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LEVEL 1 INSPECTION & TESTING REPORT

ALAMORA ESTATE, STAGE 15, TARNEIT

Prepared for Winslow Constructors Pty Ltd

Report Reference: GS7765.1 AA

Date: 17 September 2024

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PROJECT DETAILS

Project Reference	GS7765.1	Rev	AA
Project Title	Alamora Estate, Stage 15		
Project Location	Tarneit	State	VIC
Date	17 September 2024		

CLIENT DETAILS

Prepared For (Client)	Winslow Constructors
Client Address	Corner of Beattys Road & Leakes Road, Aintree, VIC 3366

DISTRIBUTION

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

This document presents the results of Level 1 Inspection and Testing performed by Ground Science 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.

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Ground Science Pty Ltd

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1. INTRODUCTION

This report presents the results of the Level 1 inspection activities, compaction control services and laboratory testing services performed by Ground Science for the Alamora Estate, Stage 15 project, located in Tarneit, Victoria (the site).

2. PROJECT BACKGROUND

Ground Science was engaged to provide Level 1 Inspection and testing services for the Stage 15 bulk earthworks component of the project. Authorisation to proceed was provided by Winslow Constructors (the 'Client'), who were the nominated project earthworks contractors.

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 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 WORKS

3.1 AREAS & DURATION OF WORKS

This report details the Level 1 earthworks process which commenced on 26 August 2024 to 10 September 2024 requiring 8 full days on-site inspection and testing services. The filling works generally took place on proposed allotments within Stage 15.

3.2 PLACEMENT METHODOLOGY

The placement of the controlled fill on the above-mentioned areas was carried out in general accordance with Level 1 Inspection & testing fill procedures as detailed in Section 8.2 of AS3798 (2007) 'Guidelines on Earthworks for Commercial and Residential Developments'.

The fill placement methodology for the works involved:

1. preparing the base by stripping all loose surficial fill, soft material, vegetation, and materials containing significant organic matter to expose the natural soil subgrade
2. sorting and mixing the fill materials to eliminate oversize particles greater than 20 % by volume, no particles coarser than 37.5 mm, and no particle over 200 mm in any dimension
3. placing approved fill material in loose horizontal layers not exceeding 250 mm in thickness
4. compacting the controlled fill materials to achieve a target dry density ratio of not less than 95 % Standard Compaction (AS 1289: 5.1.1. 5.4.1 or 5.7.1)
5. moisture-conditioning the fill to within 85 % - 115 % of the standard optimum moisture content (SOMC)
6. completing field density testing at a frequency for large scale developments (Type 1 AS3798) which nominates a frequency of the following:
 - one test per layer or 200 mm per 2500 m²
 - one test per 500 m³ distributed reasonably evenly throughout the full depth and area, or
 - three tests per site visit; whichever requires the most tests.

4. INSPECTION AND TESTING RESULTS

4.1 SUBGRADE PREPARATION

Subgrade preparation works were conducted progressively during the earthworks phase. The fill placement zones generally required stripping of surficial topsoil, vegetation and organics, typically in the order of 150 mm (approx.). Scrapers and graders were used to complete the subgrade preparation works.

The stripped subgrade was visually assessed using tactile methods described in AS1726 (2017) by the onsite GITA. The materials were observed to generally comprise Silty CLAY (CH), red to brown red, with varying proportions of sand / gravel and are inferred to be residual Newer Volcanic Group deposits. The stripped subgrade was generally wet of, or close to the inferred optimum moisture content (OMC) during the majority of the project duration.

The subgrade was ripped using a grader, moisture conditioned and subsequently test rolled in the presence of the onsite GITA prior to placement of fill, with no deflections/springing/rutting observed. The subgrade was considered suitable for subsequent fill placement.

4.2 FILL SOURCE MATERIALS

The fill material used was nominated by the on-site contractor. Table 1 summarises the fill source sites and general material properties:

Table 1: Fill Source Sites & General Material Properties

Source Site	General Material Description
Onsite excavations (Implex Drive, Pedra Avenue & Stage 19)	Silty CLAY / CLAY (CH), brown / brown-red, with sand/gravel
Offsite (Max Bright)	Silty CLAY / CLAY (CH), brown to dark brown, with sand/gravel

4.3 INSPECTION OF FILL SOURCE MATERIALS

Ground Science performed an assessment of the fill source materials for the following:

- identifying fill material suitability (engineering properties) including cohesion and composition
- spotting any building debris and vegetative matter (cleanliness) of the fill
- distinguishing oversize rock particles
- examining the fill moisture.

4.3.1 MATERIAL SUITABILITY

The fill materials were noted to be compliant with AS3798 Section 4.0 for the intent and purpose of general filling.

4.3.2 BUILDING DEBRIS & VEGETATIVE MATTER

Building debris and vegetative matter was not observed in the fill matrix.

4.3.3 OVERSIZE PARTICLES

Oversize particles were observed during placement of fill, requiring removal using the scraper during placement.

4.3.4 FILL MOISTURE

The fill source was assessed to be generally dry of the inferred OMC. A water cart was used to moisture condition the fill during placement. At later stages of the project, the water cart was used to moisture condition the fill material during stockpiling in addition to during placement.

4.3.5 CONTAMINATION TESTING

Ground Science did not perform any chemical or contamination analysis of the fill. The project contractor is responsible to ensure that the fill materials conform to the relevant EPA guidelines.

4.4 FILL CONSTRUCTION

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

1. water cart
2. dump trucks & trailers
3. 815 compactor (one to two machines)
4. Scraper (between one to three machines)
5. grader.

4.4.1 CLIMATE

During fill placement, the weather conditions were generally cool and overcast, with temperatures typically ranging between 10 to 22 degrees Celsius. Windy conditions were regularly observed.

4.4.2 FILLING PROCESS

The filling process was generally consistent throughout the project. The process typically involved the fill materials carted to the site by dump trucks and trailers and stockpiled adjacent to the fill placement zones.

The fill materials were spread using the scraper and grader into thin loose layers measuring between 150 mm to 250 mm thick. Each layer was compacted using the 815 compactor, applying a minimum of 6 to 12 passes per layer observed. A water cart was used to moisture condition the fill material during placement (and later within the stockpiles). Oversize particles were removed during spreading of the fill material using the onsite scraper.

The thin layers were compacted to form a composite layer measuring approximately 200 mm to 250 mm thick before field density testing was carried out.

It is considered that a 100 mm to 150 mm thick layer of topsoil would be spread at the completion of all works, which does not form part of the Level 1 process. Any fill placed as part of newly constructed drainage, sewer works, or similar does not form part of this Level 1 report.

4.5 COMPACTION CONTROL & MOISTURE TESTING RESULTS

Throughout the filling process and/or at the completion of the days production, compaction control testing was performed to assess the achieved density ratio of each layer. The onsite GITA nominated the location and performed each test.

Testing comprised a total of 37 density tests using a nuclear moisture-density gauge and 37 rapid HILF compaction tests (AS1289 5.8.1 and AS1289 5.7.1).

In general, all areas were found to achieve the minimum target density ratio of 95 % Standard Compaction. The moisture variation was generally within the recommended $\pm 3\%$ of OMC with exception to six test zones, which failed to achieve the recommended moisture ratio. These areas were subsequently ripped, moisture conditioned, re-rolled and re-tested, with compliant test results achieved.

A summary of the field density tests performed for the project is presented in **Appendix A**. Field density and compaction control testing report sheets are presented in **Appendix B**. It should be noted that the tests are a representation of the fill placed and support the visual assessment of the works completed.



4.6 FINAL SURFACE LEVELS

Observations were made by a Ground Science staff member that filling had been completed up to the nominated finished levels as per confirmation provided by the contractor's site foreman. The observed final levels are the constructed finished surface levels of the controlled fill.

It should be noted that 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 Staff have undertaken Level 1 Inspection and Testing services of the construction of the controlled fill in the areas shown in Appendix A. Ground Science 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 staff and the results of density tests, we consider that the controlled fill placed has been constructed in accordance with the guidelines provided by AS3798 (2007) and AS2870 (2011).

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 200 mm to 300 mm 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.

6. UNDERSTANDING LEVEL 1 INSPECTION & TESTING AND THE ROLE OF A GITA

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) is provided to document the activities completed by the civil contractor and 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 based on visual observations.

Any failed tests identified post the days production will result in that particular area of operation requiring rectification in the following 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 wet lands, 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 and 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 (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.

Note: A GITA is not a site supervisor and does not instruct the construction team. Advice may be sought from the GITA, to assist with achieving compaction.



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 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'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 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 services are described in the proposal and are subject to restrictions and limitations. Ground Science 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 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 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.

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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
- AS2870 (2011) 'Residential Slabs & Footings'.

