	40902-61	19/05/2021	Sewer Main Top Zone - SMT10	29	CL	**	Top Zone	103.5	3.5	14.3	2.00
**	40902-62	19/05/2021	Sewer Main Top Zone - SMT9	20	CL	**	Top Zone	101.0	1.5	17.5	2.00
**	40902-63	19/05/2021	Sewer Main Top Zone - SMT8	36	CL	**	Top Zone	102.5	2.0	15.6	2.00
**	40902-64	19/05/2021	Sewer Main Top Zone - SMT7	15	CL	**	Top Zone	100.0	1.0	17.0	2.02
**	40902-65	19/05/2021	Sewer Main Top Zone - SMT6	44	CL	**	Top Zone	101.5	4.5	13.8	2.01
**	40902-66	19/05/2021	Sewer Connection - SC1 Opposite Lot 792	**	**	**	Backfill	101.0	2.5	15.9	1.99
**	40902-67	19/05/2021	Sewer Connection - SC2 Opposite Lot 782	**	**	**	Backfill	98.0	5.0	14.0	1.96
**	40902-68	19/05/2021	Sewer Connection - SC3 Opposite Lot 775	**	**	**	Backfill	102.0	4.5	13.3	1.97
**	40902-69	20/05/2021	Zone 3 Allotment Fill - From SE crn of Lot 765	2m N	5m W	**	Subgrade	103.5	2.5	19.9	2.04
**	40902-70	20/05/2021	Zone 3 Allotment Fill - From SE crn of Lot 764	5m N	7m W	**	Layer 1	100.0	0.0	21.9	2.00
**	40902-71	20/05/2021	Zone 3 Allotment Fill - From SE crn of Lot 767	6m N	2m W	**	Layer 1	103.5	4.0	18.2	1.99
**	40902-72	20/05/2021	Zone 3 Allotment Fill - From SE crn of Lot 770	8m N	5m W	**	Layer 1	103.5	1.5	20.5	2.01
**	40902-73	20/05/2021	Zone 3 Allotment Fill - From SE crn of Lot 769	3m N	8m W	**	Layer 2	104.0	3.0	19.1	2.01
**	40902-74	20/05/2021	Zone 3 Allotment Fill - From SE crn of Lot 768	6m N	9m W	**	Layer 2	102.0	0.5	22.0	2.02

Lot #	Sample #	Date Sampled	Location	Chainage (m)	Location Offset (m)	Elevation (m)	Layer	Relative Compaction (%)	Moisture Variation (%)	Moisture Content (%)	Field Wet Density (t/m3)
**	40902-75	20/05/2021	Zone 4 Allotment Fill - From SE crn of Lot 761	8m N	3m W	**	Subgrade	99.5	3.5	20.5	2.01
**	40902-76	20/05/2021	Zone 4 Allotment Fill - From SE crn of Lot 763	2m N	3m W	**	Layer 1	103.0	2.5	21.0	2.04
**	40902-77	20/05/2021	Zone 4 Allotment Fill - From SE crn of Lot 762	8m N	6m W	**	Layer 2	101.5	3.5	20.5	2.02
**	40902-78	20/05/2021	Sewer Main Zone 3 - SMB1-3	20	CL	**	Layer 1	97.5	2.0	11.3	2.05
**	40902-79	20/05/2021	Sewer Main Zone 3 - SMB2-3	40	CL	**	Layer 2	97.5	1.5	10.5	2.02
**	40902-80	20/05/2021	Sewer Main Zone 2 - SMB1-2	15	CL	**	Layer 1	99.0	1.5	10.6	2.05
**	40902-81	20/05/2021	Sewer Main Zone 3 - SMB2-2	45	CL	**	Layer 2	98.5	1.5	10.2	2.04
**	40902-82	21/05/2021	Sewer Main Top Zone - SMT5	30	CL	**	Top Zone	104.0	4.0	16.7	2.06
**	40902-83	21/05/2021	Sewer Main Top Zone - SMT4	6	CL	**	Top Zone	101.5	4.5	15.1	1.99
**	40902-84	21/05/2021	Sewer Main Top Zone - SMT3	15	CL	**	Top Zone	103.0	2.5	13.5	2.05
**	40902-85	21/05/2021	Sewer Main Top Zone - SMT2	39	CL	**	Top Zone	101.5	3.0	13.4	2.04
**	40902-86	21/05/2021	Sewer Connection - SC4 Opposite Lot 770	**	**	**	Trench Fill	105.5	2.5	13.4	2.04
**	40902-87	21/05/2021	Sewer Connection - SC5 Opposite Lot 749	**	**	**	Trench Fill	100.5	-1.5	19.4	2.05
**	40902-88	01/06/2021	SACB1-1 - 0.5m Left of Chamber	**	**	**	Layer 1	95.0	0.5	14.9	1.97
**	40902-89	01/06/2021	SACB2-1 - 0.5m Left of Chamber	**	**	**	Layer 2	95.0	1.0	15.6	1.95
**	40902-90	01/06/2021	SACB3-1 - 0.5m Left of Chamber	**	**	**	Layer 3	95.0	1.5	14.2	1.96
**	40902-91	01/06/2021	SACB4-1 - 0.5m Left of Chamber	**	**	**	Layer 4	95.0	0.5	15.3	1.98
**	40902-92	01/06/2021	SACB1-2 - 0.5m Left of Chamber	**	**	**	Layer 1	95.0	1.0	14.9	1.97
**	40902-93	01/06/2021	SACB2-2 - 0.5m Left of Chamber	**	**	**	Layer 2	95.0	0.5	15.0	1.98
**	40902-94	01/06/2021	SACB3-2 - 0.5m Left of Chamber	**	**	**	Layer 3	98.0	1.5	14.3	1.99
**	40902-95	01/06/2021	SACB4-2 - 0.5m Left of Chamber	**	**	**	Layer 4	98.0	0.5	15.4	2.02
**	40902-96	01/06/2021	SACT1 - 0.5m Left of Chamber	**	**	**	Top Zone	98.0	-1.0	16.2	2.07
**	40902-97	01/06/2021	SACT2 - 0.5m Left of Chamber	**	**	**	Top Zone	99.0	0.0	15.3	2.05
**	40902-98	01/06/2021	Sewer Main Backfill - SMB1-1	25	CL	**	Layer 1	97.5	-0.5	15.0	2.03
**	40902-99	01/06/2021	Sewer Main Backfill - SMB2-1	42	CL	**	Layer 2	96.5	0.5	15.4	2.02
**	40902-100	01/06/2021	Sewer Main Top Zone - SMT1	21	CL	**	Top Zone	100.0	1.0	15.0	2.03
**	40902-101	01/06/2021	SC6 - Opposite Lot 760	**	**	**	Backfill	99.0	2.0	14.7	1.99
**	40902-102	01/06/2021	SC6 - Opposite Lot 755	**	**	**	Backfill	96.0	0.5	15.5	2.00
**	40902-103	07/06/2021	Water Main - MW12	5	CL	**	Overlay	100.0	3.0	7.0	1.89
**	40902-104	07/06/2021	Water Main - MW11	16	CL	**	Overlay	101.5	3.5	6.8	1.92
**	40902-105	07/06/2021	Water Main - MW10	21	CL	**	Overlay	102.0	3.0	7.0	1.93
**	40902-106	15/06/2021	Watermain Backfill - MW9	12	CL	**	Top Of Sand	100.5	3.0	7.3	1.95
**	40902-107	15/06/2021	Stormwater Backfill - SWB-10	31	CL	**	Overlay	96.0	6.0	4.2	2.00
**	40902-108	15/06/2021	Stormwater Backfill - SWB-11	8	CL	**	Overlay	97.0	6.5	4.8	1.99
**	40902-109	15/06/2021	Stormwater Backfill - SWB-14	3	CL	**	Overlay	96.0	6.5	4.0	1.98
**	40902-110	15/06/2021	Stormwater Backfill - SWB-12	15	CL	**	Overlay	97.5	6.0	4.7	2.00
**	40902-111	15/06/2021	Stormwater Backfill - SWB-13	18	CL	**	Overlay	96.0	5.5	5.4	1.98
**	40902-112	22/06/2021	Watermain Backfill - MW12	10	CL	**	Overlay	100.0	-2.5	12.9	2.00
**	40902-113	22/06/2021	Watermain Backfill - MW11	30	CL	**	Overlay	100.5	-2.0	12.0	2.00
**	40902-114	22/06/2021	Watermain Backfill - MW10	10	CL	**	Overlay	100.0	-3.0	13.1	2.01
**	40902-115	22/06/2021	Watermain Backfill - MW9	26	CL	**	Overlay	100.0	-2.0	12.3	1.99
**	40902-116	22/06/2021	Watermain Backfill - MW8	15	CL	**	Overlay	100.5	-2.5	12.9	2.01
**	40902-117	22/06/2021	Watermain Backfill - MW7	40	CL	**	Overlay	100.0	-3.0	13.1	2.01
**	40902-118	24/05/2021	Zone 5 - From SE Corner Of Lot 774	10m N	20m W	**	Subgrade	99.5	0.0	16.0	2.09

