ABN: 51 612 825 313

8 Freedman Street

North Geelong, Vic, 3150

(P) +61 3 5282 1566

LEVEL 1 INSPECTION & TESTING
ASPIRE ESTATE STAGE 35B
FRASER RISE

Prepared for Winslow Constructors Pty Ltd

Report Reference: GSSW2548-6

Date: 9 April 2025

ABN: 51 612 825 313

8 Freedman Street

North Geelong, Vic, 3215

(P) +61 3 5282 1566

PROJECT DETAILS

Project Reference	GSSW2548-6	Rev	0
Project Title	Aspire Estate Stage 35B		
Project Location	Lara	State	VIC
Date	9 April 2025		

CLIENT DETAILS

Prepared For (Client)	Winslow Constructors Pty Ltd
Client Address	50 Barry Road, Campbellfield VIC 3061

DISTRIBUTION

Original Held By	Ground Science South West Pty Ltd
One (1) Electronic Copy	Winslow Constructors Pty Ltd

This document presents the results of the Level 1 Inspection and Testing performed by Ground Science South West for the aforementioned project, as the nominated project Geotechnical Inspection & Testing Authority (GITA). This report is detailed for the sole use of the intended recipient(s). Should you have any questions related to this report please do not hesitate to contact the undersigned.

AUTHOR:

Michael Knez
Geotechnical Engineer

REVIEWED:

Gee Singh, RPEng
Senior Geotechnical Engineer

Table of Contents

1. INTRODUCTION

This report presents the results of the inspection activities, compaction control and laboratory testing services performed by Ground Science South West Pty Ltd for the Aspire Estate Stage 35B project, located in Fraser Rise, Victoria (the site).

2. PROJECT UNDERSTANDING

It is understood that the project involves the placement of fill as part of the bulk earthworks phase for Aspire Estate Stage 35B. Ground Science South West was engaged to provide Level 1 Inspection and Testing services for the construction of these areas. Authorisation to proceed was provided by Winslow Constructors Pty Ltd (the 'Client').

Level 1 Inspection & Testing, as defined in AS3798 (2007) 'Guidelines on Earthworks for Commercial and Residential Developments' provides for full time inspection of the construction of controlled fill and compaction testing in accordance with AS1289 'Methods of Testing Soils for Engineering Purposes' and AS1726 (2017) 'Geotechnical Site Investigations'.

Ground Science South West performed the role of the project Geotechnical Inspection & Testing Authority (GITA) with all Level 1 Inspection and Testing services described in this report undertaken by an experienced GITA site representative.

3. SCOPE OF WORK

3.1 AREAS OF WORK

Ground Science South West provided Level 1 Inspection and Testing services for the backfill of a swale drain inside the residential lots. The areas requiring Level 1 Inspection & Testing are shown on the supplied construction drawing, shown in Figure 1, prepared by Breese Pitt Dixon Pty Ltd (Aspire Estate Stage 35B – Layout Plan [No. 8226-35B-E-R&D Rev A]).

This report details the Level 1 earthworks process performed on site which commenced on 13 March 2025 and was completed on 25 March 2025, requiring 6 full days and 5 half days of inspection and testing works.

3.2 PLACEMENT METHODOLOGY

A technical specification for the fill operations was not provided. The placement of controlled fill on the above-mentioned areas was carried out in accordance with Level 1 fill procedures as detailed in AS3798 (2007) 'Guidelines on Earthworks for Commercial and Residential Developments'. The following fill placement guideline was adopted for the works:

- All existing loose surficial fill, topsoil, soft material, vegetation and materials containing significant organic matter were removed to expose the natural soil subgrade;
- Suitable fill material, sourced by the contractor and approved by Ground Science South West, was placed in loose horizontal layers not exceeding 300mm in thickness;
- The controlled fill material was compacted to achieve a target Dry Density Ratio of at least 95% Standard Compaction (AS 1289: 5.1.1, 5.4.1 or 5.7.1), based on our understanding that future building loads would be similar to residential type structures (i.e. non-commercial structural loading);
- The fill was moisture conditioned to within +/- 2% of the standard optimum moisture content;
- The fill material was sorted and mixed to eliminate particles greater than 20% by volume, particles coarser than 37.5mm and no particle over 200mm in any dimension;
- The frequency of field density testing adopted for the project was generally in line with the requirements for large scale developments (Type 1), as detailed in AS3798 (2007), which nominates a frequency of

not less than:

- 1 test per layer or 200mm per 2500m^2;
- 1 test per 500m^3 distributed reasonably evenly throughout the full depth and area; or
- 3 tests per site visit; whichever requires the most tests.

4. INSPECTION AND TESTING

4.1 SUBGRADE PREPARATION

This on-site contractor began removing unsuitable materials including any organics, topsoil and compressible (soft) soils on 13 March 2025, as witnessed by a representative geotechnician from Ground Science South West. Stripping works started on lots 3547 to 3553 (between Mamic Boulevard and Gec Boulevard).

Inspection of the prepared subgrade surface on the above lots was carried out on 13 March 2025 by the representative geotechnician from Ground Science South West. At the time of the inspection, the prepared subgrade surface was deemed acceptable and considered suitable for subsequent works to proceed. The prepared subgrade surface was assessed using the following methodology:

- The surface was visually inspected by the representative geotechnician from Ground Science South West, using tactile methods described in AS1726 (2017), to ensure it was free of unsuitable materials (organics, topsoil and compressible, soft soils);
- A proof roll using a water cart loaded to a weight of at least 20 tonnes was performed over these lots;
- If soft spots were observed, these would be remedied by removing the material in the presence of the representative geotechnician and proof rolled again, until the area showed no deflection.

Further inspections of the prepared subgrade surface were performed over the course of the works as stripping works progressed alongside placement of controlled fill on previously approved lots. The above methodology was adopted to assess the stripped subgrade surface and was approved by the GITA representative.

4.2 CONSTRUCTION MATERIALS

The fill material used in this project was nominated by the on-site contractor. All materials used for the project were site won material sourced from onsite cutting works. The material was carted across site in highway trucks and stockpiled adjacent to the fill zones prior to filling. Ground Science South West performed an assessment of the fill source to identify the following material characteristics:

- Material suitability as an engineering property;
- Cohesiveness;
- Free of building debris and vegetative matter;
- Free of oversize rock particles.

Visual assessments on the above-mentioned properties were conducted on-site and the fill material used was considered acceptable for use on this project. The nominated fill products were visually assessed to comprise of CLAY (CI-CH), ranging from with to trace gravel, trace sand, red/brown, medium to high plasticity, gravel fine to coarse, sand fine to coarse grained, and dry to moist. Quality assurance tests were performed on the stockpiled fill material before placement. These tests include Particle Size Distribution and Atterberg Limits tests. The test report sheets are presented in Appendix A. Ground Science did not perform any chemical or environmental analysis on the above fill material.