APPENDIX A

Field Density Test Summary & Test Locations

Project Summary Report



Report Date: 12/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7765/1
Project Name: Alamora Estate Stage 15 (Level One)
Project Location: Tarneit
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Test Methods: AS 1289 5.7.1 STD & 5.8.1 & 2.1.1

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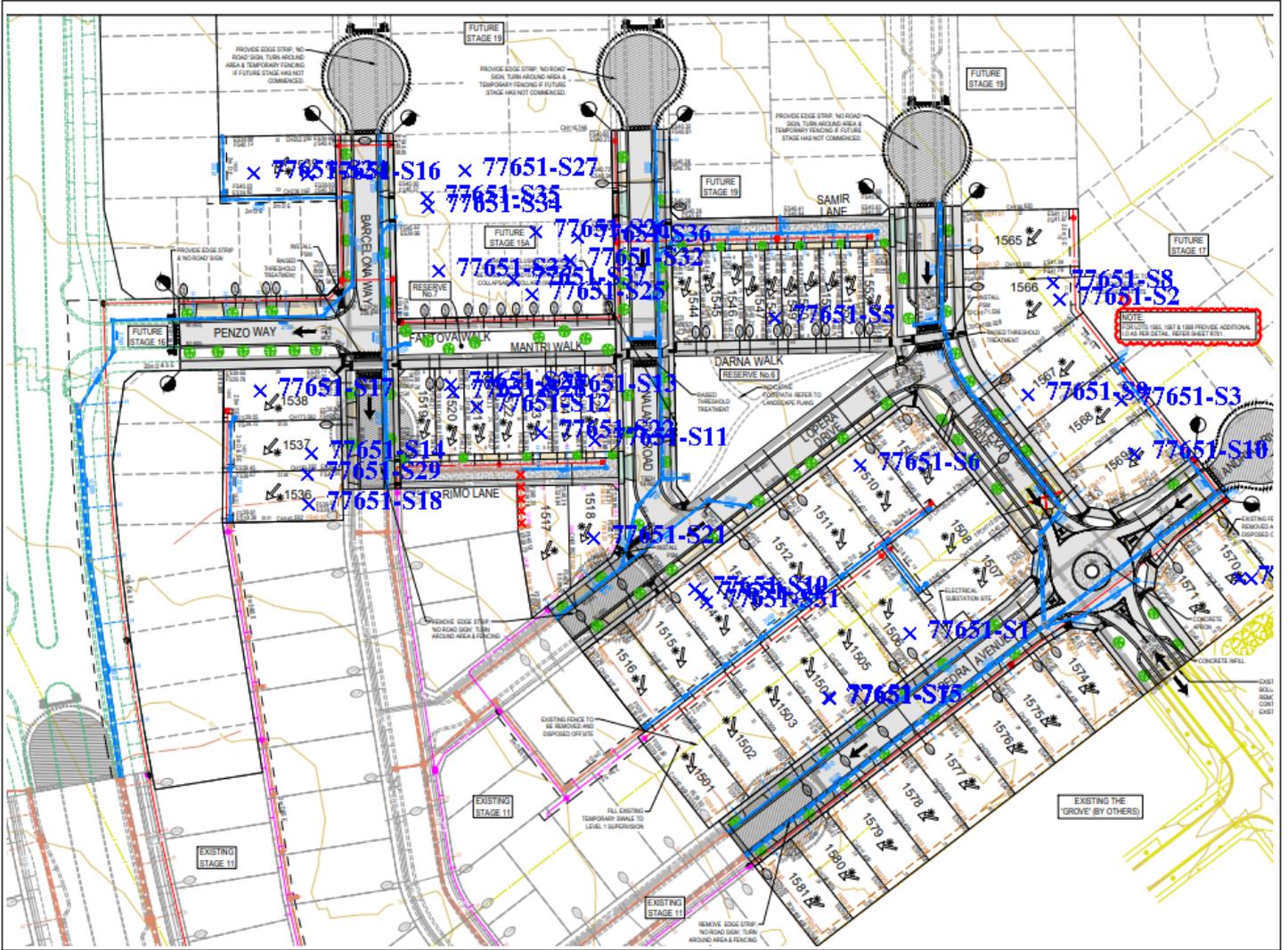
Lot #	Sample #	Date Sampled	Location	Easting	Northing	Elevation (m)	Layer	Relative Compaction (%)	Moisture Variation (%)	Moisture Content (%)	Field Wet Density (t/m3)
**	77651-S1	26/08/2024	Lot 1506	292300	5807659	**	1 - final layer	104.5	3.0	27.0	1.91
**	77651-S2	26/08/2024	Lot 1566	292270	5807754	**	1	95.0	2.5	28.5	1.75
**	77651-S3	26/08/2024	Lot 1568	292311	5807742	**	1	101.0	3.0	29.9	1.80
**	77651-S4	26/08/2024	Lot 1514	292261	5807625	**	1 - final layer	103.0	4.0	29.0	1.82
**	77651-S5	27/08/2024	Lot 1548	292213	5807693	**	1	99.0	3.0	23.7	1.85
**	77651-S6	27/08/2024	Lot 1510	292265	5807677	**	1 - final layer	100.0	3.0	25.6	1.86
**	77651-S7	27/08/2024	Lot 1504	292304	5807628	**	1 - final layer	99.5	4.5	23.9	1.76
**	77651-S8	28/08/2024	Lot 1566	292265	5807753	**	2 - final layer	99.5	0.5	32.8	1.82
**	77651-S9	28/08/2024	Lot 1567	292273	5807733	**	1 - final layer	100.0	-0.5	30.6	1.87
**	77651-S10	28/08/2024	Lot 1569	292308	5807736	**	2 - final layer	101.0	0.0	33.3	1.86
**	77651-S11	28/08/2024	Lot 1525	292204	5807640	**	1	102.5	3.0	33.0	1.83
**	77651-S12	29/08/2024	Lot 1546	292205	5807686	**	2 - final layer	99.5	1.0	32.5	1.80
**	77651-S13	29/08/2024	Lot 1550	292215	5807713	**	2 - final layer	101.5	2.5	28.6	1.82
**	77651-S14	29/08/2024	Lot 1537	292150	5807567	**	1	97.0	-0.5	22.9	1.95
**	77651-S15	29/08/2024	Retest S7	292296	5807631	**	1 - final layer	99.5	1.5	29.3	1.81
**	77651-S16	30/08/2024	Lot 1539	292100	5807621	**	1	104.0	3.0	20.3	1.92
**	77651-S17	30/08/2024	Lot 1538	292123	5807570	**	2 - final layer	102.0	3.0	18.8	1.93
**	77651-S18	30/08/2024	Lot 1536	292152	5807561	**	2 - final layer	101.0	3.5	23.9	1.88
**	77651-S19	30/08/2024	Retest S4	292258	5807620	**	1 - final layer	96.5	4.0	21.8	1.80
**	77651-S20	30/08/2024	Lot 1570	292355	5807727	**	1 - final layer	101.5	4.5	22.5	1.89
**	77651-S21	30/08/2024	Lot 1518	292223	5807612	**	2 - final layer	102.5	0.5	25.4	1.95
**	77651-S22	30/08/2024	Lot 1523	292192	5807623	**	2 - final layer	97.5	2.5	23.1	1.89
**	77651-S23	30/08/2024	Lot 1520	292161	5807625	**	2 - final layer	97.0	5.0	22.4	1.75
**	77651-S24	31/08/2024	Lot 1539	292084	5807615	**	2 - final layer	97.0	0.5	22.9	1.90
**	77651-S25	05/09/2024	Stage 15A	292162	5807652	**	1	99.0	0.5	31.1	1.81
**	77651-S26	05/09/2024	Stage 15A	292154	5807668	**	1	98.5	-0.5	30.8	1.82
**	77651-S27	05/09/2024	Stage 15A	292130	5807664	**	1	98.5	2.0	28.3	1.81
**	77651-S28	05/09/2024	Retest S23	292176	5807610	**	Layer 2 - final layer	96.0	2.0	25.9	1.79
**	77651-S29	05/09/2024	Retest S18	292160	5807558	**	Layer 2 - final layer	100.5	2.0	22.0	1.97
**	77651-S30	05/09/2024	Retest S20	292366	5807733	**	Layer 1 - final layer	100.5	0.0	26.7	1.97
**	77651-S31	06/09/2024	Retest S4 / S19	292269	5807614	**	1 - final layer	103.5	0.0	29.0	1.97
**	77651-S32	09/09/2024	Stage 15A	292171	5807664	**	2	96.5	-0.5	21.9	1.88
**	77651-S33	10/09/2024	Stage 15A	292145	5807632	**	2	100.5	0.0	30.3	1.88
**	77651-S34	10/09/2024	Stage 15A	292124	5807653	**	2	105.0	0.5	29.1	1.90
**	77651-S35	11/09/2024	Stage 15A	292140	5807646	**	3 - final layer	101.0	0.0	**	1.93
**	77651-S36	11/09/2024	Stage 15A	292170	5807666	**	3 - final layer	101.0	0.5	**	1.84
**	77651-S37	11/09/2024	Stage 15A	292168	5807648	**	3 - final layer	100.0	0.0	**	1.87

Moisture Variation Note:

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

Sample Locations Plan

x - approximate test location



APPENDIX B

Field Density Test Reports

Material Test Report



Report Number: GS7765/1-1
Issue Number: 1
Date Issued: 28/08/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7765/1
Project Name: Alamora Estate Stage 15 (Level One)
Project Location: Tarneit
Work Request: 19768
Date Sampled: 26/08/2024
Dates Tested: 26/08/2024 - 27/08/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, brown, grey
Material Source: Onsite

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Accredited for compliance with ISO/IEC 17025 - Testing