Lot #	Sample #	Date Sampled	Location	Chainage (m)	Location Offset (m)	Elevation (m)	Layer	Relative Compaction (%)	Moisture Variation (%)	Moisture Content (%)	Field Wet Density (t/m3)
**	40902-119	24/05/2021	Zone 5 - From SE Corner Of Lot 789	4m N	12m W	**	Subgrade	98.0	-0.5	15.9	2.07
**	40902-120	24/05/2021	Zone 6 - From SE Corner Of Lot 771	5m N	8m W	**	Subgrade	99.5	0.5	16.2	2.09
**	40902-121	25/05/2021	Zone 5 - From SE Corner Of Lot 775	5m N	16m W	**	Layer 1	97.5	0.0	15.9	2.07
**	40902-122	25/05/2021	Zone 5 - From SE Corner Of Lot 772	14m N	8m W	**	Layer 1	97.5	0.0	16.2	2.08
**	40902-123	25/05/2021	Zone 5 - From SE Corner Of Lot 773	6m N	20m W	**	Layer 2	97.5	0.0	15.8	2.08
**	40902-124	25/05/2021	Zone 5 - From SE Corner Of Lot 789	4m N	4m W	**	Layer 2	97.0	0.5	16.1	2.05
**	40902-125	25/05/2021	Zone 5 - From SE Corner Of Lot 774	9m N	10m W	**	Layer 2	98.0	-0.5	16.4	2.06
**	40902-126	25/05/2021	Zone 6 - From SE Corner Of Lot 771	16m N	11m W	**	Layer	97.5	0.0	15.5	2.08
**	40902-127	25/05/2021	Zone 6 - From SE Corner Of Lot 782	6m N	16m W	**	Layer	97.5	-0.5	15.3	2.07
**	40902-128	25/06/2021	Water Main - MW6	22	CL	**	Overlay	100.0	-2.0	12.1	1.99
**	40902-129	25/06/2021	Water Main - MW5	10	CL	**	Overlay	100.0	-2.0	12.2	2.00
**	40902-130	25/06/2021	Water Main - MW4	36	CL	**	Overlay	100.5	-2.5	12.5	2.01
**	40902-131	25/06/2021	Water Main - MW3	32	CL	**	Overlay	100.5	-1.5	11.8	2.00
**	40902-132	25/06/2021	Water Main - MW2	15	CL	**	Overlay	100.5	-2.5	12.5	2.00
**	40902-133	25/06/2021	Water Main - MW1	8	CL	**	Overlay	100.5	-2.5	12.9	2.02
**	40902-134	25/06/2021	Water Main Connections - MWC1	Lot 793	CL	**	Overlay	100.0	-3.0	13.1	2.01
**	40902-135	25/06/2021	Water Main Connections - MWC2	Lot 771	CL	**	Overlay	101.0	-2.5	12.8	2.02
**	40902-136	25/06/2021	Water Main Connections - MWC3	Lot 775	CL	**	Overlay	101.0	-2.0	12.4	2.01
**	40902-137	25/06/2021	Water Main Connections - MWC4	Lot 753	CL	**	Overlay	101.5	-1.5	11.9	2.02
**	40902-138	25/06/2021	Water Main Connections - MWC5	Lot 769	CL	**	Overlay	102.0	-2.0	12.2	2.03
**	40902-139	25/06/2021	Water Main Connections - MWC6	Lot 744	CL	**	Overlay	101.5	-2.0	12.2	2.03
**	40902-140	25/06/2021	Water Main Connections - MWC7	Lot 763	CL	**	Overlay	101.0	-2.0	12.0	2.01
**	40902-141	09/07/2021	Roadway - SG11	10	CL	**	Subgrade	100.0	2.5	13.2	1.94
**	40902-142	09/07/2021	Roadway - SG10	29	2m R From CL	**	Subgrade	100.0	2.0	13.7	2.00
**	40902-143	09/07/2021	Roadway - SG9	5	1.5m L From CL	**	Subgrade	100.0	1.5	21.9	1.97
**	40902-144	09/07/2021	Roadway - SG8	30	CL	**	Subgrade	99.0	3.0	19.8	1.94
**	40902-145	09/07/2021	Roadway - SG7	15	3m R From CL	**	Subgrade	99.5	4.0	12.6	1.96
**	40902-146	09/07/2021	Roadway - SG6	42	CL	**	Subgrade	100.5	0.5	22.6	1.96
**	40902-147	09/07/2021	Roadway - SG5	22	CL	**	Subgrade	99.5	0.5	20.5	1.92
**	40902-148	09/07/2021	Roadway - SG4	9	1m R From CL	**	Subgrade	99.5	0.5	22.5	1.92
**	40902-149	09/07/2021	Roadway - SG3	33	2m L From CL	**	Subgrade	99.0	0.5	22.6	1.94
**	40902-162	01/09/2021	Road Subbase SB1	CH 5	RHS	**	SB-1	**	2.0	3.3	**
**	40902-163	01/09/2021	Road Subbase SB3	CH 10	CL	**	SB-1	**	**	4.1	**
**	40902-164	01/09/2021	Road Subbase SB4	CH 6	CL	**	SB-1	**	**	3.8	**
**	40902-165	01/09/2021	Road Subbase SB6	CH 15	LHS	**	SB-1	**	**	3.8	**
**	40902-166	01/09/2021	Road Subbase SB8	CH 21	RHS	**	SB-1	**	**	4.0	**
**	40902-167	01/09/2021	Road Subbase SB9	CH 2	CL	**	SB-1	**	**	3.6	**
**	40902-168	01/09/2021	Road Subbase SB 10	CH 12	CL	**	SB -01	**	**	3.7	**
**	40902-169	01/09/2021	Road Subbase SB 1	CH 1	RHS	**	SB -02	**	**	3.6	**
**	40902-170	01/09/2021	Road Subbase SB 3	CH 3	CL	**	SB -02	**	**	4.0	**
**	40902-171	01/09/2021	Road Subbase SB 4	CH 18	LHS	**	SB -02	**	**	4.2	**
**	40902-172	01/09/2021	Road Subbase SB 6	CH 26	RHS	**	SB -02	**	**	4.5	**
**	40902-173	01/09/2021	Road Subbase SB 8	CJ 3	RHS	**	SB -02	**	**	4.4	**
**	40902-174	01/09/2021	Road Subbase SB 9	CH 7	CL	**	SB 2	**	**	4.2	**
**	40902-175	01/09/2021	Road Subbase SB 10	CH 10	RHS	**	SB 2	**	**	4.3	**
**	40902-176	01/09/2021	Road Subbase SB 2	CH 2	CL	**	SB	**	**	3.9	**
**	40902-177	01/09/2021	Road Subbase SB 5	CH 5	RHS	**	SB	**	**	3.8	**
**	40902-178	01/09/2021	Road Subbase SB 7	CH 7	RHS	**	SB	**	**	3.9	**
**	40902-179	01/09/2021	Road Subbase SB 11	CH 11	RHS	**	SB	**	**	3.4	**