The fill source was assessed to range from dry to close of the optimum moisture content. Portions of the fill material that were found to be dry were moisture conditioned using a water cart prior to compaction. All fill materials were generally considered suitable for use as engineered fill.

4.3 FILL CONSTRUCTION

The contractor had the following plant available on site during the construction period for use in the fill placement;

- Highway Truck;
- Excavator;
- Bulldozer;
- Scraper;
- Grader;
- Water Cart;
- Padfoot Compactor.

During fill placement, the weather conditions ranged from sunny to rainy with temperatures typically ranging from 9 to 33 degrees Celsius.

The filling process was generally consistent throughout the project and involved using a highway truck to cart the approved fill material across site to be stockpiled adjacent to the fill placement zones. The material was spread using a bulldozer or grader into thin, loose layers. These layers were moisture conditioned by a water cart, applying a minimum of 1-2 passes to bring the placed material close to optimum moisture content.

Each layer was compacted using a padfoot roller applying a minimum of 8-10 passes, per layer observed. The thin layers of fill were compacted to form a composite layer, measuring 200mm thick, prior to undertaking the field density testing. This process was adopted for the fill placement works.

4.4 RESULTS OF COMPACTION CONTROL TESTING

Level 1 Inspection and Testing was undertaken by experienced technicians from Ground Science South West who attended the site for the duration of the construction phase and nominated the location of the in-situ density tests. Testing comprised a total of 17 in-situ density tests using a nuclear moisture-density gauge in accordance with Australian Standard (AS1289 5.8.1) together with 17 “Rapid HILF” Compaction tests (AS1289 5.7.1).

A summary of the field density and compaction control testing is presented in Appendix B. Field density and compaction control testing report sheets are presented in Appendix C. It should be noted that the tests are a representation of the fill placed and support the visual assessment of the works completed. All tests areas achieved the required target density ratio and moisture ratio.

4.5 FINAL SURFACE LEVELS

Observations were made by a Ground Science South West staff member that filling had been complete up to the nominated finished levels as per confirmation provided from the contractor’s site foreman. We understand that the observed final levels are the constructed finished surface levels of the controlled fill. The overall fill depths are estimated using onsite visual tactile methods and may not be a true representation of fill depths given that conditions on site may change over time. True fill depths should be obtained from the contractor’s survey data.

5. COMPLIANCE

Ground Science South West Staff have undertaken Level 1 Inspection and Testing services of the construction of the controlled fill in the areas designated on Figure 1. Ground Science South West field staff have also observed that the prepared subgrade provided an adequate base for the subsequent placement of controlled fill.

Based on observations made by Ground Science South West staff and the results of density tests, we consider that the controlled fill placed has been constructed in accordance with the guidelines in AS3798 (2007).

It should be noted that the final fill layers may be subjected to adverse weather conditions resulting in either surface softening or drying and cracking over time; regardless of the compactive efforts and moisture conditioning applied during the works. The integrity of the top 200mm to 300mm of the fill will deteriorate with time and should be taken into account by the foundation engineer prior to the construction of dwellings or buildings. The levels nominated in this report are a guide to amounts of fill placed and do not necessarily reflect an accurate survey of the fill levels.

6. UNDERSTANDING LEVEL 1 INSPECTION & TESTING

The purpose of performing Level 1 Inspection and Testing is to ensure compliance of the fill with the specification. The engagement of a Geotechnical Inspection Testing Authority (GITA) allows the contractor to perform their role in the construction of the filling operation while the GITA monitors the quality control process of the fill placement. The visual observations of thorough processes and work practices by the contractor allows the GITA to approve the subsequent placement of fill without having to wait for the completion of testing and the extended time it takes to get a test result back. The GITA will however, carry out random spot checks of the filling operations throughout the day's production as confirmation that the placement procedures and the fill moisture content is appropriate. At the end of a day's production the GITA will sign off the completed works as satisfactory. Any failed tests will result in that particular area of operation requiring rectification in the following mornings activities. This may be as simple as extra rolling with compaction plant if moisture conditioning is suitable. Sometimes these areas may be retested if the GITA feels it is necessary.

While AS3798 (2007) is a guideline on the minimum requirements of filling on commercial and residential developments, some projects require a more detailed project specification to deal with site specific issues. While moisture conditioning of fill sources aids in the ease with which compaction is achieved, it is not necessarily a physical characteristic that determines if the placed fill is acceptable. In some situations, the moisture requirement is an extremely important function of the final constructed product. In these situations, a specific project specification should apply to the project as detailed by the designing geotechnical engineer. These are typical of clay liners for wetlands, dams, landfill liners and caps and an array of other engineering situations. Creating a consolidated platform of which is similar to equivalent surrounding natural conditions is the primary aim of level one processes, preventing the occurrence of differential ground movements to footing structures.

Level 1 Inspection & Testing requires full time inspection and testing of the fill placement undertaken on a site. Ground Science South West (project GITA), are notified daily (or at the completion of each day's work) by the project foreman where subsequent days of fill placement under Level 1 is to occur. On projects that rely upon the importation of a fill source, there can be delays in the receipt of sufficient materials to warrant fill placement works which may result in periods of time where a GITA representative is not required on site. It is the contractor's responsibility to notify the GITA when works proceed and their attendance on site is required again. A GITA relies upon the integrity of the contractor to advise when site attendance is required and makes all reasonable visual attempts to assess if the works are the same as the previous days attendance.

For & on behalf of
Ground Science South West Pty Ltd

AUTHOR:

Michael Knez
Geotechnical Engineer

REVIEWED:

Gee Singh, RPEng
Senior Geotechnical Engineer

7. LIMITATIONS

This type of investigation (as per our commission) is not designed or capable of locating all soil conditions, (which can vary even over short distances). The advice given in this report is based on the assumption that the test results are representative of the overall soil conditions. However, it should be noted that actual conditions in some parts of the Site might differ from those found. If further sampling reveals soil conditions significantly different from those shown in our findings, Ground Science South West must be consulted. Maintenance and upkeep of finished fill placement must be regularly monitored as exposure to extended weather periods/other elements may cause surface drying which may lead to cracking. Conversely, excessive exposure to moisture may cause heaving/softening in the soils.

It is recognised that the passage of time affects the information and assessment provided in this document. Ground Science South West's assessment is based on information that existed at the time of the preparation of this document. It is understood that the services provided allowed Ground Science South West to form no more than an opinion of the actual site conditions observed during sampling and observations of the site visit and cannot be used to assess the effects of any subsequent changes in the quality of the site, or its surroundings, or any laws or regulations.

The scope and the period of Ground Science South West services are described in the proposal and are subject to restrictions and limitations. Ground Science South West did not perform a complete assessment of all possible conditions or circumstances that may exist at the Site. If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by Ground Science South West in regards to it.

Where data has been supplied by the client or a third party, it is assumed that the information is correct unless otherwise stated. No responsibility is accepted by Ground Science South West for incomplete or inaccurate data supplied by others.