K. Collins

Approved Signatory: Kallam Collins
Laboratory 21C

NATA Accredited Laboratory Number: 15055

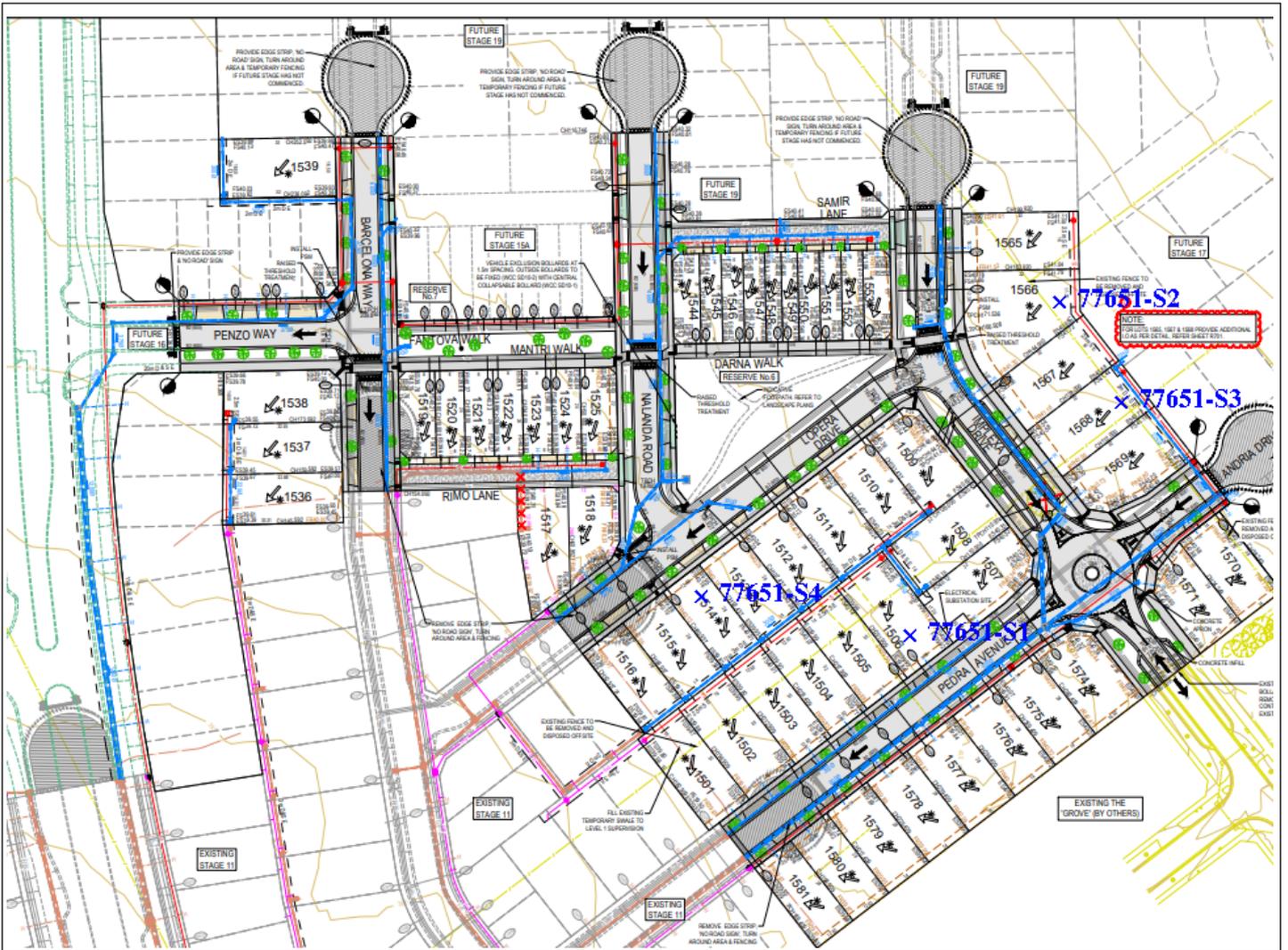
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	77651-S1	77651-S2	77651-S3	77651-S4
Date Tested	26/08/2024	26/08/2024	26/08/2024	26/08/2024
Time Tested	13:10	13:30	13:55	15:10
Test Request #/Location	Lot 1506	Lot 1566	Lot 1568	Lot 1514
Easting	292300	292270	292311	292261
Northing	5807659	5807754	5807742	5807625
Layer / Reduced Level	1 - final layer	1	1	1 - final layer
Thickness of Layer (mm)	200	250	250	300
Soil Description	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey
Test Depth (mm)	175	225	225	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	3	0	0
Field Wet Density (FWD) t/m ³	1.91	1.75	1.80	1.82
Field Moisture Content %	27.0	28.5	29.9	29.0
Field Dry Density (FDD) t/m ³	1.51	1.36	1.39	1.41
Peak Converted Wet Density t/m ³	1.83	**	1.78	1.77
Adjusted Peak Converted Wet Density t/m ³	**	1.84	**	**
Moisture Variation (Wv) %	3.0	**	3.0	4.0
Adjusted Moisture Variation %	**	2.5	**	**
Hilf Density Ratio (%)	104.5	95.0	101.0	103.0
Compaction Method	Standard	Standard	Standard	Standard
Report 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



Material Test Report



Report Number: GS7765/1-2
Issue Number: 1
Date Issued: 29/08/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7765/1
Project Name: Alamora Estate Stage 15 (Level One)
Project Location: Tarneit
Work Request: 19803
Date Sampled: 27/08/2024
Dates Tested: 27/08/2024 - 28/08/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Level one day 2 Tarneit
Material: Silty CLAY, medium to high plasticity, brown
Material Source: Onsite

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Accredited for compliance with ISO/IEC 17025 - Testing



J. Collins

Approved Signatory: Kallam Collins
Laboratory 2IC

NATA Accredited Laboratory Number: 15055

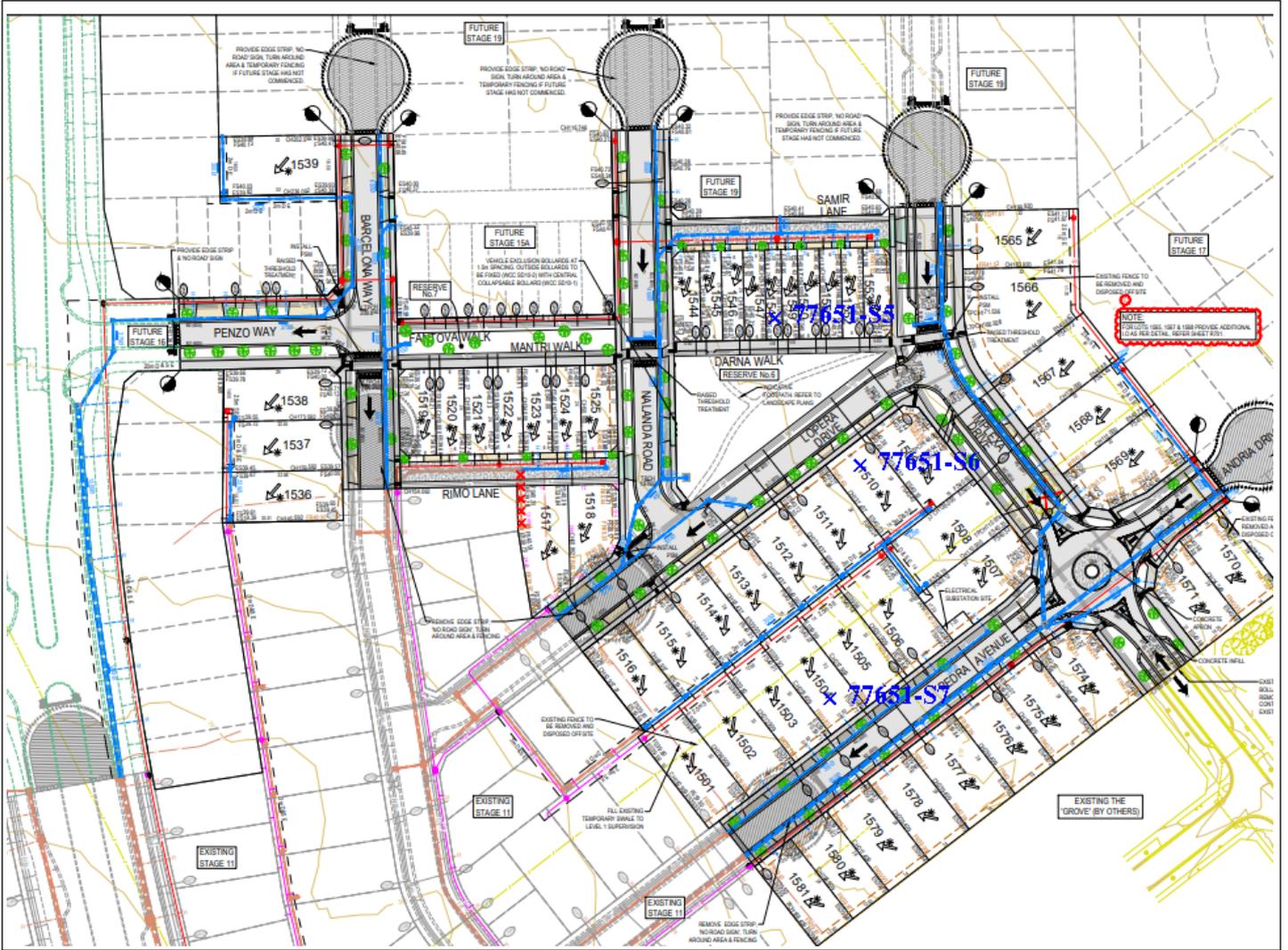
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	77651-S5	77651-S6	77651-S7
Date Tested	27/08/2024	27/08/2024	27/08/2024
Time Tested	13:10	13:30	13:50
Test Request #/Location	Lot 1548	Lot 1510	Lot 1504
Easting	292213	292265	292304
Northing	5807693	5807677	5807628
Layer / Reduced Level	1	1 - final layer	1 - final layer
Thickness of Layer (mm)	250	250	200
Soil Description	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey
Test Depth (mm)	225	225	175
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	1	0	0
Field Wet Density (FWD) t/m ³	1.85	1.86	1.76
Field Moisture Content %	23.7	25.6	23.9
Field Dry Density (FDD) t/m ³	1.50	1.48	1.42
Peak Converted Wet Density t/m ³	**	1.86	1.77
Adjusted Peak Converted Wet Density t/m ³	1.87	**	**
Moisture Variation (Wv) %	**	3.0	4.5
Adjusted Moisture Variation %	3.0	**	**
Hilf Density Ratio (%)	99.0	100.0	99.5
Compaction Method	Standard	Standard	Standard
Report 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