**Moisture Variation Note:**

Positive values = test is dry of OMC

Negative values = test is wet of OMC

# Project Summary Report

**Report Date:** 10/09/2021  
**Client:** T&J Constructions Pty Ltd  
132 Ryans Road, Green Fields SA 5107  
**Project Number:** AGT40902  
**Project Name:** Miravale Musico Stage 3A  
**Project Location:** Angle Vale



Australian Geotechnical Testing

Adelaide Laboratory

37 Nicholson Road Evanston South SA 5116

Phone: 0435 111 647

Email: keithv@ausgeotest.com.au

**Moisture Variation Note:**

Positive values = test is dry of OMC

Negative values = test is wet of OMC

# Material Test Report

**Report Number:** AGT40902-2  
**Issue Number:** 1  
**Date Issued:** 03/06/2021  
**Client:** T&J Constructions Pty Ltd  
 132 Ryans Road, Green Fields SA 5107  
**Project Number:** AGT40902  
**Project Name:** Miravale Musico Stage 3A  
**Project Location:** Angle Vale  
**Work Request:** 3349  
**Date Sampled:** 03/05/2021  
**Dates Tested:** 05/05/2021 - 08/05/2021  
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted  
**Specification:** 95% Standard AS1289 5.1.1  
**Location:** Angle Vale



Australian Geotechnical Testing

Adelaide Laboratory

37 Nicholson Road Evanston South SA 5116

Phone: 0435 111 647

Email: JonL@ausgeotest.com.au

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Approved Signatory: Jon Lillecrapp