Any drawings or figures presented in this report should be considered only as pictorial evidence of our work. Therefore, unless otherwise stated, any dimensions should not be used for accurate calculations or dimensioning.

8. REFERENCES

- AS3798 (2007) Guidelines on Earthworks for Residential and Commercial Developments.
- AS1289 Methods of Testing Soils for Engineering Purposes.
- AS1726 (2017) Geotechnical Site Investigations.

FIGURE 1

Aspire Estate Stage 35B – Layout Plan [No. 8226-35B-E-R&D Rev A]

NORTH

EXISTING STAGE 36B

EXISTING STAGE 35A

RESERVE

EXISTING STAGE 35A

REMEMBRANCE CIRCUIT

REMEMBRANCE CIRCUIT

REMOVE CONC EDGE STRIP AND 'NO ROAD' SIGN AND MATCH NEATLY WITH EXISTING.

REMOVE EXISTING HEADWALL AND CONNECT INTO EXISTING DRAINAGE PIPE.

T.B.M
Rivet in Pit Surround
R.L. 118.00 A.H.D
E 299052.76
N 5824306.52

EXISTING STAGE 35A

REMOVE CONC EDGE STRIP AND 'NO ROAD' SIGN AND MATCH NEATLY WITH EXISTING.

T.B.M
Star Picket
R.L. 117.025 A.H.D
E 299172.72
N 5824302.90

REMOVE EXISTING HEADWALL AND CONNECT INTO DRAINAGE

EXISTING OPTIC FIBRE

PROVIDE INDUSTRIAL VEHICLE CROSSING FOR MAINTENANCE ACCESS & LOCKABLE/ REMOVABLE BOLLARDS

SOLID RECYCLED PLASTIC OR COMPOSITE BOLLARDS MIN 1.0m @ 1.5<m SPACINGS TO BE INSTALLED BY LANDSCAPER

TYPICAL ISLAND CROSS SECTION (S13) AS PER CITY OF MELTON STANDARD DRAWING MCC 308

MAMIC BOULEVARD

GEC BOULEVARD

GEC BOULEVARD

EXISTING STAGE 36B

REMOVE CONC EDGE STRIP AND 'NO ROAD' SIGN AND MATCH NEATLY WITH EXISTING.

TYPICAL ISLAND CROSS SECTION (S13) AS PER CITY OF MELTON STANDARD DRAWING MCC 308

EXISTING TEMPORARY SUMP

CONNECT PROPOSED Ø1200 PIPE TO EXISTING DRAINAGE PIPE

EXISTING SEWER BRANCH LINE

TYPICAL ISLAND CROSS SECTION (S11) AS PER CITY OF MELTON STANDARD DRAWINGS

TYPICAL ISLAND CROSS SECTION (S1) AS PER CITY OF MELTON STANDARD DRAWINGS

GEC BLVD

SIRE STREET

CETONA STREET

T.B.M
Rivet in Pit Surround
R.L. 116.30 A.H.D
E 299118.33
N 5824217.58

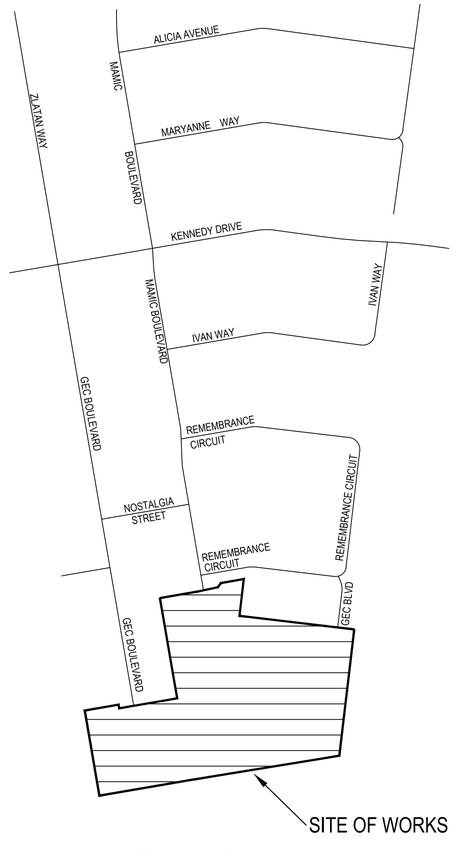
REMOVE CONC EDGE STRIP AND 'NO ROAD' SIGN AND MATCH NEATLY WITH EXISTING.

T.B.M
Rivet in Pit Surround
R.L. 117.705 A.H.D
E 298936.31
N 5824186.53

JOIN NEATLY INTO EXISTING ROAD. CUT BACK ANY DAMAGED PAVEMENT, KERB AND CHANNEL

PLAN
SCALE 1:500

SHEET INDEX		
SHT No.	VER	Description
1	P2	LAYOUT PLAN SHEET
2	P2	TYPICAL CROSS SECTIONS
3	P2	ROAD PAVEMENT DETAILS & NOTES
4	P2	GENERAL DETAILS
5	P2	INTERSECTION DETAIL PLAN
6	P2	LONGITUDINAL & CROSS SECTIONS MAMIC BOULEVARD
7	P2	LONGITUDINAL & CROSS SECTIONS GEC BOULEVARD - SHEET 1 OF 3
8	P2	CROSS SECTIONS GEC BOULEVARD - SHEET 2 OF 3
9	P2	CROSS SECTIONS GEC BOULEVARD SHEET 3 OF 3
10	P2	LONGITUDINAL & CROSS SECTIONS SIRE STREET
11	P2	LONGITUDINAL & CROSS SECTIONS CETONA STREET
12	P2	DRAINAGE LONGITUDINAL SECTIONS - SHEET 1
13	P2	DRAINAGE LONGITUDINAL SECTIONS - SHEET 2
14	P2	DRAINAGE LONGITUDINAL SECTIONS - SHEET 3
15	P2	DRAINAGE STRUCTURE DETAILS
16	P2	SIGNAGE & LINEMARKING PLAN
17	P2	PASSIVE IRRIGATION PLAN
18	P2	MOBILITY PLAN
19	P2	EARTHWORKS PLAN



SITE LOCALITY PLAN
NOT TO SCALE

PRELIMINARY LEVELS TO BE ADJUSTED DURING THE DETAILED DESIGN PHASE ONCE MW DRAINAGE SCHEME AND OVERLAND FLOWS HAVE BEEN APPROVED.

NOTE:
KERB CUTOUT FOR PASSIVE IRRIGATION. REFER TO DETAIL ON SHEET 17. FINAL STREET PIT LOCATION TO BE COORDINATED WITH LANDSCAPE DRAWINGS.

WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

ATTENTION TO CONTRACTOR

1. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN, PROVIDED FOR SETOUT PURPOSES, MATCHES THE TBM CO-ORDINATES SHOWN.
2. WHERE CONCRETE WORKS ABUT A SEWER ACCESS CHAMBER SURROUND OR SIMILAR STRUCTURE, AN EXPANSION JOINT OF APPROVAL MATERIAL SHALL BE PROVIDED BETWEEN THE TWO FACES.
3. CONTRACTOR TO ENSURE THAT THE SITE IS PEGGED AND OR SET OUT CHECKED BY THE LICENCED SURVEYOR RESPONSIBLE FOR CERTIFYING THE PLAN OF SUBDIVISION PRIOR TO UNDERGROUND INFRASTRUCTURE BEING INSTALLED.

SYMBOL LEGEND

	Prop	Prev Stage
Drains		
Main Drains		
Sewer < 300Ø	S	S
Sewer ≥ 300Ø		
Water (DW)	DW	W
Water (NDW)	NDW	W
House Drain	H	H
Property Inlet		
Street Sign		
PSM		
Rock Ret Wall		
Sleeper Ret Wall		
Conduits 50mm	GW	GW
Conduits 100mm	W100	W100
Street Tree without/with Passive Irrigation (Refer Detail)		
Ex Drains		
Ex Water DW/NDW	Ex DW	Ex NDW
Ex Sewer/Gas	Ex S	Ex G
Ex Elect/Comm	Ex E	Ex T
Ex Optic Fibre	Ex O	

Ex/Natural/FS Level	+28.57 +NS28.57 +FS28.57
FS @ Building Line	+BL28.57
Top/Toe of Batter	+TOP28.57 +TOE28.57
Top Ret. Wall Level	+TW28.57
100yr Flood Level	+FL28.57
Fill Proposed (<0.3m/≥0.3m)	
Cut Proposed	
Aspalt Surface Prop	
Concrete Surface Prop (Paths/Driveways/Slabs)	
Tree To Be Removed	X
Tree To Be Retained with Tree Protection Zone (TPZ)	DRIP LINE TPZ

SERVICE OFFSETS AND LOCATION TABLE

Location	Gas	Water		Telecommunications		Electricity		BOK	Road Width	Joint Trenching	Street Classification
		DW	DW	Cables	Pits	Cables	Poles				
MAMIC BOULEVARD	2.35 W		2.85 W	1.85 W	1.85 W	2.50 E	1.00 BOK	4.20 E 4.20 W	16.00	G&W, FTTH&E	ACCESS PLACE
GEC BOULEVARD (EAST) (LOTS 3547-LOTS 3550)	2.70 W		3.10 W	1.80 W	1.80 W	2.15 W	1.20 BOK	4.35 W 3.35 E	15.30	G&W, FTTH&E	ACCESS PLACE
GEC BOULEVARD (E/W)	2.10 N		2.60 N	2.00 S	1.80 S	2.50 S	1.00 BOK	4.20 N 4.20 S	16.00	G&W, FTTH&E	ACCESS PLACE
GEC BOULEVARD (WEST)	2.10 W		2.60 W	1.80 E	1.80 E	2.50 E	1.00 BOK	4.20 E 4.20 W	16.00	G&W, FTTH&E	ACCESS PLACE
CETONA STREET	2.70 W		3.10 W	1.80 W	1.80 W	2.15 W	1.20 BOK	4.35 W 3.35 E	15.30	G&W, FTTH&E	ACCESS PLACE
SIRE STREET	1.90 N		2.40 N	1.85 S	1.85 S	2.50 W	1.00 BOK	4.20 E 4.20 W	16.00	G&W, FTTH&E	ACCESS PLACE

NOTE: * OFFSET FROM BACK OF KERB

LENGTHS ARE IN METRES
10 5 0 10 20 40
SCALE 1 : 500 (A1)

AMENDMENTS			
VER	DATE	REMARKS	
A	20/12/2024	ISSUED FOR CONSTRUCTION	

breese pitt dixon pty. ltd.
land surveyors civil engineers
1/19 cato street
hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

MELWAY REF.	356-C-1
SURVEY	BPD
DESIGN	J.B
DRAWN	I.W
CHECKED	C.Hagen

ASPIRE ESTATE STAGE 35B LAYOUT PLAN

MUNICIPALITY	MELTON
REFERENCE	8226 E/35B
SCALE	AS SHOWN
DATUM	AHD
DATE	MAR 2023
SHEET	01 OF 19 A

APPENDIX A

Particle Size Distribution and Atterberg Limits Test Report Sheets

Material Test Report

Report Number: GSSW2548-1A
Issue Number: 1
Date Issued: 02/04/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)

Contact: James Law
Project Number: GSSW2548
Project Name: ASPIRE ESTATE STAGE 35B (LEVEL 1)
Project Location: FRASER RISE
Client Reference: 20298
Work Request: 22820
Sample Number: 2548-S1
Date Sampled: 14/03/2025
Dates Tested: 14/03/2025 - 01/04/2025
Sampling Method: AS 1289.1.2.1 6.2 - Sampling from stockpiles
Sample Location: **Onsite Stockpile**
Material: CI - CLAY, trace sand & gravel, red/brown, medium plasticity, sand 6%, gravel 6%,
Material Source: Site Won Fill

Ground Science South West
Geotechnical & Environmental Consultants

Ground Science South West Pty Ltd
8 Freedman Street North Geelong Vic 3215
Phone: (03) 5282 1566
Email: chrism@groundsciencesw.com.au

Accredited for compliance with ISO/IEC 17025 - Testing

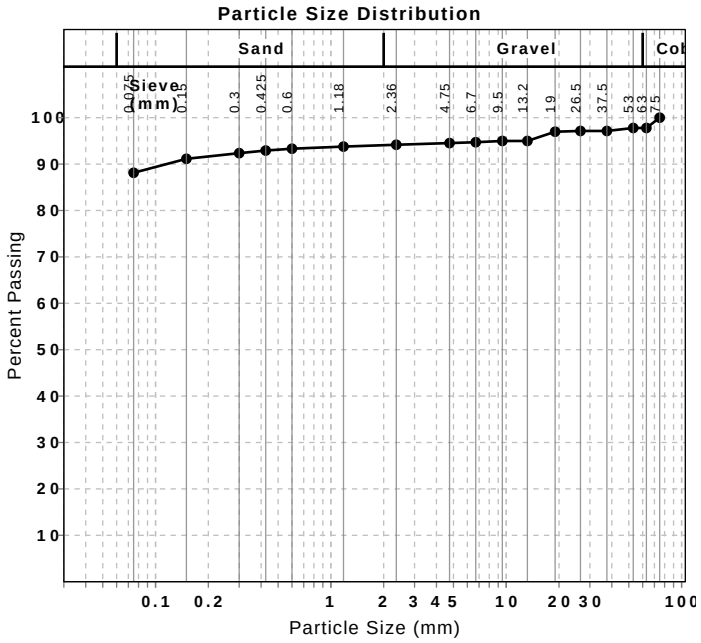
NATA
WORLD RECOGNISED ACCREDITATION

Approved Signatory: Brent Elliott
Laboratory Manager
NATA Accredited Laboratory Number: 20109