Material Test Report



Report Number: GS7765/1-3
Issue Number: 1
Date Issued: 30/08/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7765/1
Project Name: Alamora Estate Stage 15 (Level One)
Project Location: Tarneit
Work Request: 19824
Date Sampled: 28/08/2024 8:30
Dates Tested: 28/08/2024 - 29/08/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Level one day 3 Tarneit
Material: Silty CLAY, medium to high plasticity, brown, grey
Material Source: Onsite

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Approved Signatory: Kallam Collins
Laboratory 2IC

NATA Accredited Laboratory Number: 15055

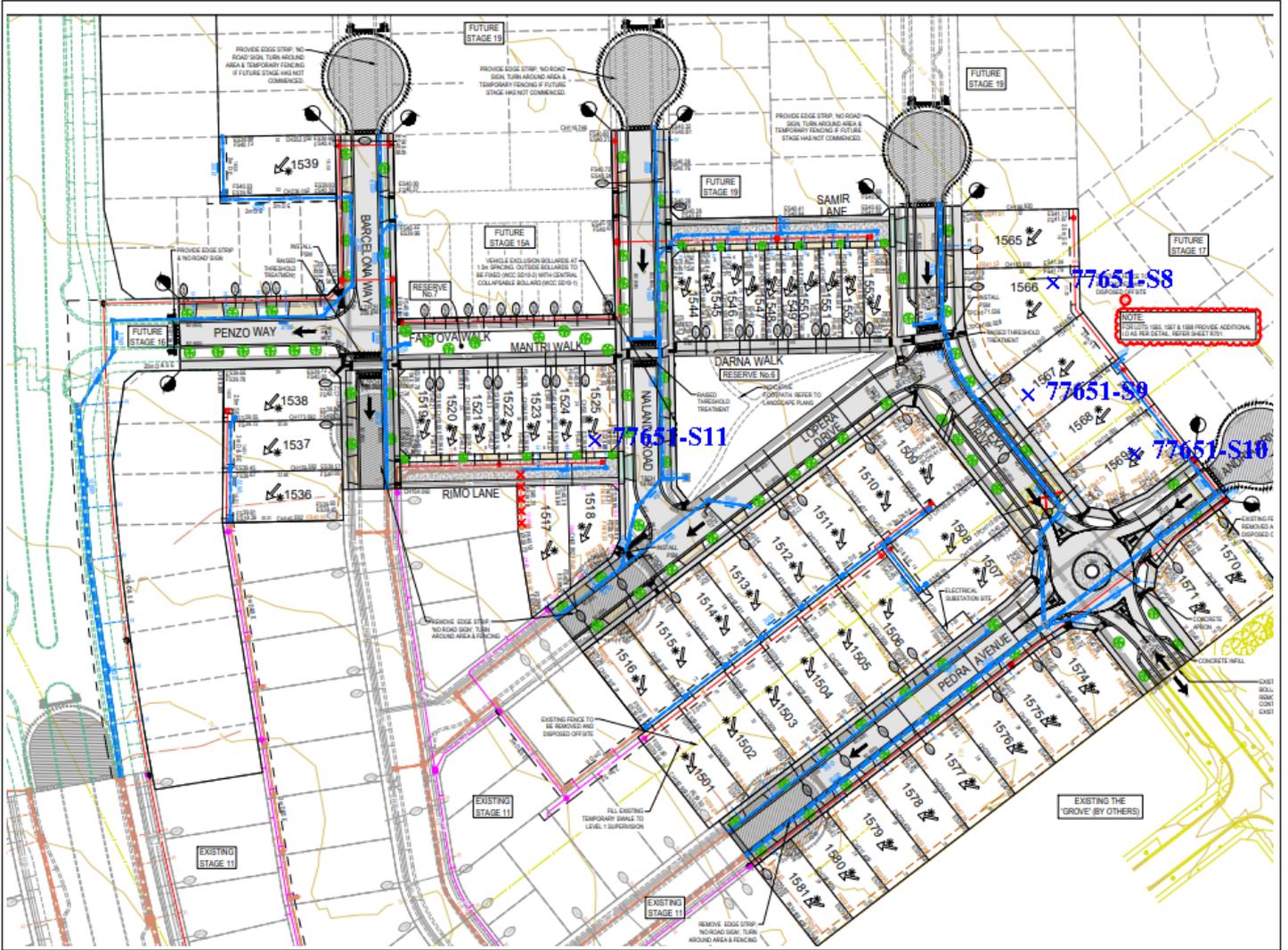
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	77651-S8	77651-S9	77651-S10	77651-S11
Date Tested	28/08/2024	28/08/2024	28/08/2024	28/08/2024
Time Tested	09:45	10:05	10:30	13:00
Test Request #/Location	Lot 1566	Lot 1567	Lot 1569	Lot 1525
Easting	292265	292273	292308	292204
Northing	5807753	5807733	5807736	5807640
Layer / Reduced Level	2 - final layer	1 - final layer	2 - final layer	1
Thickness of Layer (mm)	300	300	300	300
Soil Description	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown
Test Depth (mm)	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	3	5	2	1
Field Wet Density (FWD) t/m ³	1.82	1.87	1.86	1.83
Field Moisture Content %	32.8	30.6	33.3	33.0
Field Dry Density (FDD) t/m ³	1.37	1.43	1.40	1.37
Peak Converted Wet Density t/m ³	**	**	**	**
Adjusted Peak Converted Wet Density t/m ³	1.83	1.87	1.84	1.79
Moisture Variation (Wv) %	**	**	**	**
Adjusted Moisture Variation %	0.5	-0.5	0.0	3.0
Hilf Density Ratio (%)	99.5	100.0	101.0	102.5
Compaction Method	Standard	Standard	Standard	Standard
Report 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



Material Test Report



Report Number: GS7765/1-4
Issue Number: 1
Date Issued: 02/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7765/1
Project Name: Alamora Estate Stage 15 (Level One)
Project Location: Tarneit
Work Request: 19844
Date Sampled: 29/08/2024
Dates Tested: 29/08/2024 - 30/08/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, brown grey
Material Source: Onsite

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Approved Signatory: Kallam Collins
Laboratory 2IC

NATA Accredited Laboratory Number: 15055

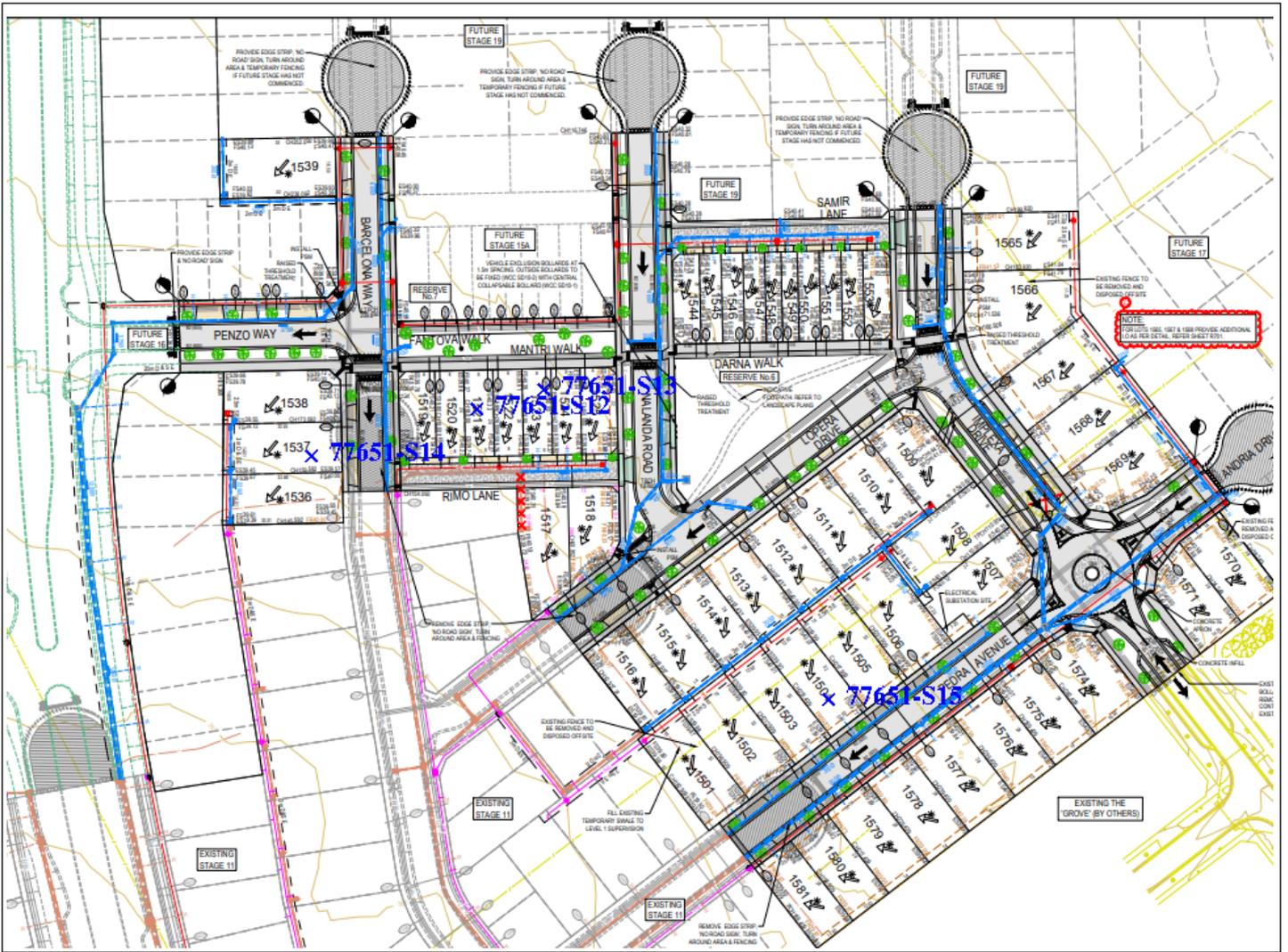
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	77651-S12	77651-S13	77651-S14	77651-S15
Date Tested	29/08/2024	29/08/2024	29/08/2024	29/08/2024
Time Tested	09:45	10:10	11:15	13:15
Test Request #/Location	Lot 1546	Lot 1550	Lot 1537	Retest S7
Easting	292205	292215	292150	292296
Northing	5807686	5807713	5807567	5807631
Layer / Reduced Level	2 - final layer	2 - final layer	1	1 - final layer
Thickness of Layer (mm)	300	300	200	200
Soil Description	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown
Test Depth (mm)	275	275	175	175
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	6	0
Field Wet Density (FWD) t/m ³	1.80	1.82	1.95	1.81
Field Moisture Content %	32.5	28.6	22.9	29.3
Field Dry Density (FDD) t/m ³	1.36	1.42	1.59	1.40
Peak Converted Wet Density t/m ³	1.81	1.80	**	1.82
Adjusted Peak Converted Wet Density t/m ³	**	**	2.01	**
Moisture Variation (Wv) %	1.0	2.5	**	1.5
Adjusted Moisture Variation %	**	**	-0.5	**
Hilf Density Ratio (%)	99.5	101.5	97.0	99.5
Compaction Method	Standard	Standard	Standard	Standard
Report 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