Testing Services Manager

NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1				
Sample Number	40902-5	40902-6	40902-7	40902-8
Date Tested	03/05/2021	03/05/2021	03/05/2021	03/05/2021
Time Tested	02:00	02:10	02:30	02:40
Test Request #/Location	Zone 1 - From NE Crn of Lot 791	Zone 1 - From NE Crn of Lot 793	Zone 1 - From NE Crn of Lot 792	Zone 1 - From NE Crn of Lot 794
Line / Offset	5m S	3m S	10m S	2m S
Offset	10m W	3m W	12m W	2m W
Layer / Reduced Level	Subgrade	Subgrade	Layer 1	Layer 1
Thickness of Layer (mm)	200	200	200	200
Soil Description	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay
Test Depth (mm)	150	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0
Oversize (dry basis) %	0	0	0	0
Curing Hours	24	24	24	24
Method used to Determine Plasticity	Visual Tactile	Visual Tactile	Visual Tactile	Visual Tactile
Field Wet Density t/m <sup>3</sup>	2.05	2.03	2.04	2.04
Field Moisture Content %	15.6	16.5	16.8	17.0
Field Dry Density t/m <sup>3</sup>	1.78	1.74	1.74	1.74
Maximum Dry Density t/m <sup>3</sup>	1.82	1.79	1.79	1.81
Adjusted Maximum Dry Density t/m <sup>3</sup>	**	**	**	**
Optimum Moisture Content (OMC) %	15.0	16.0	16.0	16.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**
Moisture Variation %	-0.5	-0.5	-1.0	-0.5
Moisture Ratio %	103.5	103.0	105.5	104.5
Density Ratio %	97.5	97.0	97.5	96.0
Compaction Method	Standard	Standard	Standard	Standard

## Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

# Material Test Report

**Report Number:** AGT40902-3  
**Issue Number:** 1  
**Date Issued:** 03/06/2021  
**Client:** T&J Constructions Pty Ltd  
 132 Ryans Road, Green Fields SA 5107  
**Project Number:** AGT40902  
**Project Name:** Miravale Musico Stage 3A  
**Project Location:** Angle Vale  
**Work Request:** 3353  
**Date Sampled:** 05/05/2021  
**Dates Tested:** 05/05/2021 - 17/05/2021  
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted  
**Specification:** 95% Standard AS1289 5.1.1  
**Site Selection:** Selected by Client  
**Location:** Angle Vale



Australian Geotechnical Testing

Adelaide Laboratory

37 Nicholson Road Evanston South SA 5116

Phone: 0435 111 647

Email: JonL@ausgeotest.com.au

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Approved Signatory: Jon Lillecrapp

Testing Services Manager

NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1						
Sample Number	40902-9	40902-10	40902-11	40902-12	40902-13	40902-14
Date Tested	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021	05/05/2021
Time Tested	09:00	09:50	10:45	11:50	13:20	14:00
Test Request #/Location	Zone 2 - Lot 750 - Locations From SE Corner Of Lots	Zone 2 - Lot 752 - Locations From SE Corner Of Lots	Zone 2 - Lot 754 - Locations From SE Corner Of Lots	Zone 2 - Lot 751 - Locations From SE Corner Of Lots	Zone 2 - Lot 753 - Locations From SE Corner Of Lots	Zone 2 - Lot 755 - Locations From SE Corner Of Lots
Line / Offset	8m W	2m W	10m W	7m W	5m W	12m W
Offset	22m N	8m N	15m N	24m N	4m N	17m N
Layer / Reduced Level	Subgrade	Subgrade	Subgrade	Layer 1	Layer 1	Layer 1
Thickness of Layer (mm)	200	200	200	200	200	200
Soil Description	Sandy Clay					
Test Depth (mm)	150	150	150	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0	0	0
Oversize (dry basis) %	0	0	0	0	0	0
Curing Hours	72	24	51.5	48	48	48
Method used to Determine Plasticity	Visual Tactile					
Field Wet Density t/m <sup>3</sup>	2.05	2.01	2.00	2.06	2.01	2.01
Field Moisture Content %	13.4	13.8	13.7	12.9	14.4	12.2
Field Dry Density t/m <sup>3</sup>	1.81	1.77	1.76	1.82	1.76	1.79
Maximum Dry Density t/m <sup>3</sup>	1.79	1.77	1.85	1.84	1.83	1.83
Adjusted Maximum Dry Density t/m <sup>3</sup>	**	**	**	**	**	**
Optimum Moisture Content (OMC) %	15.5	15.0	15.5	15.5	14.5	15.0
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**	**	**
Moisture Variation %	2.0	1.0	1.5	2.5	0.0	3.0
Moisture Ratio %	87.0	92.0	89.5	82.5	99.5	81.5
Density Ratio %	101.0	100.0	95.5	99.0	96.0	98.0
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard

## Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

# Material Test Report

**Report Number:** AGT40902-4  
**Issue Number:** 1  
**Date Issued:** 03/06/2021  
**Client:** T&J Constructions Pty Ltd  
 132 Ryans Road, Green Fields SA 5107  
**Project Number:** AGT40902  
**Project Name:** Miravale Musico Stage 3A  
**Project Location:** Angle Vale  
**Work Request:** 3368  
**Date Sampled:** 06/05/2021  
**Dates Tested:** 07/05/2021 - 25/05/2021  
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted  
**Specification:** 95% Standard AS1289 5.1.1  
**Site Selection:** Selected by Client  
**Location:** Angle Vale



Australian Geotechnical Testing

Adelaide Laboratory

37 Nicholson Road Evanston South SA 5116

Phone: 0435 111 647

Email: JonL@ausgeotest.com.au

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Approved Signatory: Jon Lillecrapp