Particle Size Distribution (AS1289 3.6.1)						
Sieve	Passed %	Passing Limits		Retained %	Retained Limits	
75 mm	**100**			0		
63 mm	**98**			2		
53 mm	**98**			0		
37.5 mm	**97**			1		
26.5 mm	**97**			0		
19 mm	**97**			0		
13.2 mm	**95**			2		
9.5 mm	**95**			0		
6.7 mm	**95**			0		
4.75 mm	**95**			0		
2.36 mm	**94**			0		
1.18 mm	**94**			0		
0.6 mm	**93**			0		
0.425 mm	**93**			0		
0.3 mm	**92**			1		
0.15 mm	**91**			1		
0.075 mm	**88**			3		

Atterberg Limit (AS1289 3.1.2 & 3.2.1 & 3.3.1)		Min	Max
Sample History	Oven Dried		
Preparation Method	Dry Sieve		
Liquid Limit (%)	47		
Plastic Limit (%)	24		
Plasticity Index (%)	**23**		

Linear Shrinkage (AS1289 3.4.1)		Min	Max
Moisture Condition Determined By	AS 1289.3.1.1		
Linear Shrinkage (%)	**8.0**		
Cracking Crumbling Curling	Cracking & Curling		



Material Test Report

Report Number: GSSW2548-3A
Issue Number: 1
Date Issued: 02/04/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)

Contact: James Law
Project Number: GSSW2548
Project Name: ASPIRE ESTATE STAGE 35B (LEVEL 1)
Project Location: FRASER RISE
Client Reference: 20298
Work Request: 22865
Sample Number: 2548-S8
Date Sampled: 18/03/2025
Dates Tested: 18/03/2025 - 01/04/2025
Sampling Method: AS 1289.1.2.1 6.2 - Sampling from stockpiles
Sample Location: **Onsite Stockpile**
Material: CH - CLAY, with gravel, trace sand, red/brown, high plasticity, gravel 16% fine to coarse, sand 12% fine to coarse grained.
Material Source: Site Won Fill

Ground Science South West
Geotechnical & Environmental Consultants

Ground Science South West Pty Ltd
8 Freedman Street North Geelong Vic 3215
Phone: (03) 5282 1566
Email: chrism@groundsciencesw.com.au

Accredited for compliance with ISO/IEC 17025 - Testing

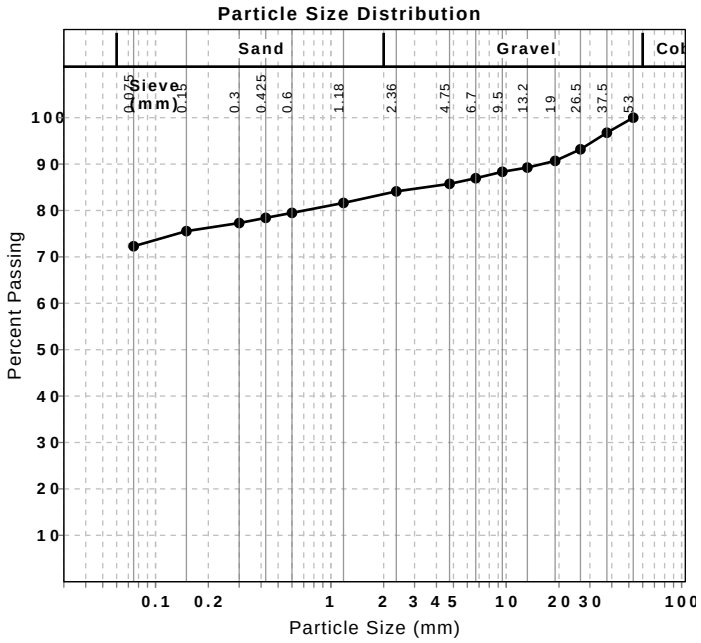
NATA
WORLD RECOGNISED ACCREDITATION

Approved Signatory: Brent Elliott
Laboratory Manager
NATA Accredited Laboratory Number: 20109

Particle Size Distribution (AS1289 3.6.1)						
Sieve	Passed %	Passing Limits		Retained %	Retained Limits	
53 mm	**100**			0		
37.5 mm	**97**			3		
26.5 mm	**93**			4		
19 mm	**91**			2		
13.2 mm	**89**			1		
9.5 mm	**88**			1		
6.7 mm	**87**			1		
4.75 mm	**86**			1		
2.36 mm	**84**			2		
1.18 mm	**82**			2		
0.6 mm	**79**			2		
0.425 mm	**78**			1		
0.3 mm	**77**			1		
0.15 mm	**76**			2		
0.075 mm	**72**			3		

Atterberg Limit (AS1289 3.1.2 & 3.2.1 & 3.3.1)		Min	Max
Sample History	Oven Dried		
Preparation Method	Dry Sieve		
Liquid Limit (%)	72		
Plastic Limit (%)	24		
Plasticity Index (%)	**48**		

Linear Shrinkage (AS1289 3.4.1)		Min	Max
Moisture Condition Determined By	AS 1289.3.1.2		
Linear Shrinkage (%)	**15.5**		
Cracking Crumbling Curling	Cracking & Curling		



APPENDIX B

Field Density Report Summary Sheet

Project Summary Report

Report Date: 27/03/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)

Contact: James Law
Project Number: GSSW2548
Project Name: ASPIRE ESTATE STAGE 35B (LEVEL 1)
Project Location: FRASER RISE
Specification: 95% Standard Compaction & +/- 2% Moisture Variation
Test Methods: AS 1289 5.7.1 STD & 5.8.1 & 2.1.1 & 5.4.1

Ground Science South West
Geotechnical & Environmental Consultants

Ground Science South West Pty Ltd
8 Freedman Street North Geelong Vic 3215
Phone: (03) 5282 1566
Email: chrism@groundsciencesw.com.au