Material Test Report



Report Number: GS7765/1-5
Issue Number: 1
Date Issued: 04/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7765/1
Project Name: Alamora Estate Stage 15 (Level One)
Project Location: Tarneit
Work Request: 19890
Date Sampled: 31/08/2024
Dates Tested: 31/08/2024 - 03/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, brown, grey
Material Source: Onsite

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Approved Signatory: Kallam Collins
Laboratory 21C

NATA Accredited Laboratory Number: 15055

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

Sample Number	77651-S24		
Date Tested	31/08/2024		
Time Tested	11:15		
Test Request #/Location	Lot 1539		
Easting	292084		
Northing	5807615		
Layer / Reduced Level	2 - final layer		
Thickness of Layer (mm)	200		
Soil Description	Silty CLAY, medium to high plasticity, brown, grey		
Test Depth (mm)	175		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	9		
Field Wet Density (FWD) t/m ³	1.90		
Field Moisture Content %	22.9		
Field Dry Density (FDD) t/m ³	1.54		
Peak Converted Wet Density t/m ³	**		
Adjusted Peak Converted Wet Density t/m ³	1.96		
Moisture Variation (Wv) %	**		
Adjusted Moisture Variation %	0.5		
Hilf Density Ratio (%)	97.0		
Compaction Method	Standard		
Report Remarks	**		

Moisture Variation Note:

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

Material Test Report



Report Number: GS7765/1-6
Issue Number: 1
Date Issued: 04/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7765/1
Project Name: Alamora Estate Stage 15 (Level One)
Project Location: Tarneit
Work Request: 19873
Date Sampled: 30/08/2024
Dates Tested: 30/08/2024 - 03/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, grey, brown
Material Source: Onsite

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K. Collins

Approved Signatory: Kallam Collins
Laboratory 2IC

NATA Accredited Laboratory Number: 15055

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	77651-S16	77651-S17	77651-S18	77651-S19
Date Tested	30/08/2024	30/08/2024	30/08/2024	30/08/2024
Time Tested	09:30	09:45	10:15	11:15
Test Request #/Location	Lot 1539	Lot 1538	Lot 1536	Retest S4
Easting	292100	292123	292152	292258
Northing	5807621	5807570	5807561	5807620
Layer / Reduced Level	1	2 - final layer	2 - final layer	1 - final layer
Thickness of Layer (mm)	200	200	200	300
Soil Description	Silty CLAY, medium to high plasticity, grey,brown			
Test Depth (mm)	175	175	175	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	3	0	0
Field Wet Density (FWD) t/m ³	1.92	1.93	1.88	1.80
Field Moisture Content %	20.3	18.8	23.9	21.8
Field Dry Density (FDD) t/m ³	1.60	1.63	1.51	1.48
Peak Converted Wet Density t/m ³	1.85	**	1.85	1.87
Adjusted Peak Converted Wet Density t/m ³	**	1.90	**	**
Moisture Variation (Wv) %	3.0	**	3.5	4.0
Adjusted Moisture Variation %	**	3.0	**	**
Hilf Density Ratio (%)	104.0	102.0	101.0	96.5
Compaction Method	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**

Moisture Variation Note:

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

Material Test Report



Report Number: GS7765/1-6
Issue Number: 1
Date Issued: 04/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7765/1
Project Name: Alamora Estate Stage 15 (Level One)
Project Location: Tarneit
Work Request: 19873
Date Sampled: 30/08/2024
Dates Tested: 30/08/2024 - 03/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, grey, brown
Material Source: Onsite

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Approved Signatory: Kallam Collins
Laboratory 2IC

NATA Accredited Laboratory Number: 15055

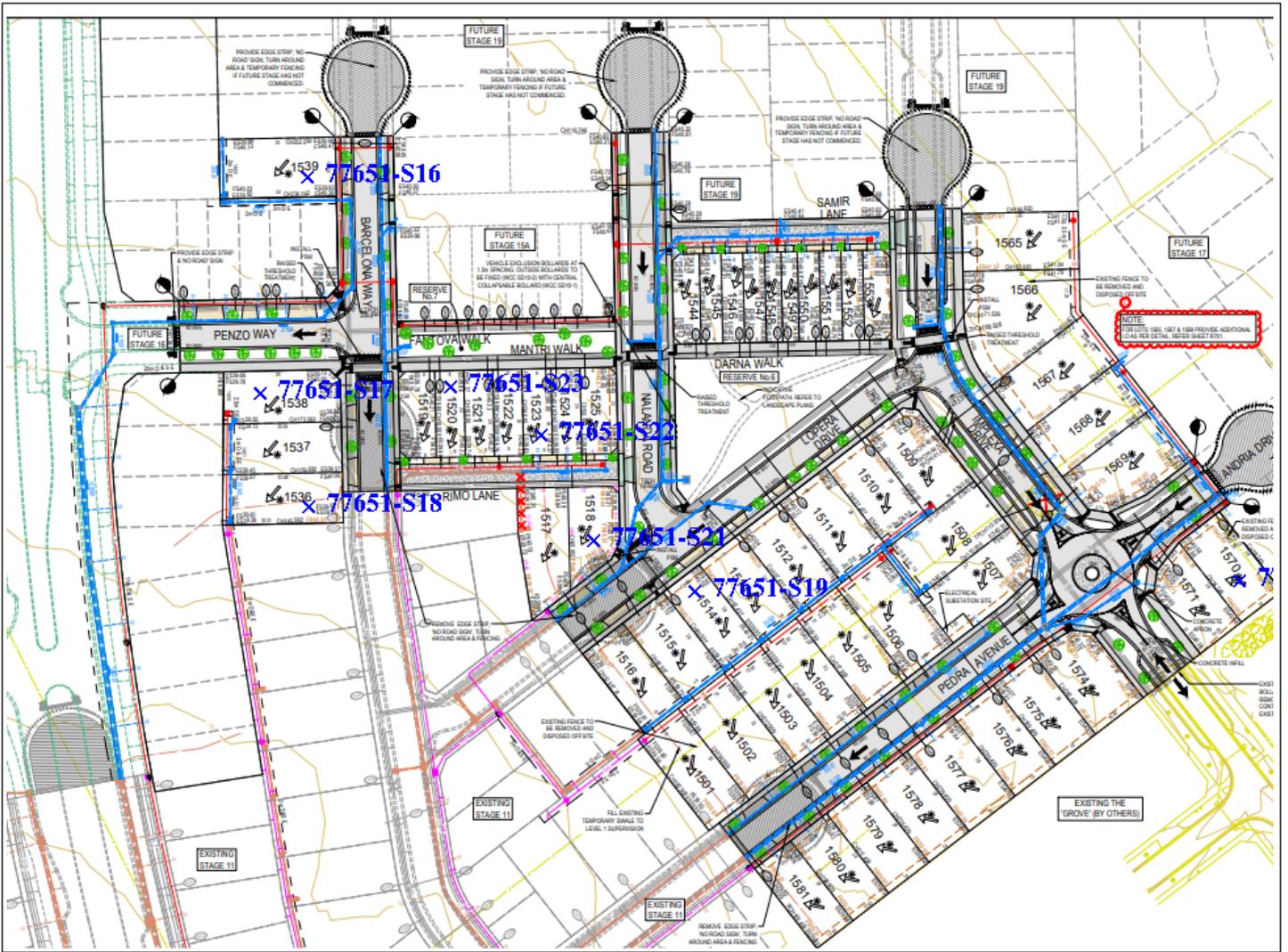
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	77651-S20	77651-S21	77651-S22	77651-S23
Date Tested	30/08/2024	30/08/2024	30/08/2024	30/08/2024
Time Tested	11:45	13:45	14:05	14:30
Test Request #/Location	Lot 1570	Lot 1518	Lot 1523	Lot 1520
Easting	292355	292223	292192	292161
Northing	5807727	5807612	5807623	5807625
Layer / Reduced Level	1 - final layer	2 - final layer	2 - final layer	2 - final layer
Thickness of Layer (mm)	300	300	300	300
Soil Description	Silty CLAY, medium to high plasticity, grey,brown			
Test Depth (mm)	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	6	3	7	0
Field Wet Density (FWD) t/m ³	1.89	1.95	1.89	1.75
Field Moisture Content %	22.5	25.4	23.1	22.4
Field Dry Density (FDD) t/m ³	1.54	1.56	1.53	1.43
Peak Converted Wet Density t/m ³	**	**	**	1.80
Adjusted Peak Converted Wet Density t/m ³	1.86	1.91	1.93	**
Moisture Variation (Wv) %	**	**	**	5.0
Adjusted Moisture Variation %	4.5	0.5	2.5	**
Hilf Density Ratio (%)	101.5	102.5	97.5	97.0
Compaction Method	Standard	Standard	Standard	Standard
Report 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