Testing Services Manager

NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1						
Sample Number	40902-15	40902-16	40902-17	40902-18	40902-19	40902-20
Date Tested	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021	06/05/2021
Time Tested	10:00	10:15	10:30	14:30	14:40	14:55
Test Request #/Location	Zone 2 - Lot 749 - Locations from SE Corner Of Lot	Zone 2 - Lot 747 - Locations from SE Corner Of Lot	Zone 2 - Lot 745 - Locations from SE Corner Of Lot	Zone 2 - Lot 744 - Locations from SE Corner Of Lot	Zone 2 - Lot 746 - Locations from SE Corner Of Lot	Zone 2 - Lot 748 - Locations from SE Corner Of Lot
Line / Offset	5m W	8m W	3m W	12m W	10m W	6m W
Offset	12m N	16m N	19m N	6m N	13m N	21m N
Layer / Reduced Level	Subgrade	Subgrade	Subgrade	Layer 1	Layer 1	Layer 1
Thickness of Layer (mm)	200	200	200	200	200	200
Soil Description	Sandy Clay					
Test Depth (mm)	150	150	150	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0	0	0
Oversize (dry basis) %	0	0	0	0	0	0
Curing Hours	24.5	24.5	25	24.8	25	25.2
Method used to Determine Plasticity	Visual Tactile					
Field Wet Density t/m <sup>3</sup>	2.17	2.17	2.16	2.18	2.16	2.17
Field Moisture Content %	9.1	8.9	9.2	8.9	9.4	8.5
Field Dry Density t/m <sup>3</sup>	1.98	2.00	1.98	2.00	1.98	2.00
Maximum Dry Density t/m <sup>3</sup>	2.04	2.04	2.07	2.03	2.04	2.05
Adjusted Maximum Dry Density t/m <sup>3</sup>	**	**	**	**	**	**
Optimum Moisture Content (OMC) %	11.5	11.0	11.0	11.0	11.0	11.0
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**	**	**
Moisture Variation %	2.5	2.0	1.5	2.0	1.5	2.5
Moisture Ratio %	80.0	82.5	84.5	81.0	84.5	78.0
Density Ratio %	97.5	98.0	95.5	98.5	97.0	98.0
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard

## Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

# Material Test Report

**Report Number:** AGT40902-5  
**Issue Number:** 1  
**Date Issued:** 03/06/2021  
**Client:** T&J Constructions Pty Ltd  
 132 Ryans Road, Green Fields SA 5107  
**Project Number:** AGT40902  
**Project Name:** Miravale Musico Stage 3A  
**Project Location:** Angle Vale  
**Work Request:** 3383  
**Date Sampled:** 07/05/2021  
**Dates Tested:** 07/05/2021 - 25/05/2021  
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted  
**Specification:** 95% Standard AS1289 5.1.1  
**Location:** Angle Vale



Australian Geotechnical Testing

Adelaide Laboratory

37 Nicholson Road Evanston South SA 5116

Phone: 0435 111 647

Email: JonL@ausgeotest.com.au

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Approved Signatory: Jon Lillecrapp

Testing Services Manager

NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1						
Sample Number	40902-21	40902-22	40902-23	40902-24	40902-25	40902-26
Date Tested	07/05/2021	07/05/2021	07/05/2021	07/05/2021	07/05/2021	07/05/2021
Time Tested	10:50	11:00	11:10	02:40	02:50	03:00
Test Request #/Location	Zone 2- From SE Crn of Lot 755	Zone 2- From SE Crn of Lot 752	Zone 2- From SE Crn of Lot 750	Zone 2- From SE Crn of Lot 747	Zone 2- From SE Crn of Lot 745	Zone 2- From SE Crn of Lot 744
Line / Offset	6m N	10m N	2m N	5m N	8m N	2m N
Offset	3m N	5m W	7m W	10m W	3m W	11m W
Layer / Reduced Level	Layer 2					
Thickness of Layer (mm)	200	200	200	200	200	200
Soil Description	Sandy Clay					
Test Depth (mm)	150	150	150	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0	0	0
Oversize (dry basis) %	0	0	0	0	0	0
Curing Hours	93	93.2	93.5	93.5	93.2	93.5
Method used to Determine Plasticity	Visual Tactile					
Field Wet Density t/m <sup>3</sup>	2.17	2.22	2.18	2.16	2.14	2.14
Field Moisture Content %	7.8	7.3	7.8	6.7	5.3	7.1
Field Dry Density t/m <sup>3</sup>	2.02	2.07	2.02	2.02	2.03	2.00
Maximum Dry Density t/m <sup>3</sup>	2.07	2.14	2.06	2.11	2.07	2.07
Adjusted Maximum Dry Density t/m <sup>3</sup>	**	**	**	**	**	**
Optimum Moisture Content (OMC) %	9.5	9.0	9.5	10.0	9.0	9.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**	**	**
Moisture Variation %	1.5	1.5	2.0	3.5	4.0	2.5
Moisture Ratio %	83.0	81.0	80.5	65.5	57.5	73.0
Density Ratio %	97.5	96.5	98.5	96.0	98.0	97.0
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard

## Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

# Material Test Report

**Report Number:** AGT40902-7  
**Issue Number:** 1  
**Date Issued:** 03/06/2021  
**Client:** T&J Constructions Pty Ltd  
 132 Ryans Road, Green Fields SA 5107  
**Project Number:** AGT40902  
**Project Name:** Miravale Musico Stage 3A  
**Project Location:** Angle Vale  
**Work Request:** 3399  
**Date Sampled:** 12/05/2021  
**Dates Tested:** 12/05/2021 - 15/05/2021  
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted  
**Specification:** 95% Standard AS1289 5.1.1  
**Location:** Angle Vale



Australian Geotechnical Testing

Adelaide Laboratory

37 Nicholson Road Evanston South SA 5116

Phone: 0435 111 647

Email: JonL@ausgeotest.com.au

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*[Signature]*  
Approved Signatory: Jon Lillecrapp