Lot #	Sample #	Date Sampled	Location	Easting	Northing	Elevation (m)	Layer	Relative Compaction (%)	Moisture Variation (%)	Moisture Content (%)	Field Wet Density (t/m3)
**	2548-S2	14/03/2025	Refer to attached plan Lot 3553	55H 299034	5824247	**	Layer 1	106.5	2.0	28.2	1.98
**	2548-S3	14/03/2025	Refer to attached plan Lot 3552	55H 299085	5824249	**	Layer 1	104.0	0.0	31.3	1.94
**	2548-S4	14/03/2025	Refer to attached plan Lot 3549	55H 299107	5824253	**	Layer 1	103.5	-1.5	29.3	1.95
**	2548-S5	15/03/2025	Refer to attached plan Lot 3554	299102,	5824273 (Zone 55H), 121 m	**	Layer 1	105.0	0.5	30.4	1.95
**	2548-S6	15/03/2025	Refer to attached plan Lot 3548	299027.832E	5824320.203N 55H	**	Layer 1	104.5	2.0	30.2	1.95
**	2548-S7	15/03/2025	Refer to attached plan Lot 3551	299091	, 5824252 (Zone 55H), 117 m	**	Layer 2	105.5	0.0	32.9	1.92
**	2548-S9	18/03/2025	Refer to attached plan Lot 3550	55H 299116	5824249	**	Layer 3	104.0	2.0	24.9	1.95
**	2548-S10	18/03/2025	Refer to attached plan Lot 3547	55H 299081	5824294	**	Layer 2	101.0	0.5	28.7	1.97
**	2548-S11	18/03/2025	Refer to attached plan Lot 3556	55H 299075	5824278	**	Layer 2	103.5	0.5	30.4	1.98
**	2548-S12	24/03/2025	Refer to attached plan Lot 3535	299006,	5824175 (Zone 55H), 120 m	**	Layer 1	99.5	-0.5	31.7	1.84
**	2548-S13	24/03/2025	Refer to attached plan Lot 3542	299051,	5824187 (Zone 55H), 119 m	**	Layer 1	97.0	-1.0	34.3	1.82
**	2548-S14	24/03/2025	Refer to attached plan Lot 3539	299035,	5824187 (Zone 55H), 122 m	**	Layer 1	99.0	-0.5	31.2	1.81
**	2548-S15	25/03/2025	Refer to attached plan Lot 3520	55H 299019	5824288	**	Layer 1	102.5	0.5	27.8	1.94
**	2548-S16	25/03/2025	Refer to attached plan Lot 3529	55H 298988	5824220	**	Layer 1	97.5	-1.0	23.3	1.94
**	2548-S17	25/03/2025	Refer to attached plan Lot 3532	55H 298939	5824204	**	Layer 1	102.5	0.0	26.6	1.95
**	2548-S18	25/03/2025	Refer to attached plan Lot 3534	55H 298962	5824170	**	Layer 2	101.0	-0.5	30.1	1.91
**	2548-S19	25/03/2025	Refer to attached plan Lot 3544	55H 299069	5824189	**	Layer 2	100.5	-0.5	32.0	1.90

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Sample Locations Plan

x - approximate test location

Ground Science South West
Geotechnical & Environmental Consultants

APPENDIX C

Field Density Test Report Sheets & Test Locations

Material Test Report

Report Number: GSSW2548-1
Issue Number: 1
Date Issued: 18/03/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)

Contact: James Law
Project Number: GSSW2548
Project Name: ASPIRE ESTATE STAGE 35B (LEVEL 1)
Project Location: FRASER RISE
Work Request: 22820
Date Sampled: 14/03/2025
Dates Tested: 14/03/2025 - 17/03/2025
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 2% Moisture Variation
Material: sandy CLAY, trace gravel, high plasticity
Material Source: Site Won Fill

Ground Science South West
Geotechnical & Environmental Consultants

Ground Science South West Pty Ltd
8 Freedman Street North Geelong Vic 3215
Phone: (03) 5282 1566
Email: chrism@groundsciencesw.com.au

Accredited for compliance with ISO/IEC 17025 - Testing

NATA
WORLD RECOGNISED ACCREDITATION

Approved Signatory: Brent Elliott
Laboratory Manager
NATA Accredited Laboratory Number: 20109

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	2548-S2	2548-S3	2548-S4
Date Tested	14/03/2025	14/03/2025	14/03/2025
Time Tested	13:45	13:54	14:02
Test Request #/Location	Refer to attached plan Lot 3553	Refer to attached plan Lot 3552	Refer to attached plan Lot 3549
Easting	55H 299034	55H 299085	55H 299107
Northing	5824247	5824249	5824253
Layer / Reduced Level	Layer 1	Layer 1	Layer 1
Thickness of Layer (mm)	200	200	200
Soil Description	sandy CLAY, trace gravel, high plasticity	sandy CLAY, trace gravel, high plasticity	sandy CLAY, trace gravel, high plasticity
Test Depth (mm)	175	175	175
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	6	6
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	6	6
Field Wet Density (FWD) t/m^3	1.98	1.94	1.95
Field Moisture Content %	28.2	31.3	29.3
Field Dry Density (FDD) t/m^3	1.54	1.50	1.53
Peak Converted Wet Density t/m^3	1.86	**	**
Adjusted Peak Converted Wet Density t/m^3	**	1.87	1.88
Adj. Optimum Moisture Content % (AS1289.5.4.1)	30.3	29.2	25.8
Adj. Field Moisture Content % (AS1289.5.4.1)	28.2	29.3	27.4
Moisture Ratio % (AS1289.5.4.1)	93.0	**	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	100.0	106.5
Moisture Variation (Wv) %	2.0	**	**
Adjusted Moisture Variation %	**	0.0	-1.5
Hilf Density Ratio (%)	**106.5**	**104.0**	**103.5**
Compaction Method	**Standard**	**Standard**	**Standard**
Remarks	**	**	**

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC

Sample Locations Plan

x - approximate test location

Ground Science South West
Geotechnical & Environmental Consultants

Material Test Report

Report Number: **GSSW2548-2**
Issue Number: 1
Date Issued: 18/03/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)

Contact: James Law
Project Number: GSSW2548
Project Name: ASPIRE ESTATE STAGE 35B (LEVEL 1)
Project Location: FRASER RISE
Work Request: 22839
Date Sampled: 15/03/2025
Dates Tested: 15/03/2025 - 17/03/2025
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 2% Moisture Variation
Material: sandy CLAY, trace gravel, high plasticity
Material Source: Site Won Fill

Ground Science South West
Geotechnical & Environmental Consultants

Ground Science South West Pty Ltd
8 Freedman Street North Geelong Vic 3215
Phone: (03) 5282 1566
Email: chrism@groundsciencesw.com.au

Accredited for compliance with ISO/IEC 17025 - Testing

NATA
WORLD RECOGNISED ACCREDITATION

Approved Signatory: Brent Elliott
Laboratory Manager
NATA Accredited Laboratory Number: 20109

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	2548-S5	2548-S6	2548-S7
Date Tested	15/03/2025	15/03/2025	15/03/2025
Time Tested	10:00	10:10	12:04
Test Request #/Location	Refer to attached plan Lot 3554	Refer to attached plan Lot 3548	Refer to attached plan Lot 3551
Easting	299102,	299027.832E	299091
Northing	5824273 (Zone 55H), 121 m	5824320.203N 55H	, 5824252 (Zone 55H), 117 m
Layer / Reduced Level	Layer 1	Layer 1	Layer 2
Thickness of Layer (mm)	200	200	200
Soil Description	sandy CLAY, trace gravel, high plasticity	sandy CLAY, trace gravel, high plasticity	sandy CLAY, trace gravel, high plasticity
Test Depth (mm)	175	175	175
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	3	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	3	0
Field Wet Density (FWD) t/m^3	1.95	1.95	1.92
Field Moisture Content %	30.4	30.2	32.9
Field Dry Density (FDD) t/m^3	1.49	1.51	1.45
Peak Converted Wet Density t/m^3	1.85	**	1.83
Adjusted Peak Converted Wet Density t/m^3	**	1.87	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	30.7	31.7	33.2
Adj. Field Moisture Content % (AS1289.5.4.1)	30.4	29.3	32.9
Moisture Ratio % (AS1289.5.4.1)	99.0	**	99.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	92.5	**
Moisture Variation (Wv) %	0.5	**	0.0
Adjusted Moisture Variation %	**	2.0	**
Hilf Density Ratio (%)	**105.0**	**104.5**	**105.5**
Compaction Method	**Standard**	**Standard**	**Standard**
Remarks	**	**	**