Material Test Report



Report Number: GS7765/1-7
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Added new plan as S30 was cut out of previous report.
Date Issued: 12/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
 Cole McCune
Contact:
Project Number: GS7765/1
Project Name: Alamora Estate Stage 15 (Level One)
Project Location: Tarneit
Work Request: 19968
Date Sampled: 05/09/2024
Dates Tested: 05/09/2024 - 06/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, grey, brown
Material Source: Onsite

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Approved Signatory: Lee Christie
 Level One Co-ordinator
 NATA Accredited Laboratory Number: 15055

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

Sample Number	77651-S25	77651-S26	77651-S27	77651-S28	77651-S29	77651-S30
Date Tested	05/09/2024	05/09/2024	05/09/2024	05/09/2024	05/09/2024	05/09/2024
Time Tested	10:15	10:35	10:55	12:45	13:55	14:20
Test Request #/Location	Stage 15A	Stage 15A	Stage 15A	Retest S23	Retest S18	Retest S20
Easting	292162	292154	292130	292176	292160	292366
Northing	5807652	5807668	5807664	5807610	5807558	5807733
Layer / Reduced Level	1	1	1	Layer 2 - final layer	Layer 2 - final layer	Layer 1 - final layer
Thickness of Layer (mm)	200	200	200	300	200	300
Soil Description	Silty CLAY, medium to high plasticity, grey	Silty CLAY, medium to high plasticity, grey	Silty CLAY, medium to high plasticity, grey	Silty CLAY, medium to high plasticity, grey, brown	Silty CLAY, medium to high plasticity, grey, brown	Silty CLAY, medium to high plasticity, grey, brown
Test Depth (mm)	175	175	175	275	175	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	3	3	12	6
Field Wet Density (FWD) t/m ³	1.81	1.82	1.81	1.79	1.97	1.97
Field Moisture Content %	31.1	30.8	28.3	25.9	22.0	26.7
Field Dry Density (FDD) t/m ³	1.38	1.39	1.41	1.42	1.61	1.56
Peak Converted Wet Density t/m ³	1.83	1.84	**	**	**	**
Adjusted Peak Converted Wet Density t/m ³	**	**	1.84	1.87	1.95	1.96
Moisture Variation (Wv) %	0.5	-0.5	**	**	**	**
Adjusted Moisture Variation %	**	**	2.0	2.0	2.0	0.0
Hilf Density Ratio (%)	99.0	98.5	98.5	96.0	100.5	100.5
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

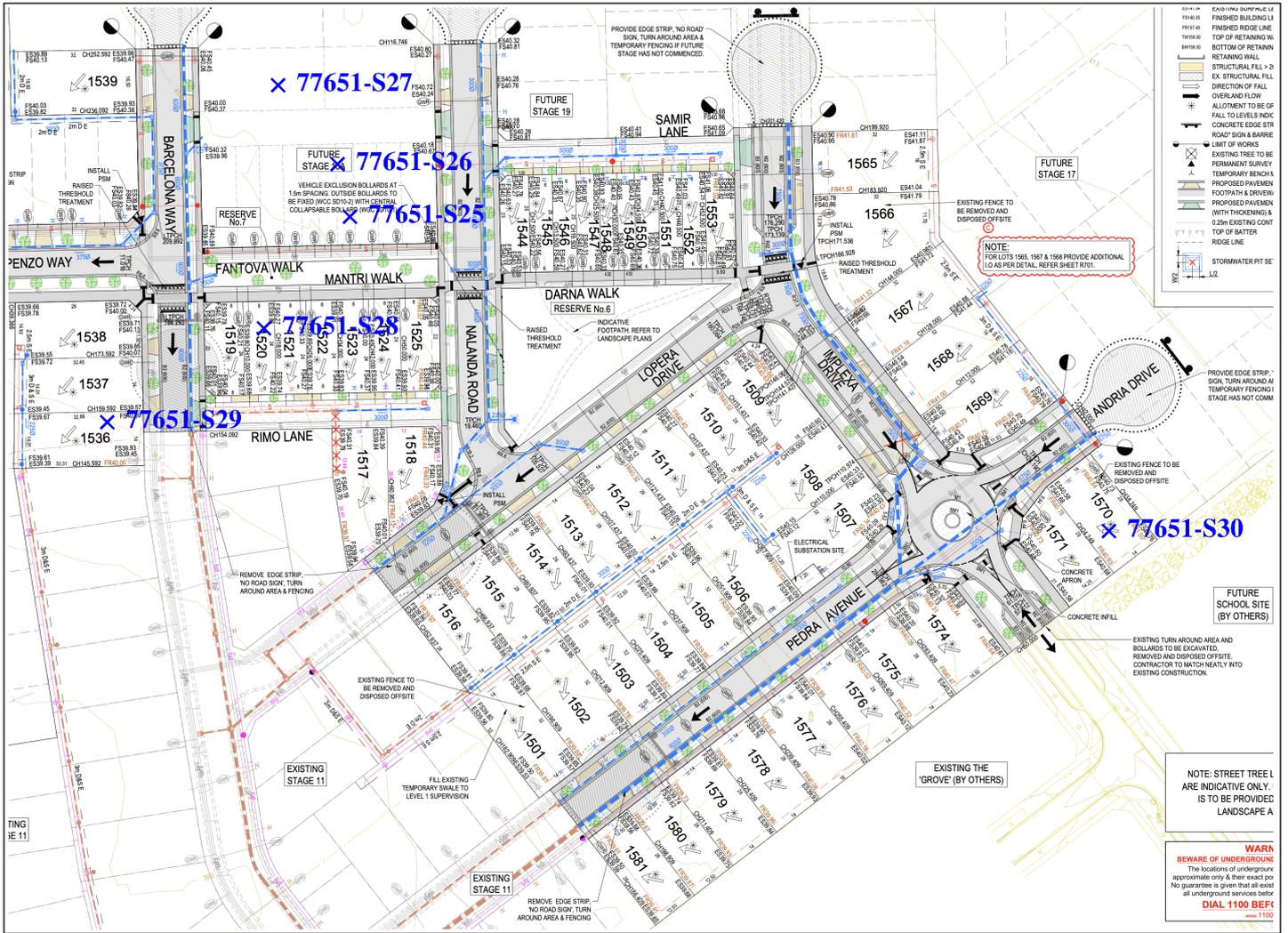
Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Sample Locations Plan

x - approximate test location



Material Test Report



Report Number: GS7765/1-8
Issue Number: 1
Date Issued: 09/09/2024
Client: Winslow Constructors Pty Ltd
Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7765/1
Project Name: Alamora Estate Stage 15 (Level One)
Project Location: Tarneit
Work Request: 20006
Date Sampled: 06/09/2024
Dates Tested: 06/09/2024 - 09/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, red brown
Material Source: Onsite

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Approved Signatory: Kallam Collins
Laboratory 21C

NATA Accredited Laboratory Number: 15055

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

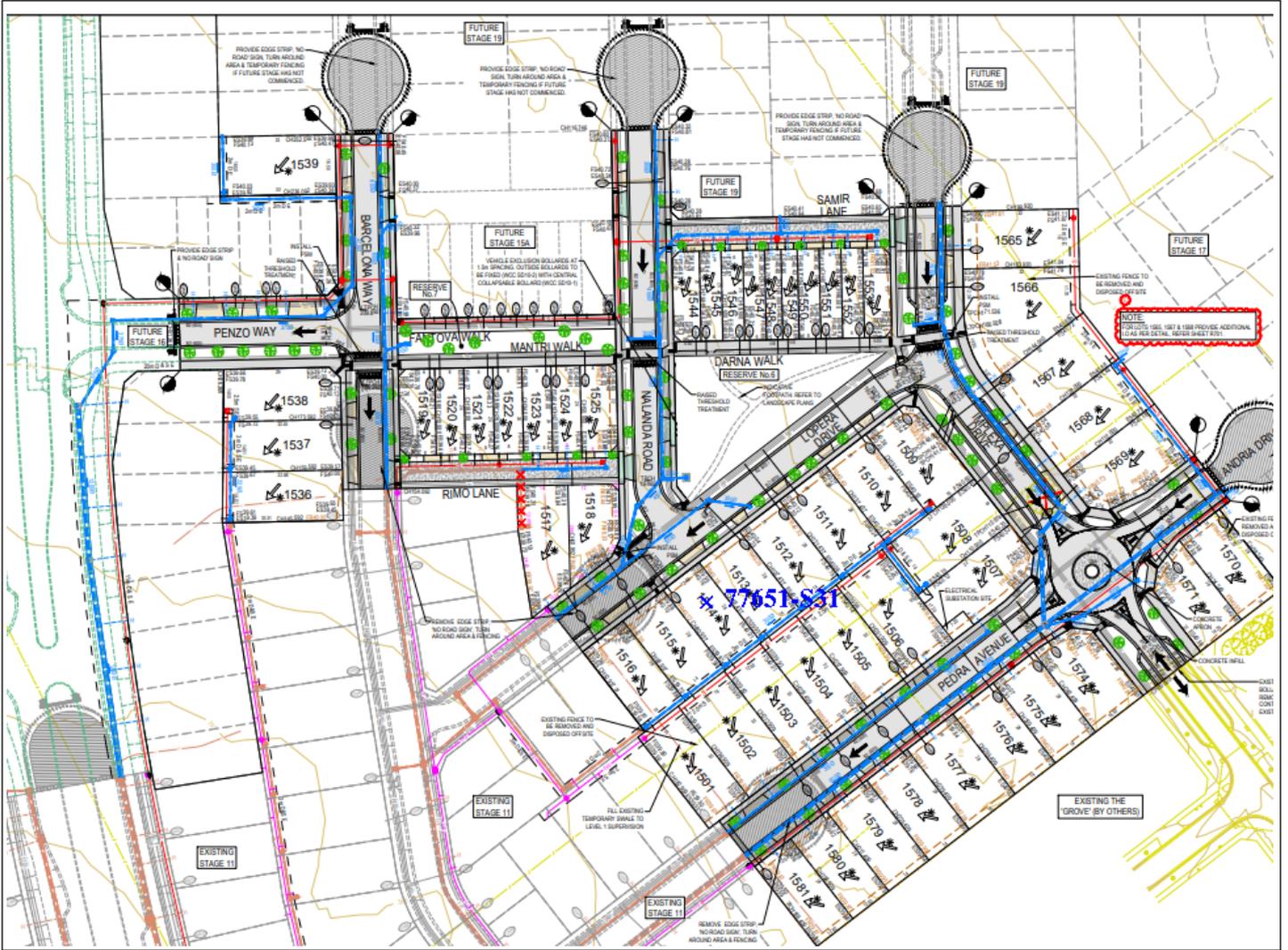
Sample Number	77651-S31		
Date Tested	06/09/2024		
Time Tested	11:45		
Test Request #/Location	Retest S4 / S19		
Easting	292269		
Northing	5807614		
Layer / Reduced Level	1 - final layer		
Thickness of Layer (mm)	300		
Soil Description	Silty CLAY, medium to high plasticity, red brown		
Test Depth (mm)	275		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0		
Field Wet Density (FWD) t/m ³	1.97		
Field Moisture Content %	29.0		
Field Dry Density (FDD) t/m ³	1.53		
Peak Converted Wet Density t/m ³	1.90		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	0.0		
Adjusted Moisture Variation %	**		
Hilf Density Ratio (%)	103.5		
Compaction Method	Standard		
Report 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



Material Test Report



Report Number: GS7765/1-9
Issue Number: 1
Date Issued: 11/09/2024
Client: Winslow Constructors Pty Ltd
Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7765/1
Project Name: Alamora Estate Stage 15 (Level One)
Project Location: Tarneit
Work Request: 20022
Date Sampled: 09/09/2024
Dates Tested: 09/09/2024 - 10/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, grey, brown
Material Source: Onsite

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NATA Accredited Laboratory Number: 15055

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

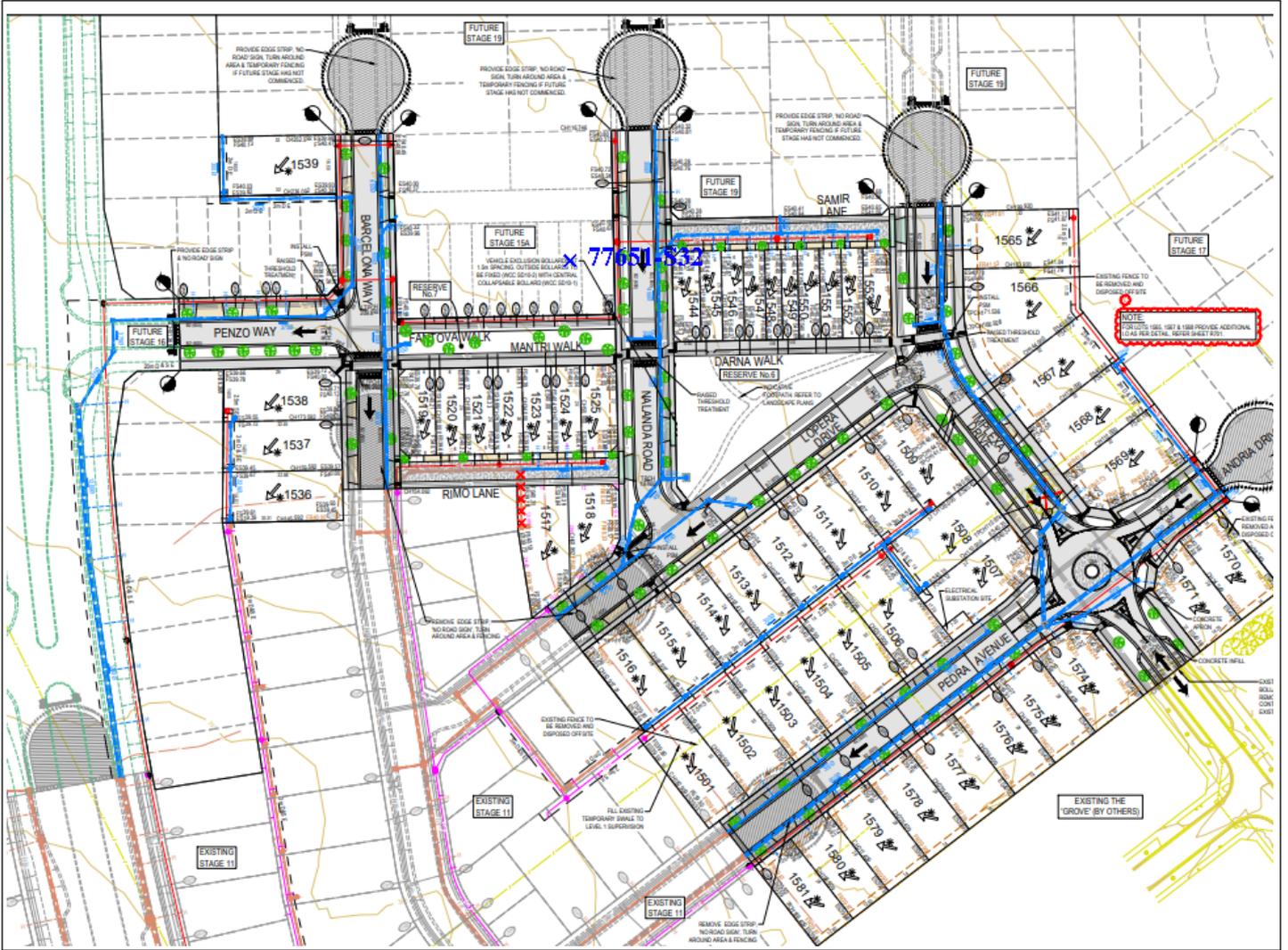
Sample Number	77651-S32		
Date Tested	09/09/2024		
Time Tested	11:45		
Test Request #/Location	Stage 15A		
Easting	292171		
Northing	5807664		
Layer / Reduced Level	2		
Thickness of Layer (mm)	300		
Soil Description	Silty CLAY, medium to high plasticity, grey brown		
Test Depth (mm)	275		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	3		
Field Wet Density (FWD) t/m ³	1.88		
Field Moisture Content %	21.9		
Field Dry Density (FDD) t/m ³	1.54		
Peak Converted Wet Density t/m ³	**		
Adjusted Peak Converted Wet Density t/m ³	1.95		
Moisture Variation (Wv) %	**		
Adjusted Moisture Variation %	-0.5		
Hilf Density Ratio (%)	96.5		
Compaction Method	Standard		
Report 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



Material Test Report



Report Number: GS7765/1-10
Issue Number: 1
Date Issued: 12/09/2024
Client: Winslow Constructors Pty Ltd
Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7765/1
Project Name: Alamora Estate Stage 15 (Level One)
Project Location: Tarneit
Work Request: 20043
Date Sampled: 10/09/2024 8:00
Dates Tested: 10/09/2024 - 11/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, brown, grey
Material Source: Onsite

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Laboratory 21C

NATA Accredited Laboratory Number: 15055

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

Sample Number	77651-S33	77651-S34	
Date Tested	10/09/2024	10/09/2024	
Time Tested	08:50	09:15	
Test Request #/Location	Stage 15A	Stage 15A	
Easting	292145	292124	
Northing	5807632	5807653	
Layer / Reduced Level	2	2	
Thickness of Layer (mm)	300	300	
Soil Description	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown	
Test Depth (mm)	275	275	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0	0	
Field Wet Density (FWD) t/m ³	1.88	1.90	
Field Moisture Content %	30.3	29.1	
Field Dry Density (FDD) t/m ³	1.44	1.47	
Peak Converted Wet Density t/m ³	1.87	1.82	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Moisture Variation (Wv) %	0.0	0.5	
Adjusted Moisture Variation %	**	**	
Hilf Density Ratio (%)	100.5	105.0	
Compaction Method	Standard	Standard	
Report Remarks	**	**	

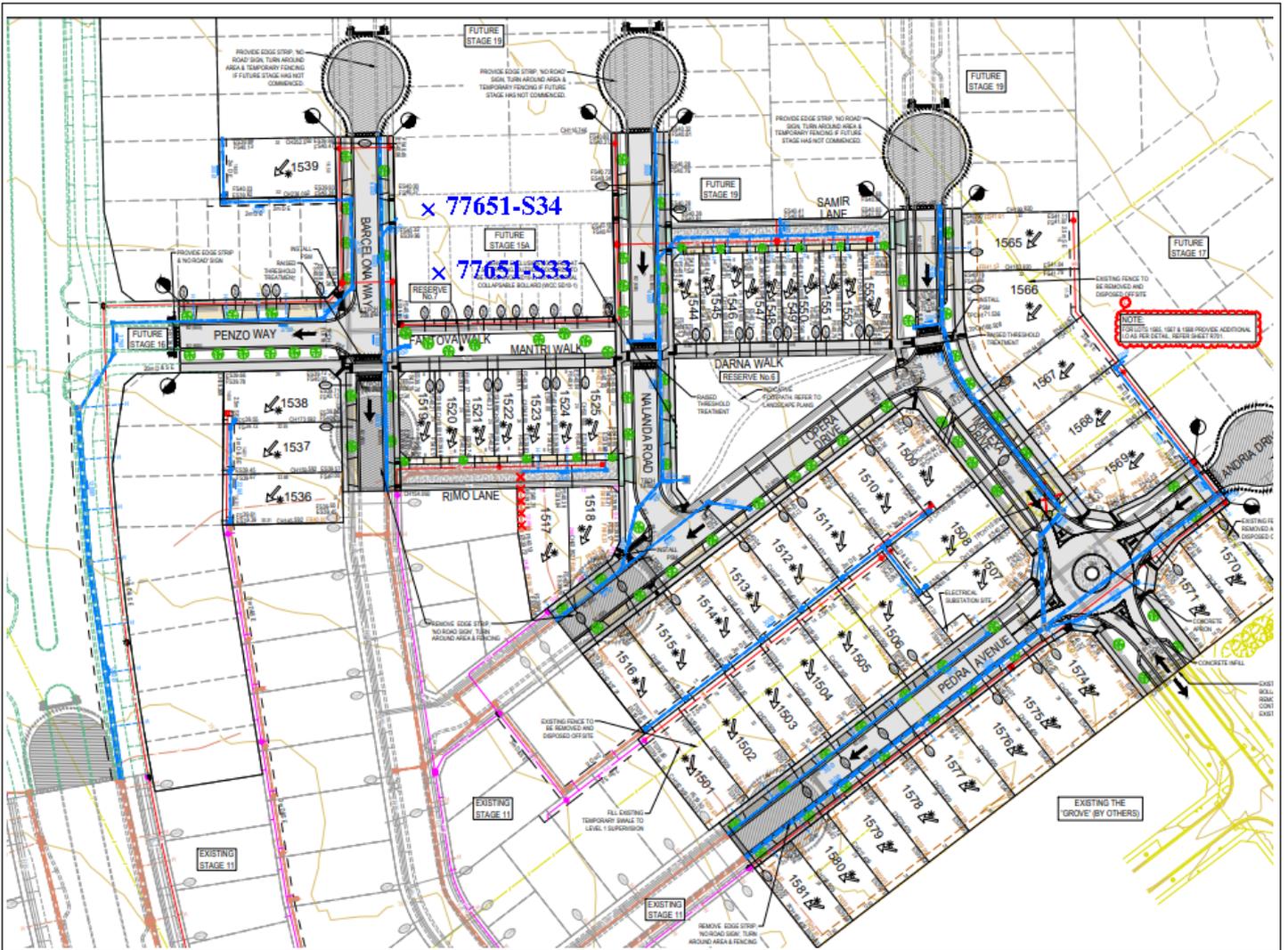
Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Sample Locations Plan

x - approximate test location



Material Test Report



Report Number: GS7765/1-11
Issue Number: 1
Date Issued: 13/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7765/1
Project Name: Alamora Estate Stage 15 (Level One)
Project Location: Tarneit
Work Request: 20077
Date Sampled: 11/09/2024 8:00
Dates Tested: 11/09/2024 - 12/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, grey brown
Material Source: Onsite

Ground Science Pty Ltd
 Ground Science Laboratory
 13 Brock Street Thomastown Victoria 3074
 Phone: (03) 9464 4617
 Email: kallam@groundscience.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



K. Collins

Approved Signatory: Kallam Collins
Laboratory 21C

NATA Accredited Laboratory Number: 15055

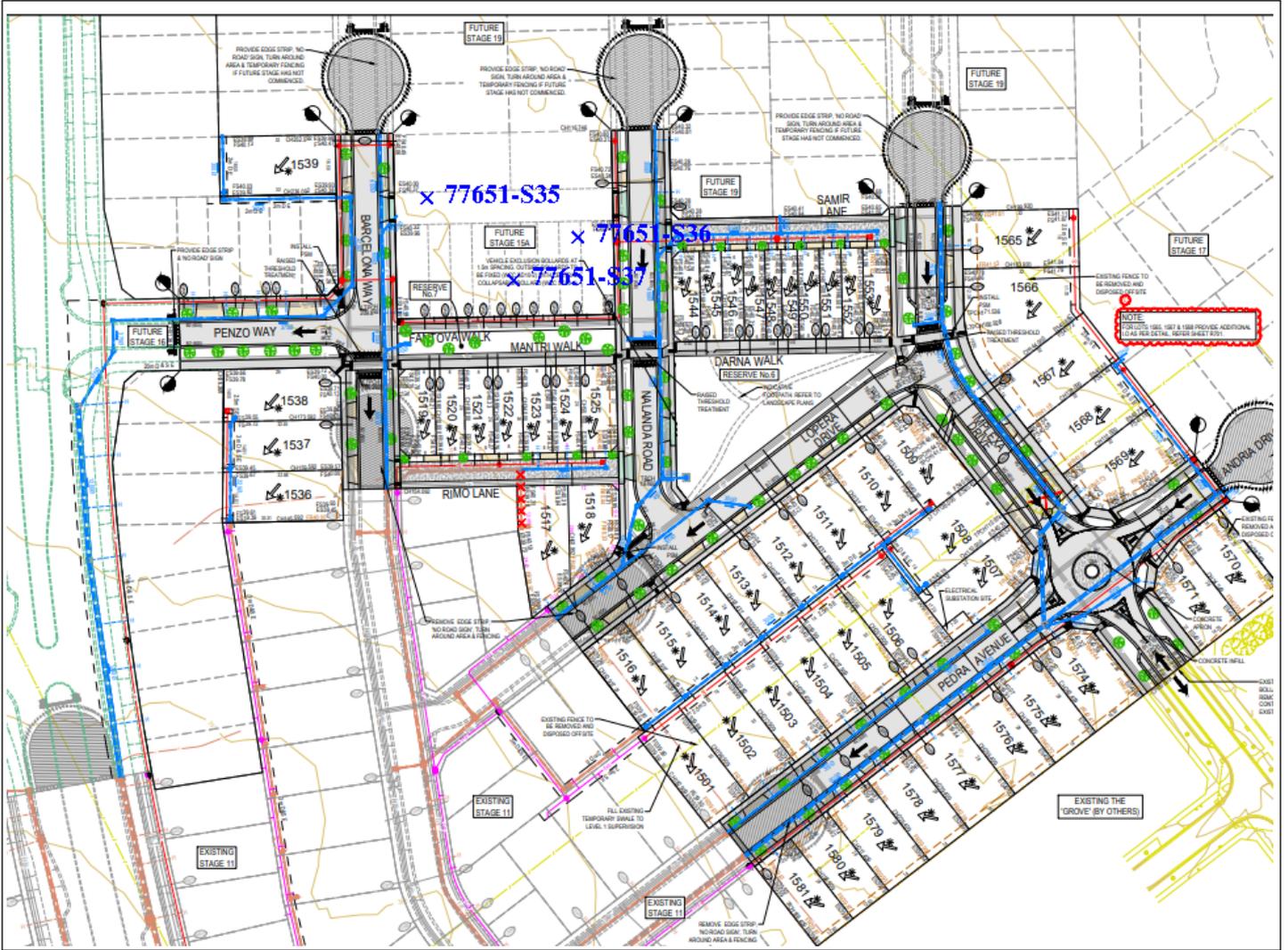
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	77651-S35	77651-S36	77651-S37
Date Tested	11/09/2024	11/09/2024	11/09/2024
Time Tested	11:00	11:20	11:35
Test Request #/Location	Stage 15A	Stage 15A	Stage 15A
Easting	292140	292170	292168
Northing	5807646	5807666	5807648
Layer / Reduced Level	3 - final layer	3 - final layer	3 - final layer
Thickness of Layer (mm)	250	250	250
Soil Description	Silty CLAY, medium to high plasticity, grey, brown	Silty CLAY, medium to high plasticity, grey, brown	Silty CLAY, medium to high plasticity, grey, brown
Test Depth (mm)	225	225	225
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	8	3	8
Field Wet Density (FWD) t/m ³	1.93	1.84	1.87
Field Moisture Content %	31.5	32.2	30.8
Field Dry Density (FDD) t/m ³	1.47	1.39	1.43
Peak Converted Wet Density t/m ³	**	**	**
Adjusted Peak Converted Wet Density t/m ³	1.91	1.82	1.87
Moisture Variation (Wv) %	**	**	**
Adjusted Moisture Variation %	0.0	0.5	0.0
Hilf Density Ratio (%)	101.0	101.0	100.0
Compaction Method	Standard	Standard	Standard
Report 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



APPENDIX C

Site Photographs





30 Aug 2024 2:53:32 pm
GS7765/1 Day 5
lots 1518 to 1525



5 Sep 2024 2:30:00 pm
GS7765/1 Day 6
Stage 15A fill area