Testing Services Manager

NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1						
Sample Number	40902-31	40902-32	40902-33	40902-34	40902-35	40902-36
Date Tested	12/05/2021	12/05/2021	12/05/2021	12/05/2021	12/05/2021	12/05/2021
Time Tested	12:00	12:20	12:40	01:00	01:20	01:40
Test Request #/Location	Zone 2- From SE Crn of Lot 754	Zone 2- From SE Crn of Lot 751	Zone 2- From SE Crn of Lot 748	Zone 2- From SE Crn of Lot 746	Zone 2- From SE Crn of Lot 750	Zone 2- From SE Crn of Lot 753
Line / Offset	23m N	10m N	16m N	13m N	10m N	5m N
Offset	7m W	9m W	5m W	8m W	2m W	5m W
Layer / Reduced Level	Layer 3					
Thickness of Layer (mm)	200	200	200	200	200	200
Soil Description	Gravelly Sandy Clay					
Test Depth (mm)	150	150	150	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0	0	0
Oversize (dry basis) %	0	0	0	0	0	0
Curing Hours	96	96	96	96	96	96
Method used to Determine Plasticity	Visual Tactile					
Field Wet Density t/m <sup>3</sup>	2.16	2.14	2.15	2.16	2.17	2.19
Field Moisture Content %	9.2	9.3	9.5	9.1	11.0	9.0
Field Dry Density t/m <sup>3</sup>	1.98	1.96	1.96	1.98	1.95	2.01
Maximum Dry Density t/m <sup>3</sup>	1.99	1.97	1.98	2.00	1.93	1.96
Adjusted Maximum Dry Density t/m <sup>3</sup>	**	**	**	**	**	**
Optimum Moisture Content (OMC) %	11.0	11.0	11.5	11.0	14.0	11.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**	**	**
Moisture Variation %	1.5	2.0	2.0	2.0	3.0	2.5
Moisture Ratio %	84.5	84.0	82.0	81.5	78.0	79.5
Density Ratio %	99.5	99.5	99.0	99.0	101.0	102.5
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard

## Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

# Material Test Report

**Report Number:** AGT40902-9  
**Issue Number:** 1  
**Date Issued:** 03/06/2021  
**Client:** T&J Constructions Pty Ltd  
 132 Ryans Road, Green Fields SA 5107  
**Project Number:** AGT40902  
**Project Name:** Miravale Musico Stage 3A  
**Project Location:** Angle Vale  
**Work Request:** 3429  
**Dates Tested:** 17/05/2021 - 19/05/2021  
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted  
**Specification:** 95% Standard AS1289 5.1.1  
**Site Selection:** Selected by Client  
**Location:** Angle Vale



Australian Geotechnical Testing

Adelaide Laboratory

37 Nicholson Road Evanston South SA 5116

Phone: 0435 111 647

Email: JonL@ausgeotest.com.au

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Approved Signatory: Jon Lillecrapp

Testing Services Manager

NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	40902-41	40902-42	40902-43
Date Tested	14/05/2021	14/05/2021	14/05/2021
Time Tested	12:50	13:20	14:10
Test Request #/Location	Zone 2 - From SW Cnr - Lot 746	Zone 2 - From SW Cnr - Lot 750	Zone 2 - From SW Cnr - Lot 753
Line / Offset	4m N	3m N	5m N
Offset	8m E	4m E	10m E
Layer / Reduced Level	Layer 4	Layer 4	Layer 4
Thickness of Layer (mm)	200	200	200
Soil Description	Sandy Clay	Sandy Clay	Sandy Clay
Test Depth (mm)	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Curing Hours	48	48	48
Method used to Determine Plasticity	Visual Tactile	Visual Tactile	Visual Tactile
Field Wet Density t/m <sup>3</sup>	2.14	2.14	2.15
Field Moisture Content %	9.7	9.3	9.7
Field Dry Density t/m <sup>3</sup>	1.95	1.95	1.96
Maximum Dry Density t/m <sup>3</sup>	1.92	1.91	1.90
Adjusted Maximum Dry Density t/m <sup>3</sup>	**	**	**
Optimum Moisture Content (OMC) %	11.5	12.5	12.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**
Moisture Variation %	2.0	3.0	3.0
Moisture Ratio %	84.5	75.0	77.0
Density Ratio %	<b>101.5</b>	<b>102.0</b>	<b>103.0</b>
Compaction Method	Standard	Standard	Standard

## Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

# Material Test Report

**Report Number:** AGT40902-15  
**Issue Number:** 1  
**Date Issued:** 11/06/2021  
**Client:** T&J Constructions Pty Ltd  
 132 Ryans Road, Green Fields SA 5107  
**Project Number:** AGT40902  
**Project Name:** Miravale Musico Stage 3A  
**Project Location:** Angle Vale  
**Work Request:** 3473  
**Date Sampled:** 20/05/2021  
**Dates Tested:** 20/05/2021 - 27/05/2021  
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted  
**Specification:** 95% Standard AS1289 5.1.1  
**Location:** Angle Vale



Australian Geotechnical Testing

Adelaide Laboratory

37 Nicholson Road Evanston South SA 5116

Phone: 0435 111 647

Email: JonL@ausgeotest.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Jon Lillecrapp