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC

Sample Locations Plan

x - approximate test location

Ground Science South West
Geotechnical & Environmental Consultants

Material Test Report

Report Number: **GSSW2548-3**
Issue Number: 1
Date Issued: 20/03/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)

Contact: James Law
Project Number: GSSW2548
Project Name: ASPIRE ESTATE STAGE 35B (LEVEL 1)
Project Location: FRASER RISE
Work Request: 22865
Date Sampled: 18/03/2025
Dates Tested: 18/03/2025 - 19/03/2025
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 2% Moisture Variation
Material: gravelly CLAY, with sand, medium to high plasticity, gravel fine to coarse.
Material Source: Site Won Fill

Ground Science South West
Geotechnical & Environmental Consultants

Ground Science South West Pty Ltd
8 Freedman Street North Geelong Vic 3215
Phone: (03) 5282 1566
Email: chrism@groundsciencesw.com.au

Accredited for compliance with ISO/IEC 17025 - Testing

NATA
WORLD RECOGNISED ACCREDITATION

Approved Signatory: Brent Elliott
Laboratory Manager
NATA Accredited Laboratory Number: 20109

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	2548-S9	2548-S10	2548-S11
Date Tested	18/03/2025	18/03/2025	18/03/2025
Time Tested	13:53	14:01	14:08
Test Request #/Location	Refer to attached plan Lot 3550	Refer to attached plan Lot 3547	Refer to attached plan Lot 3556
Easting	55H 299116	55H 299081	55H 299075
Northing	5824249	5824294	5824278
Layer / Reduced Level	Layer 3	Layer 2	Layer 2
Thickness of Layer (mm)	250	250	250
Soil Description	sandy CLAY, trace gravel, high plasticity	gravelly CLAY, with sand, M-H Plasticity	gravelly CLAY, with sand, M-H Plasticity
Test Depth (mm)	225	225	225
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	11	6
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	11	6
Field Wet Density (FWD) t/m^3	1.95	1.97	1.98
Field Moisture Content %	24.9	28.7	30.4
Field Dry Density (FDD) t/m^3	1.56	1.57	1.54
Peak Converted Wet Density t/m^3	1.87	**	**
Adjusted Peak Converted Wet Density t/m^3	**	1.95	1.91
Adj. Optimum Moisture Content % (AS1289.5.4.1)	26.9	26.1	29.4
Adj. Field Moisture Content % (AS1289.5.4.1)	24.9	25.6	28.7
Moisture Ratio % (AS1289.5.4.1)	92.5	**	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	98.0	97.5
Moisture Variation (Wv) %	2.0	**	**
Adjusted Moisture Variation %	**	0.5	0.5
Hilf Density Ratio (%)	**104.0**	**101.0**	**103.5**
Compaction Method	**Standard**	**Standard**	**Standard**
Remarks	**	**	**

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC

Sample Locations Plan

x - approximate test location

Ground Science South West
Geotechnical & Environmental Consultants

Material Test Report

Report Number: GSSW2548-4
Issue Number: 1
Date Issued: 26/03/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)

Contact: James Law
Project Number: GSSW2548
Project Name: ASPIRE ESTATE STAGE 35B (LEVEL 1)
Project Location: FRASER RISE
Work Request: 22941
Date Sampled: 24/03/2025
Dates Tested: 24/03/2025 - 25/03/2025
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 2% Moisture Variation
Material: sandy CLAY, trace gravel, high plasticity
Material Source: Site Won Fill

Ground Science South West
Geotechnical & Environmental Consultants

Ground Science South West Pty Ltd
8 Freedman Street North Geelong Vic 3215
Phone: (03) 5282 1566
Email: chrism@groundsciencesw.com.au

Accredited for compliance with ISO/IEC 17025 - Testing

NATA
WORLD RECOGNISED ACCREDITATION

Approved Signatory: Brent Elliott
Laboratory Manager
NATA Accredited Laboratory Number: 20109

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	2548-S12	2548-S13	2548-S14
Date Tested	24/03/2025	24/03/2025	24/03/2025
Time Tested	14:30	14:44	15:04
Test Request #/Location	Refer to attached plan Lot 3535	Refer to attached plan Lot 3542	Refer to attached plan Lot 3539
Easting	299006,	299051,	299035,
Northing	5824175 (Zone 55H), 120 m	5824187 (Zone 55H), 119 m	5824187 (Zone 55H), 122 m
Layer / Reduced Level	Layer 1	Layer 1	Layer 1
Thickness of Layer (mm)	200	200	200
Soil Description	CLAY, with sand, trace gravel, high plasticity	CLAY, with sand, trace gravel, high plasticity	CLAY, with sand, trace gravel, high plasticity
Test Depth (mm)	175	175	175
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	5	2
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	5	2
Field Wet Density (FWD) t/m^3	1.84	1.82	1.81
Field Moisture Content %	31.7	34.3	31.2
Field Dry Density (FDD) t/m^3	1.40	1.37	1.39
Peak Converted Wet Density t/m^3	1.85	**	**
Adjusted Peak Converted Wet Density t/m^3	**	1.87	1.83
Adj. Optimum Moisture Content % (AS1289.5.4.1)	31.3	31.4	30.2
Adj. Field Moisture Content % (AS1289.5.4.1)	31.7	32.5	30.6
Moisture Ratio % (AS1289.5.4.1)	101.5	**	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	103.0	101.5
Moisture Variation (Wv) %	-0.5	**	**
Adjusted Moisture Variation %	**	-1.0	-0.5
Hilf Density Ratio (%)	**99.5**	**97.0**	**99.0**
Compaction Method	**Standard**	**Standard**	**Standard**
Remarks	**	**	**

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC

Sample Locations Plan

x - approximate test location

Ground Science South West
Geotechnical & Environmental Consultants

Material Test Report

Report Number: GSSW2548-5
Issue Number: 1
Date Issued: 27/03/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)

Contact: James Law
Project Number: GSSW2548
Project Name: ASPIRE ESTATE STAGE 35B (LEVEL 1)
Project Location: FRASER RISE
Work Request: 22962
Date Sampled: 25/03/2025
Dates Tested: 25/03/2025 - 26/03/2025
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 2% Moisture Variation
Material: sandy CLAY, trace gravel, high plasticity
Material Source: Site Won Fill

Ground Science South West
Geotechnical & Environmental Consultants

Ground Science South West Pty Ltd
8 Freedman Street North Geelong Vic 3215
Phone: (03) 5282 1566
Email: chrism@groundsciencesw.com.au

Accredited for compliance with ISO/IEC 17025 - Testing

NATA
WORLD RECOGNISED ACCREDITATION

Approved Signatory: Brent Elliott
Laboratory Manager
NATA Accredited Laboratory Number: 20109

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1					
Sample Number	2548-S15	2548-S16	2548-S17	2548-S18	2548-S19
Date Tested	25/03/2025	25/03/2025	25/03/2025	25/03/2025	25/03/2025
Time Tested	10:25	10:37	10:46	14:10	14:18
Test Request #/Location	Refer to attached plan Lot 3520	Refer to attached plan Lot 3529	Refer to attached plan Lot 3532	Refer to attached plan Lot 3534	Refer to attached plan Lot 3544
Easting	55H 299019	55H 298988	55H 298939	55H 298962	55H 299069
Northing	5824288	5824220	5824204	5824170	5824189
Layer / Reduced Level	Layer 1	Layer 1	Layer 1	Layer 2	Layer 2
Thickness of Layer (mm)	200	200	200	200	200
Soil Description	sandy CLAY, trace gravel, high plasticity	sandy CLAY, trace gravel, high plasticity	sandy CLAY, trace gravel, high plasticity	sandy CLAY, trace gravel, high plasticity	sandy CLAY, trace gravel, high plasticity
Test Depth (mm)	175	175	175	175	175
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	0	0	0	0
Field Wet Density (FWD) t/m^3	1.94	1.94	1.95	1.91	1.90
Field Moisture Content %	27.8	23.3	26.6	30.1	32.0
Field Dry Density (FDD) t/m^3	1.52	1.58	1.54	1.47	1.44
Peak Converted Wet Density t/m^3	1.89	1.99	1.90	1.89	1.89
Adjusted Peak Converted Wet Density t/m^3	**	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	28.3	22.3	26.8	29.5	31.5
Adj. Field Moisture Content % (AS1289.5.4.1)	27.8	23.3	26.6	30.1	32.0
Moisture Ratio % (AS1289.5.4.1)	98.0	104.0	99.0	102.0	101.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**	**
Moisture Variation (Wv) %	0.5	-1.0	0.0	-0.5	-0.5
Adjusted Moisture Variation %	**	**	**	**	**
Hilf Density Ratio (%)	**102.5**	**97.5**	**102.5**	**101.0**	**100.5**
Compaction Method	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**
Remarks	**	**	**	**	**

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC

Sample Locations Plan

x - approximate test location

Ground Science South West
Geotechnical & Environmental Consultants

APPENDIX D

Site Photographs


CAT
WINSLOW

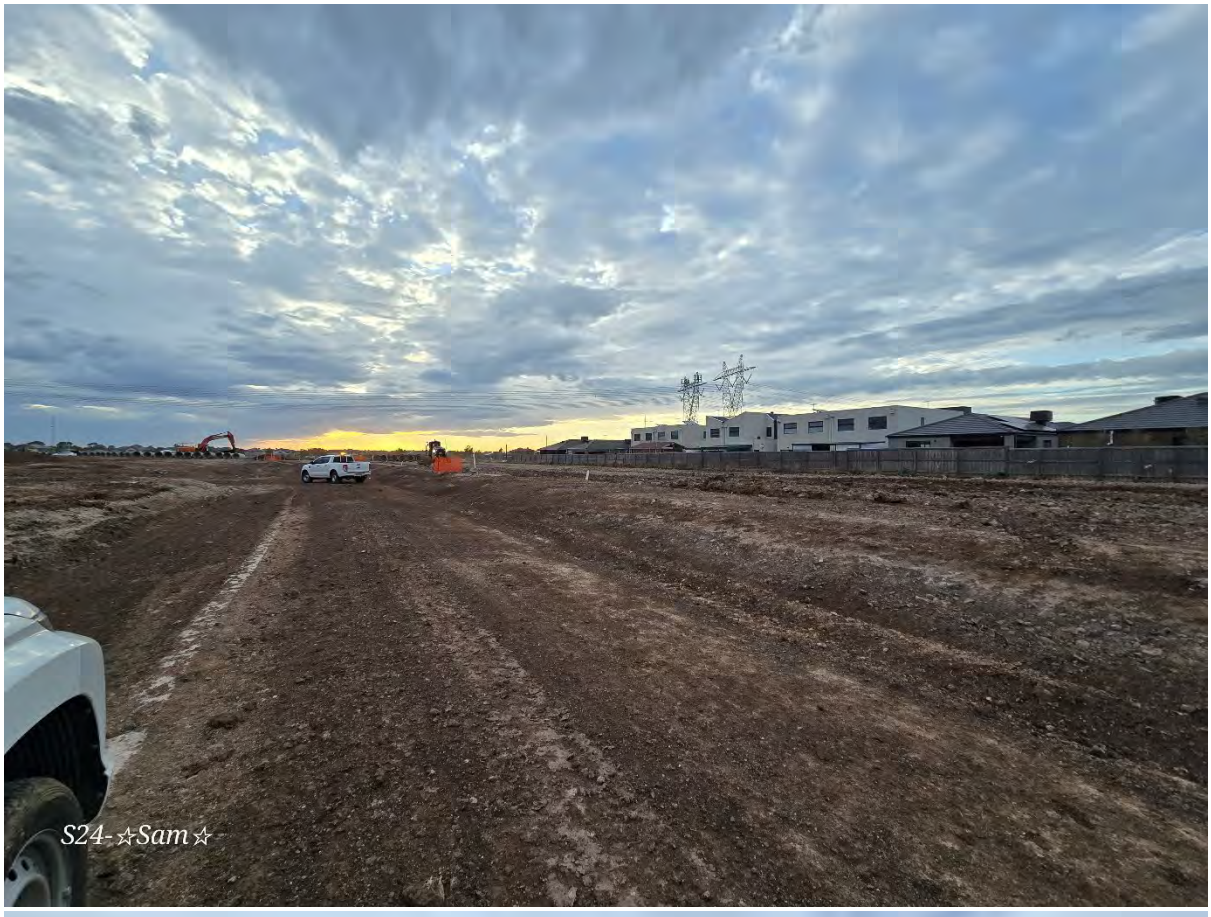

CAT
WINSLOW
jocon


S24-☆Sam☆


S24-☆Sam☆


TROXLER
RADIOACTIVE
IN CASE OF ACCIDENT
CONTACT LOCAL
POLICE
7
1XQ 8RH
S24-☆Sam☆


CAT
WINSLOW


S24-☆Sam☆


S24-☆Sam☆


WINSLOW
621K


CAT


CAT