Testing Services Manager

NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1						
Sample Number	40902-69	40902-70	40902-71	40902-72	40902-73	40902-74
Date Tested	20/05/2021	20/05/2021	20/05/2021	20/05/2021	20/05/2021	20/05/2021
Time Tested	09:00	09:15	09:30	09:45	10:00	10:15
Test Request #/Location	Zone 3 Allotment Fill - From SE crn of Lot 765	Zone 3 Allotment Fill - From SE crn of Lot 764	Zone 3 Allotment Fill - From SE crn of Lot 767	Zone 3 Allotment Fill - From SE crn of Lot 770	Zone 3 Allotment Fill - From SE crn of Lot 769	Zone 3 Allotment Fill - From SE crn of Lot 768
Line / Offset	2m N	5m N	6m N	8m N	3m N	6m N
Offset	5m W	7m W	2m W	5m W	8m W	9m W
Layer / Reduced Level	Subgrade	Layer 1	Layer 1	Layer 1	Layer 2	Layer 2
Thickness of Layer (mm)	200	200	200	200	200	200
Soil Description	Sandy Clay					
Test Depth (mm)	150	150	150	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0	0	0
Oversize (dry basis) %	0	0	0	0	0	0
Curing Hours	19.5	18.5	19.8	20	20.3	20.1
Method used to Determine Plasticity	Visual Tactile					
Field Wet Density t/m <sup>3</sup>	2.04	2.00	1.99	2.01	2.01	2.02
Field Moisture Content %	19.9	21.9	18.2	20.5	19.1	22.0
Field Dry Density t/m <sup>3</sup>	1.70	1.64	1.69	1.67	1.68	1.65
Maximum Dry Density t/m <sup>3</sup>	1.64	1.64	1.63	1.62	1.62	1.62
Adjusted Maximum Dry Density t/m <sup>3</sup>	**	**	**	**	**	**
Optimum Moisture Content (OMC) %	22.5	22.0	22.5	22.0	22.0	22.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**	**	**
Moisture Variation %	2.5	0.0	4.0	1.5	3.0	0.5
Moisture Ratio %	89.0	100.5	81.5	93.0	87.0	97.5
Density Ratio %	103.5	100.0	103.5	103.5	104.0	102.0
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard

## Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

# Material Test Report

**Report Number:** AGT40902-16  
**Issue Number:** 1  
**Date Issued:** 11/06/2021  
**Client:** T&J Constructions Pty Ltd  
 132 Ryans Road, Green Fields SA 5107  
**Project Number:** AGT40902  
**Project Name:** Miravale Musico Stage 3A  
**Project Location:** Angle Vale  
**Work Request:** 3474  
**Date Sampled:** 20/05/2021  
**Dates Tested:** 20/05/2021 - 26/05/2021  
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted  
**Specification:** 95% Standard AS1289 5.1.1  
**Location:** Angle Vale



Australian Geotechnical Testing

Adelaide Laboratory

37 Nicholson Road Evanston South SA 5116

Phone: 0435 111 647

Email: JonL@ausgeotest.com.au

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Approved Signatory: Jon Lillecrapp

Testing Services Manager

NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	40902-75	40902-76	40902-77
Date Tested	20/05/2021	20/05/2021	20/05/2021
Time Tested	10:30	10:45	11:00
Test Request #/Location	Zone 4 Allotment Fill - From SE crn of Lot 761	Zone 4 Allotment Fill - From SE crn of Lot 763	Zone 4 Allotment Fill - From SE crn of Lot 762
Line / Offset	8m N	2m N	8m N
Offset	3m W	3m W	6m W
Layer / Reduced Level	Subgrade	Layer 1	Layer 2
Thickness of Layer (mm)	200	200	200
Soil Description	Sandy Clay	Sandy Clay	Sandy Clay
Test Depth (mm)	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Curing Hours	144	144	144
Method used to Determine Plasticity	Visual Tactile	Visual Tactile	Visual Tactile
Field Wet Density t/m <sup>3</sup>	2.01	2.04	2.02
Field Moisture Content %	20.5	21.0	20.5
Field Dry Density t/m <sup>3</sup>	1.67	1.68	1.67
Maximum Dry Density t/m <sup>3</sup>	1.68	1.64	1.65
Adjusted Maximum Dry Density t/m <sup>3</sup>	**	**	**
Optimum Moisture Content (OMC) %	24.0	23.5	24.0
Adjusted Optimum Moisture Content (OMC) %	**	**	**
Moisture Variation %	3.5	2.5	3.5
Moisture Ratio %	86.0	90.0	86.0
Density Ratio %	99.5	103.0	101.5
Compaction Method	Standard	Standard	Standard

**Moisture Variation Note:**

Positive values = test is dry of OMC

Negative values = test is wet of OMC

# Material Test Report

**Report Number:** AGT40902-30  
**Issue Number:** 1  
**Date Issued:** 26/06/2021  
**Client:** T&J Constructions Pty Ltd  
 132 Ryans Road, Green Fields SA 5107  
**Project Number:** AGT40902  
**Project Name:** Miravale Musico Stage 3A  
**Project Location:** Angle Vale  
**Work Request:** 3819  
**Date Sampled:** 24/06/2021  
**Dates Tested:** 19/06/2021 - 19/06/2021  
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted  
**Specification:** 98% Standard AS1289 5.1.1  
**Site Selection:** Selected by Client  
**Location:** Angle Vale



Australian Geotechnical Testing

Adelaide Laboratory

37 Nicholson Road Evanston South SA 5116

Phone: 0435 111 647

Email: LokyM@ausgeotest.com.au

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Approved Signatory: Loky Maynard

Laboratory Manager

NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	40902-118	40902-119	40902-120
Date Tested	24/05/2021	24/05/2021	24/05/2021
Time Tested	09:00	09:10	09:20
Test Request #/Location	Zone 5 - From SE Corner Of Lot 774	Zone 5 - From SE Corner Of Lot 789	Zone 6 - From SE Corner Of Lot 771
Line / Offset	10m N	4m N	5m N
Offset	20m W	12m W	8m W
Layer / Reduced Level	Subgrade	Subgrade	Subgrade
Thickness of Layer (mm)	200	200	200
Soil Description	Sandy Clay	Sandy Clay	Sandy Clay
Test Depth (mm)	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	**	**	**
Oversize (dry basis) %	**	**	**
Curing Hours	47.0	47.0	47.0
Method used to Determine Plasticity	Visual/Tactile	Visual/Tactile	Visual/Tactile
Field Wet Density t/m <sup>3</sup>	2.09	2.07	2.09
Field Moisture Content %	16.0	15.9	16.2
Field Dry Density t/m <sup>3</sup>	1.80	1.79	1.80
Maximum Dry Density t/m <sup>3</sup>	1.81	1.82	1.81
Adjusted Maximum Dry Density t/m <sup>3</sup>	**	**	**
Optimum Moisture Content (OMC) %	16.0	15.5	16.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**
Moisture Variation %	0.0	-0.5	0.5
Moisture Ratio %	98.5	103.0	98.0
Density Ratio %	99.5	98.0	99.5
Compaction Method	Standard	Standard	Standard

## Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

# Material Test Report

**Report Number:** AGT40902-31  
**Issue Number:** 1  
**Date Issued:** 26/06/2021  
**Client:** T&J Constructions Pty Ltd  
 132 Ryans Road, Green Fields SA 5107  
**Project Number:** AGT40902  
**Project Name:** Miravale Musico Stage 3A  
**Project Location:** Angle Vale  
**Work Request:** 3820  
**Date Sampled:** 25/05/2021  
**Dates Tested:** 19/06/2021 - 19/06/2021  
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted  
**Specification:** 95% Standard AS1289 5.1.1  
**Site Selection:** Selected by Client  
**Location:** Angle Vale



Australian Geotechnical Testing

Adelaide Laboratory

37 Nicholson Road Evanston South SA 5116

Phone: 0435 111 647

Email: LokyM@ausgeotest.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Loky Maynard

Laboratory Manager

NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1					
Sample Number	40902-121	40902-122	40902-123	40902-124	40902-125
Date Tested	25/05/2021	25/05/2021	25/05/2021	25/05/2021	25/05/2021
Time Tested	09:00	09:15	14:00	14:10	14:15
Test Request #/Location	Zone 5 - From SE Corner Of Lot 775	Zone 5 - From SE Corner Of Lot 772	Zone 5 - From SE Corner Of Lot 773	Zone 5 - From SE Corner Of Lot 789	Zone 5 - From SE Corner Of Lot 774
Line / Offset	5m N	14m N	6m N	4m N	9m N
Offset	16m W	8m W	20m W	4m W	10m W
Layer / Reduced Level	Layer 1	Layer 1	Layer 2	Layer 2	Layer 2
Thickness of Layer (mm)	200	200	200	200	200
Soil Description	Sandy Clay				
Test Depth (mm)	150	150	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0	19.0	19.0
Oversize (wet basis) %	**	**	**	**	**
Oversize (dry basis) %	**	**	**	**	**
Curing Hours	47.0	47.0	47.0	47.0	47.0
Method used to Determine Plasticity	Visual/Tactile	Visual/Tactile	**	Visual/Tactile	Visual/Tactile
Field Wet Density t/m <sup>3</sup>	2.07	2.08	2.08	2.05	2.06
Field Moisture Content %	15.9	16.2	15.8	16.1	16.4
Field Dry Density t/m <sup>3</sup>	1.78	1.79	1.79	1.77	1.77
Maximum Dry Density t/m <sup>3</sup>	1.83	1.84	1.84	1.82	1.81
Adjusted Maximum Dry Density t/m <sup>3</sup>	**	**	**	**	**
Optimum Moisture Content (OMC) %	16.0	16.0	16.0	16.5	16.0
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**	**
Moisture Variation %	0.0	0.0	0.0	0.5	-0.5
Moisture Ratio %	99.0	101.5	99.0	98.0	102.0
Density Ratio %	97.5	97.5	97.5	97.0	98.0
Compaction Method	Standard	Standard	Standard	Standard	Standard

## Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

# Material Test Report

**Report Number:** AGT40902-32  
**Issue Number:** 1  
**Date Issued:** 26/06/2021  
**Client:** T&J Constructions Pty Ltd  
 132 Ryans Road, Green Fields SA 5107  
**Project Number:** AGT40902  
**Project Name:** Miravale Musico Stage 3A  
**Project Location:** Angle Vale  
**Work Request:** 3821  
**Date Sampled:** 25/05/2021  
**Dates Tested:** 19/06/2021 - 19/06/2021  
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted  
**Specification:** 95% Standard AS1289 5.1.1  
**Site Selection:** Selected by Client  
**Location:** Angle Vale



Australian Geotechnical Testing

Adelaide Laboratory

37 Nicholson Road Evanston South SA 5116

Phone: 0435 111 647

Email: LokyM@ausgeotest.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Loky Maynard

Laboratory Manager

NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1		
Sample Number	40902-126	40902-127
Date Tested	25/05/2021	25/05/2021
Time Tested	10:00	14:30
Test Request #/Location	Zone 6 - From SE Corner Of Lot 771	Zone 6 - From SE Corner Of Lot 782
Line / Offset	16m N	6m N
Offset	11m W	16m W
Layer / Reduced Level	Layer	Layer
Thickness of Layer (mm)	200	200
Soil Description	Sandy Clay	Sandy Clay
Test Depth (mm)	150	150
Fraction Tested (mm)	19.0	19.0
Oversize (wet basis) %	**	**
Oversize (dry basis) %	**	**
Curing Hours	47.0	47.0
Method used to Determine Plasticity	Visual/Tactile	Visual/Tactile
Field Wet Density t/m <sup>3</sup>	2.08	2.07
Field Moisture Content %	15.5	15.3
Field Dry Density t/m <sup>3</sup>	1.80	1.80
Maximum Dry Density t/m <sup>3</sup>	1.85	1.84
Adjusted Maximum Dry Density t/m <sup>3</sup>	**	**
Optimum Moisture Content (OMC) %	15.5	15.0
Adjusted Optimum Moisture Content (OMC) %	**	**
Moisture Variation %	0.0	-0.5
Moisture Ratio %	101.0	103.5
Density Ratio %	97.5	97.5
Compaction Method	Standard	Standard

## Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC