CONSULTING ENGINEERS
ABN 91 686 494 280

Level 1 Inspection and Testing Report

The Thornhill Gardens, 352 Paynes Road (Stage 2)

Thornhill Park

Winslow Constructors

30 September 2025

CTCE Ref: 25090.0R_V1

CONSULTING ENGINEERS
ABN 91 686 494 280

30 September 2025

Winslow Constructors

50 Barry Road

Campbellfield, VIC, 3061

Attention: Tha Nay Aye

Level 1 Inspection and Testing

The Thornhill Gardens, 352 Paynes Road (Stage 2), Thornhill Park

C&T Consulting Engineers has prepared this report to summarise the Level 1 Inspection and Testing activities conducted for the aforementioned project.

Distribution

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1 electronic copy	Winslow Constructors

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For an on behalf of C&T Consulting Engineers

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Director

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1. Introduction

This report presents the results of the Level 1 inspection activities, compaction control services and laboratory testing services for The Thornhill Gardens Stage 2 project located at 352 Paynes Road in Thornhill Park (the site).

2. Project Background

C&T Geotechnical was engaged to provide Level 1 Inspection and testing services for the bulk earthworks component of the project. Authorisation to proceed was provided by Winslow Constructors (the 'Client') who were the nominated 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. C&T 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 presents the Level 1 Inspection & Testing results which commenced on 5 March 2025 and was completed on 6 June 2025. The filling works generally took place on residential allotments.

3.2 Placement Methodology

A geotechnical bulk earthworks specification was not available for the project. The placement of the controlled fill on the above-mentioned areas was carried out in general accordance with the guidelines presented in AS3798 (2007) Guidelines on Earthworks for Commercial & Residential Developments. The fill placement methodology adopted for the works generally involved the following:

1. the site surface to be adequately stripped of all topsoil and organic matter, with the subgrade approved by the Geotechnical Inspection and Testing Authority (GITA) prior to fill placement
2. fill material, whether imported or site-won, to consist of naturally occurring, clean material free from deleterious substances. The fill is to comply with Section 4.4 of AS 3798 (2007), with:
    - a maximum particle size not exceeding two-thirds of the compacted layer thickness
    - no more than 20 % of the material comprising particles exceeding 37.5 mm in diameter
3. fill is to be moisture conditioned to within + / - 3 % of optimum moisture content (OMC)
4. fill is to be constructed in thin loose layers to form a composite layer not exceeding 300 mm
5. fill to be compacted to a dry density ratio of not less than 95 % Standard Compaction in accordance with AS 1289 5.1.1
6. completing field density testing at a frequency for large scale developments (Type 1 AS3798) which nominates a frequency of:
    - one test per layer or 200 mm per 2500 m^2
    - one test per 500 m^3 distributed reasonably evenly throughout the full depth and area, or
    - three tests per site visit; whichever requires the most tests.

4. Level 1 Inspection & Testing Results

4.1 Subgrade Preparation

The fill placement zones generally required stripping of topsoil, vegetation and organics. Scrapers were used to carry out the site stripping until a base comprising residual Newer Volcanic Group Silty / Gravelly CLAY / CLAY (CH), high plasticity, brown to red / brown was achieved.

The subgrade was scarified using an onsite grader, moisture conditioned and compacted, followed by a proof roll using a fully loaded water cart which showed no deflections, springing or rutting. The subgrade was deemed suitable for subsequent fill placement.

Figure 1: Subgrade Preparation Works (Source: C&T)

4.2 Fill Source Materials

Fill source materials were nominated by the project contractors and sourced predominantly from onsite stockpiles, understood to have been generated mainly from local excavations / road boxing works.

4.3 Inspection of Fill Source Materials

C&T performed an assessment of the fill source materials for the following:

1. identifying fill material suitability (engineering properties) including cohesion and composition
2. observing building debris and vegetative matter
3. observing oversize rock particles
4. 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. The materials typically comprised CLAY / Gravelly / Silty CLAY (CH), high plasticity, brown to dark brown / red, trace fine to medium grained sand, with fine to coarse gravel.

4.3.2. Building Debris & Vegetative Matter

Building debris and vegetative matter were not observed in the nominated fill material.

4.3.3. Oversize Particles

Isolated cobbles or boulders were occasionally observed during placement and sidecasted during the spreading / compaction process.

4.3.4. Fill Moisture

The fill was assessed to be dry of the inferred OMC. Water carts were used to moisture condition the fill in the stockpiles as well as during placement.

4.4 Fill Construction

The contractor had the following plant available for the construction of the engineered fill platform:

1. excavators
2. water carts
3. dump trucks & trailers
4. 815 compactors
5. grader / scraper.

4.4.1 Climate

Weather conditions ranged from fine / sunny to overcast, with temperatures ranging between 20 to 30 degrees Celsius in the early stages of the works, and between 10 to 15 degrees in the later stages.

4.4.2 Filling Process

The filling process was generally consistent. The process typically involved the fill materials carted to the site by dump trucks and trailers and stockpiled adjacent to the fill placement zones. A water cart was used to moisture condition the fill stockpiles before spreading.

The fill materials were spread into loose layers averaging around 150 mm thick. Each layer was compacted using the 815 compactor, applying a minimum of 10 to 15 passes per layer observed. A water cart was also used to moisture condition the fill material during placement. The thin loose layers of fill were placed and compacted to achieve a 300 mm thick composite fill layer, before field density testing was carried out.

Figure 2: Fill Being Moisture Conditioned During Compaction Process (Source: C&T)

Figure 3: Completed Fill Placement on Lots 246 - 254 (Source: C&T)

4.5 Compaction Control & Moisture Testing Results

Throughout the filling process and/or at the completion of the day's 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 field density tests using a nuclear moisture-density gauge and rapid HILF compaction tests in C&T Geotechnical's NATA accredited testing laboratory (AS1289 5.8.1 and AS1289 5.7.1).

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** which also includes test location plans. It should be noted that the tests are a representation of the fill placed and support the visual assessment of the works completed.

In general, all tests achieved the minimum target density ratio of 95 % Standard Compaction and moisture variation within + / - 3 % of OMC.

5. Compliance Statement

C&T Geotechnical (Melbourne) has undertaken Level 1 Inspection and Testing services for the construction of the controlled fill for The Thornhill Gardens Stage 2 project located at 352 Paynes Road in Thornhill Park. It has also been observed that the prepared subgrade provided an adequate base for the subsequent placement of controlled fill.

Based on observations made and the results of density tests, it is considered that the controlled fill placed has been constructed in accordance with the guidelines provided by AS3798 (2007).

6. Post-Earthworks Maintenance & Operational Considerations

6.1 Post-Filling Condition Monitoring & Maintenance

Upon completion of earthworks and issuance of this Level 1 Inspection & Testing report, the following considerations must be observed by the built form team to ensure the long-term performance of the fill platform:

1) soft spot development: localised softening or disturbances may occur due to:
    - climatic influences
    - temporary water ponding (e.g. in footings, road boxing or similar)
    - construction traffic
    - inadequate surface drainage.

These are not indicative of fill performance failure but are typically the result of environmental or construction operational factors. The remediation of soft spots caused by insufficient maintenance is to be managed by the site operator/owner in accordance with their geotechnical engineer's guidance.

2) maintenance responsibility: any softening or surface degradation observed after completion of the works is considered a maintenance element
    - it is the responsibility of the site operator/owner and/or subsequent contractors to manage and rectify maintenance issues
3) drainage management: it is strongly advised that surface drainage be established and maintained effectively to prevent water ingress into the fill materials
    - proper grading and runoff management are essential to preserve the integrity of the fill
    - the engineered fill pad does not have any drainage provisions incorporated into the final as-constructed pad
    - the incoming site operator will need to manage site drainage based on the proposed site layout

4) intrusive investigations: any post-completion intrusive geotechnical investigations (e.g. trial pits or boreholes completed by other consultants) may compromise the compaction and integrity of the fill
    - such activities must be carefully planned and documented, particularly if undertaken by third parties
    - the integrity of fill material performance is null and void where intrusive fill investigations are completed and the engineered fill is compromised.

6.2 As Built Survey Requirements

1) an as-built survey of engineered fill levels is a critical component of the handover documentation
2) this survey must be provided by the contractor, as it falls outside the scope of the Level 1 Inspection & Testing report.

7. Statement of Limitations

This report has been prepared by C&T Consulting Engineers exclusively for the commissioning client and the project described. The scope of work was limited to the services outlined herein and does not include investigation of all possible site conditions or risks.

Findings, opinions, and recommendations are based on conditions observed during limited sampling, testing, and fieldwork at the time of investigation. Subsurface conditions may vary across the site, and changes can occur after the investigation. No warranty is given that conditions described are representative of the entire site or future conditions.

If site conditions encountered during works differ from those described, C&T Consulting Engineers must be contacted promptly for reassessment and advice. Reliance on this report without such consultation is at the user's risk.

Where information has been provided by the client or third parties, it is assumed to be correct unless otherwise stated. C&T Consulting Engineers accepts no liability for errors, omissions, or misinterpretations arising from such information.

The advice in this report is based on information available at the time of preparation. C&T Consulting Engineers has no ongoing obligation to update or revise this document unless separately engaged.

Plans, diagrams, and sketches included are for illustrative purposes only and should not be used for construction or detailed design without independent verification.

This report is intended for the commissioning client's use for the stated project only. No responsibility is accepted for use by other parties or for other purposes. This report must not be altered or reproduced except in full without written approval.

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

APPENDIX A

Field Density Test Summary

Project Summary Report

Report Date: 18/09/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)
50 Barry Road, Campbellfield Victoria 3061
Project Number: GSSW2544
Project Name: 352 PAYNES ROAD - STAGE 2 (LEVEL 1)
Project Location: THORNHILL PARK
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Test Methods: AS 1289 5.7.1 STD & 5.8.1 & 2.1.1

C & T Geotechnical (South West)
8 Freedman Street North Geelong Vic 3215
Phone: (03) 5282 1566
Email: Chrism@ctgeotechsw.com.au

Lot #	Sample #	Date Sampled	Location	Chainage (m)	Location Offset (m)	Elevation (m)	Layer	Relative Compaction (%)	Moisture Variation (%)	Moisture Content (%)	Field Wet Density (t/m3)
**	2544-S1	18/03/2025	Lot 245 Chainages from Yolanda Grove	35	2m North from rear of lot	**	1 (300mm)	95.0	-0.5	17.6	1.83
**	2544-S2	18/03/2025	Lot 243 Chainages from Yolanda Grove	45	3m East from rear of lot	**	1 (300mm)	96.0	0.0	21.7	1.86
**	2544-S3	18/03/2025	Lot 249 Chainages from Yolanda Grove	70	3m West from rear of lot	**	1 (300mm)	97.5	0.0	20.4	1.87
**	2544-S4	19/03/2025	Lot 246 Chainage from Yolanda Grove	38	2m from East of lot	**	FSL	98.0	0.5	22.3	1.87
**	2544-S5	19/03/2025	Lot 248 Chainage from Yolanda Grove	57	3m from east of lot	**	FSL	99.5	0.5	19.5	1.89
**	2544-S6	19/03/2025	Lot 242 Chainage from Yolanda Grove	77	3m from west of lot	**	FSL	98.0	1.5	19.7	1.86
**	2544-S7	24/03/2025	Lot 244 Chainage from Yolanda Grove	37	5m East, from West boundary of lot	**	1 (275mm)	96.5	0.5	17.7	1.82
**	2544-S8	24/03/2025	Lot 241 Chainage from Yolanda Grove	76	15m West from front of lot	**	1 (275mm)	97.0	0.5	23.9	1.85
**	2544-S9	24/03/2025	Lot 240 Chainage from Yolanda Grove	100	22m West from front of lot	**	1 (275mm)	96.0	0.5	24.4	1.85
**	2544-S10	24/03/2025	Lot 247 Chainage from Yolanda Grove	36	2m West from rear of lot	**	1 (300mm)	96.0	-1.5	27.9	1.83
**	2544-S11	24/03/2025	Lot 249 Chainage from Yolanda Grove	63	25m West from read of lot	**	1 (300mm)	101.5	-0.5	24.1	1.95
**	2544-S12	24/03/2025	Lot 251 Chainage from Yolanda Grove	89	16m West from rear of lot	**	1 (300mm)	100.0	-0.5	25.7	1.94
**	2544-S13	01/04/2025	Lot 246 Taken from Jackfruit Street	37	2m East from west boundary	**	600mm	95.0	0.5	23.3	1.83
**	2544-S14	01/04/2025	Lot 250 Taken from Jackfruit Street	68	8m East from front of lot	**	600mm	95.0	0.5	22.1	1.82
**	2544-S15	01/04/2025	Lot 253 Taken from Jackfruit Street	110	14m East from front of lot	**	600mm	93.5	2.0	16.6	1.85
**	2544-S16	01/04/2025	Lot 248 Taken from Jackfruit Street	42	14m East from front of lot	**	FSL	96.5	0.0	19.6	1.86
**	2544-S17	01/04/2025	Lot 252 Taken from Jackfruit Street	95	16m East from front of lot	**	FSL	95.5	0.5	20.3	1.84
**	2544-S18	01/04/2025	Lot 254 Taken from Jackfruit Street	118	4m East from front of lot	**	FSL	95.0	0.5	20.3	1.84
**	2544-S19	16/06/2025	Lot 245	291185	5821374	**	FSL	95.5	3.0	20.5	1.84
**	2544-S20	16/06/2025	Lot 244	291204	5821367	**	FSL	98.0	1.0	23.8	1.90
**	2544-S21	16/06/2025	Lot 243	291202	5821358	**	FSL	99.0	1.5	24.2	1.89
**	2544-S22	16/06/2025	Lot 242	291196	5821350	**	FSL	105.0	3.0	20.5	1.99
**	2544-S23	16/06/2025	Lot 241	291196	5821322	**	FSL	99.5	0.0	26.6	1.91
**	2544-S24	16/06/2025	Lot 240	291194	5821313	**	FSL	99.5	0.0	24.2	1.91
**	2544-S25	16/06/2025	Lot 239	291191	5821291	**	FSL	98.0	0.0	22.9	1.92
**	2544-S26	16/06/2025	Lot 238	291190	5821279	**	FSL	100.0	0.5	22.9	1.92
**	2544-S27	19/08/2025	Lot 261	291102	5821271	**	FSL	102.0	3.0	22.2	1.97
**	2544-S28	19/08/2025	Lot 262	291106	5821282	**	FSL	102.0	2.0	22.8	1.97
**	2544-S29	19/08/2025	Lot 263	291108	5821296	**	FSL	99.0	2.5	20.7	1.94
**	2544-S30	19/08/2025	Lot 264	291111	5821309	**	FSL	100.0	2.0	21.8	1.97
**	2544-S31	19/08/2025	Lot 265	291113	5821324	**	FSL	100.5	2.5	20.2	1.95
**	2544-S32	19/08/2025	Lot 266	291114	5821339	**	FSL	101.5	2.5	21.0	1.97
**	2544-S33	19/08/2025	Lot 267	291117	5821356	**	FSL	99.5	2.0	22.1	1.96
**	2544-S34	19/08/2025	Lot 268	291130	5821373	**	FSL	100.0	2.5	21.3	1.95
**	2544-S35	19/08/2025	Lot 269	291120	5821376	**	FSL	98.5	2.0	20.5	1.93

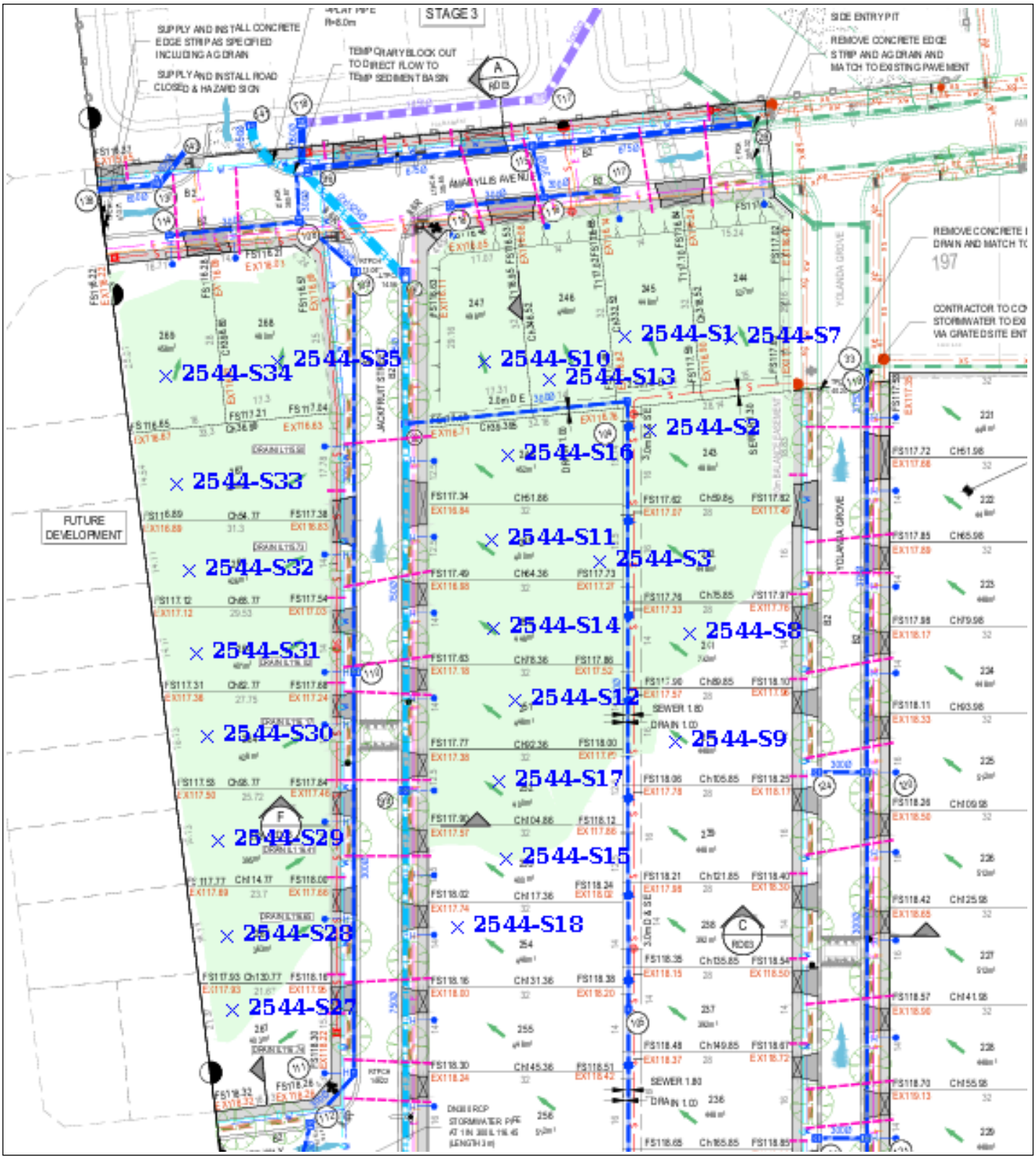
Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

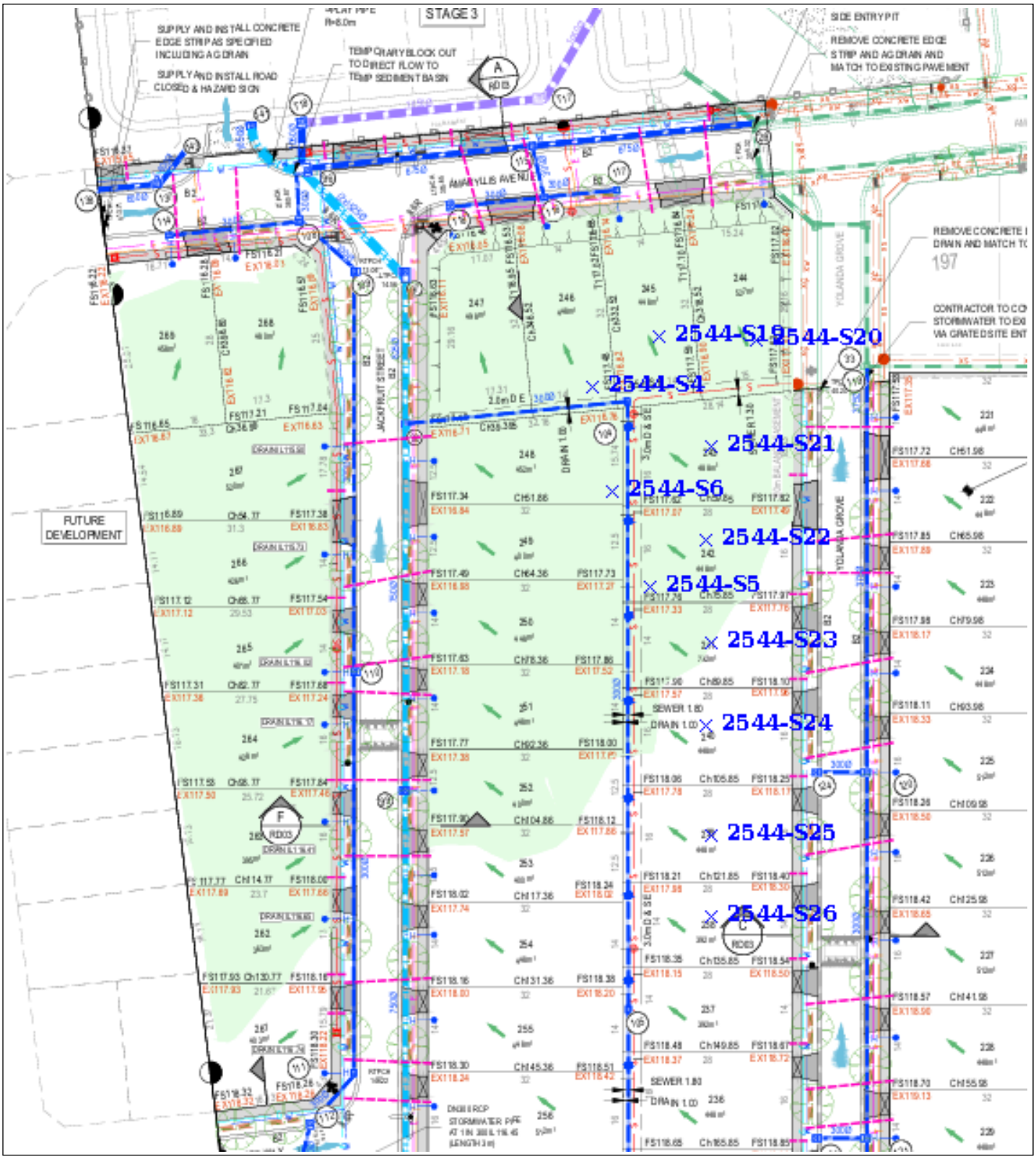
Sample Locations Plan

x - approximate test location



Sample Locations Plan

x - approximate test location



APPENDIX B

Field Density Test Reports

Material Test Report

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

Report Number: **GSSW2544-1**
Issue Number: 2 - *This version supersedes all previous issues*
Reissue Reason: *Incorrect Lot numbers provided*
Date Issued: 20/03/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)
50 Barry Road, Campbellfield Victoria 3061
Project Number: GSSW2544
Project Name: 352 PAYNES ROAD - STAGE 2 (LEVEL 1)
Project Location: THORNHILL PARK
Work Request: 22866
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 & +/- 3% Moisture Variation
Site Selection: Selected by Client
Location: Stage 2
Material: gravelly CLAY, medium to high plasticity, red/brown
Material Source: onsite stockpile

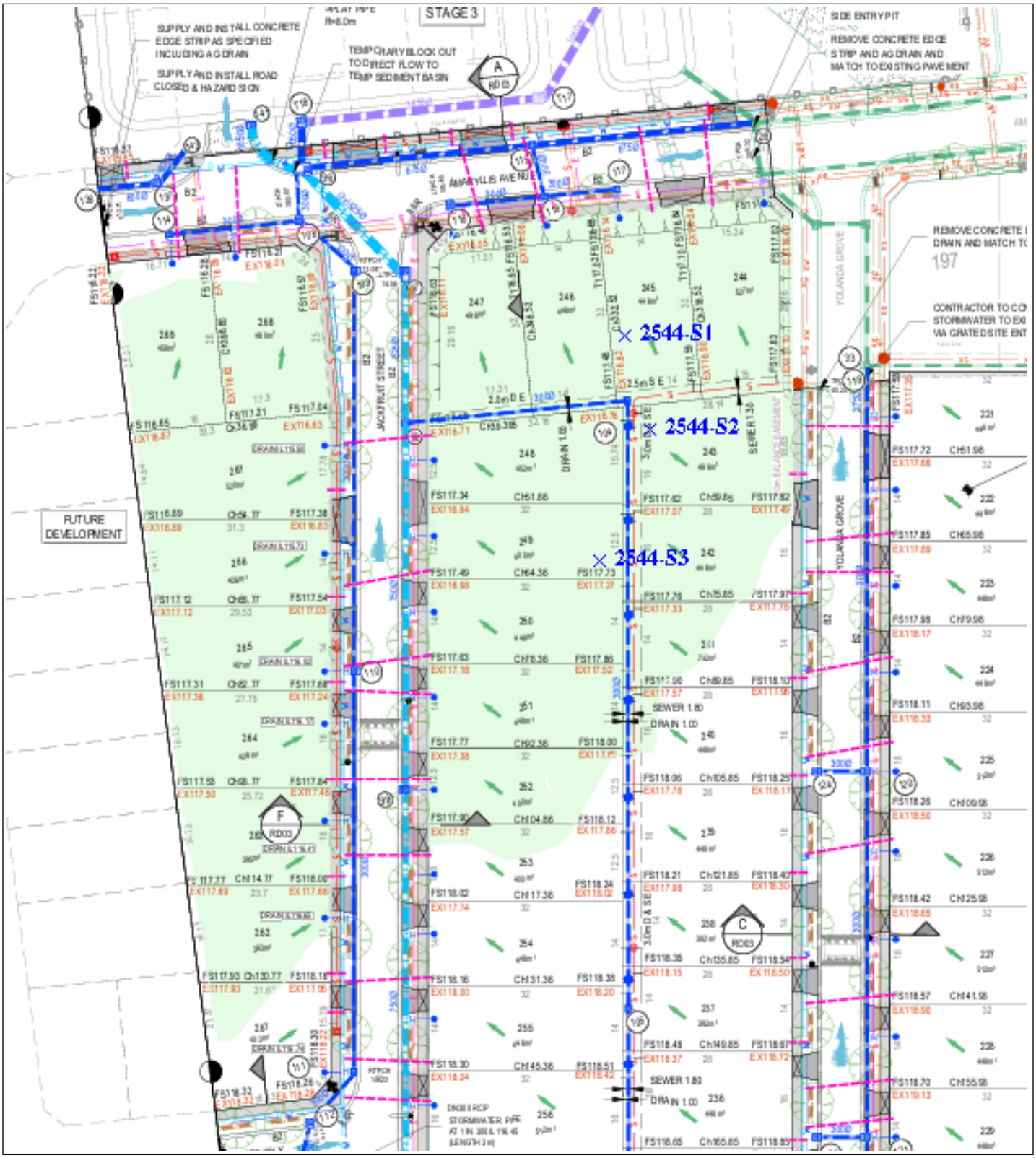
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	2544-S1	2544-S2	2544-S3
Date Tested	18/03/2025	18/03/2025	18/03/2025
Time Tested	15:24	15:29	15:38
Test Request #/Location	Lot 245 Chainages from Yolanda Grove	Lot 243 Chainages from Yolanda Grove	Lot 249 Chainages from Yolanda Grove
Chainage (m)	35	45	70
Location Offset (m)	2m North from rear of lot	3m East from rear of lot	3m West from rear of lot
Layer / Reduced Level	1 (300mm)	1 (300mm)	1 (300mm)
Thickness of Layer (mm)	300	300	300
Soil Description	gravelly CLAY, medium to high plasticity, red/brow	gravelly CLAY, medium to high plasticity, red/brow	gravelly CLAY, medium to high plasticity, red/brow
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	5	7	4
Field Wet Density (FWD) t/m^3	1.83	1.86	1.87
Field Moisture Content %	17.6	21.7	20.4
Field Dry Density (FDD) t/m^3	1.56	1.53	1.55
Peak Converted Wet Density t/m^3	**	**	**
Adjusted Peak Converted Wet Density t/m^3	1.93	1.94	1.92
Moisture Variation (Wv) %	**	**	**
Adjusted Moisture Variation %	-0.5	0.0	0.0
Hilf Density Ratio (%)	**95.0**	**96.0**	**97.5**
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: **GSSW2544-2**
Issue Number: 1
Date Issued: 20/03/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)
50 Barry Road, Campbellfield Victoria 3061
Project Number: GSSW2544
Project Name: 352 PAYNES ROAD - STAGE 2 (LEVEL 1)
Project Location: THORNHILL PARK
Work Request: 22891
Dates Tested: 19/03/2025 - 20/03/2025
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
Site Selection: Selected by Client
Location: Stage 2
Material: gravelly CLAY, medium to high plasticity, red/brown
Material Source: Onsite stockpile

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

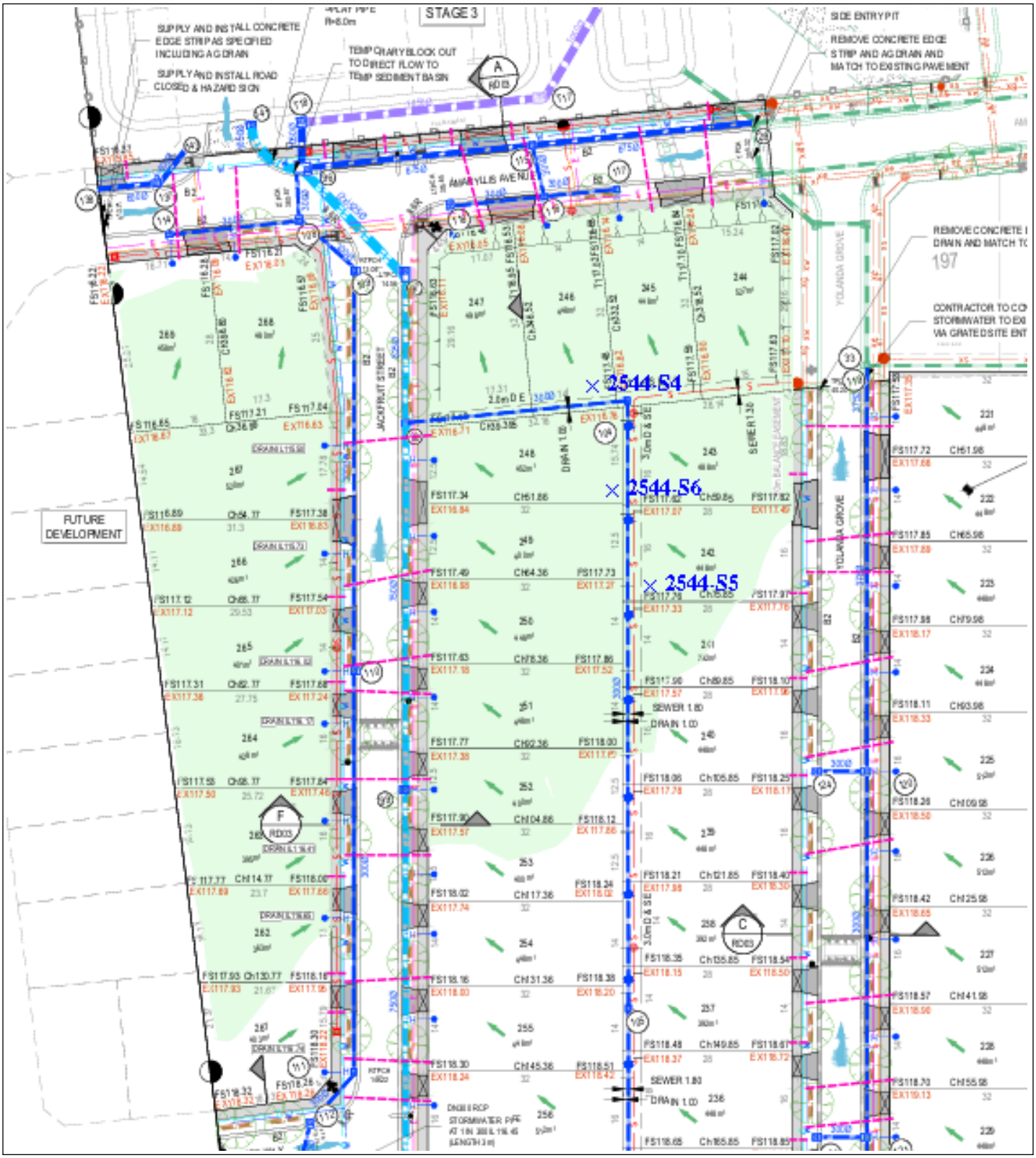
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	2544-S4	2544-S5	2544-S6
Date Tested	19/03/2025	19/03/2025	19/03/2025
Time Tested	14:27	14:37	14:54
Test Request #/Location	Lot 246 Chainage from Yolanda Grove	Lot 248 Chainage from Yolanda Grove	Lot 242 Chainage from Yolanda Grove
Chainage (m)	38	57	77
Location Offset (m)	2m from East of lot	3m from east of lot	3m from west of lot
Layer / Reduced Level	FSL	FSL	FSL
Thickness of Layer (mm)	300	300	300
Soil Description	gravelly CLAY, medium to high plasticity, red/brow	gravelly CLAY, medium to high plasticity, red/brow	gravelly CLAY, medium to high plasticity, red/brow
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	5	7	5
Field Wet Density (FWD) t/m^3	1.87	1.89	1.86
Field Moisture Content %	22.3	19.5	19.7
Field Dry Density (FDD) t/m^3	1.53	1.58	1.55
Peak Converted Wet Density t/m^3	**	**	**
Adjusted Peak Converted Wet Density t/m^3	1.92	1.90	1.89
Moisture Variation (Wv) %	**	**	**
Adjusted Moisture Variation %	0.5	0.5	1.5
Hilf Density Ratio (%)	**98.0**	**99.5**	**98.0**
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: **GSSW2544-3**
Issue Number: 1
Date Issued: 05/04/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)
50 Barry Road, Campbellfield Victoria 3061
Project Number: GSSW2544
Project Name: 352 PAYNES ROAD - STAGE 2 (LEVEL 1)
Project Location: THORNHILL PARK
Work Request: 22952
Dates Tested: 24/03/2025 - 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 & +/- 3% Moisture Variation
Site Selection: Selected by Client
Location: Stage 2
Material: gravelly CLAY, medium to high plasticity, red/brown
Material Source: onsite stockpile

Ground Science South West
Geotechnical & Environmental Consultants

Ground Science South West Pty Ltd
8 Freedman Street North Geelong Vic 3215
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Approved Signatory: Brent Elliott
Laboratory Manager
NATA Accredited Laboratory Number: 20109

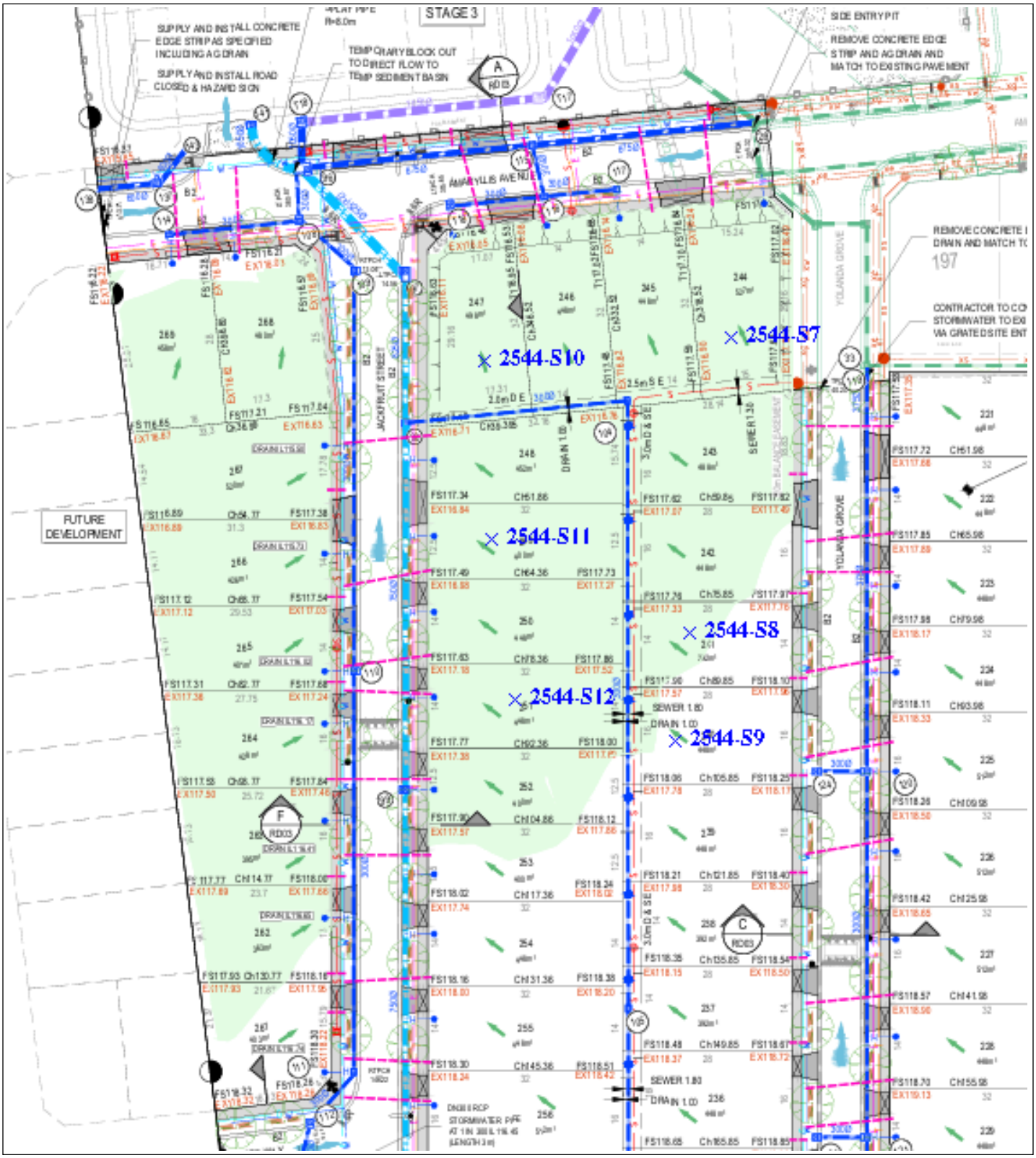
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	2544-S7	2544-S8	2544-S9	2544-S10	2544-S11	2544-S12
Date Tested	24/03/2025	24/03/2025	24/03/2025	24/03/2025	24/03/2025	24/03/2025
Time Tested	13:14	13:26	13:36	16:57	16:57	16:57
Test Request #/Location	Lot 244 Chainage from Yolanda Grove	Lot 241 Chainage from Yolanda Grove	Lot 240 Chainage from Yolanda Grove	Lot 247 Chainage from Yolanda Grove	Lot 249 Chainage from Yolanda Grove	Lot 251 Chainage from Yolanda Grove
Chainage (m)	37	76	100	36	63	89
Location Offset (m)	5m East, from West boundary of lot	15m West from front of lot	22m West from front of lot	2m West from rear of lot	25m West from read of lot	16m West from rear of lot
Layer / Reduced Level	1 (275mm)	1 (275mm)	1 (275mm)	1 (300mm)	1 (300mm)	1 (300mm)
Thickness of Layer (mm)	250	250	250	300	300	300
Soil Description	gravelly CLAY/SILT, medium to high plasticity, red	gravelly CLAY/SILT, medium to high plasticity, red	gravelly CLAY/SILT, medium to high plasticity, red	gravelly CLAY/SILT, medium to high plasticity, red	gravelly CLAY/SILT, medium to high plasticity, red	gravelly CLAY/SILT, medium to high plasticity, red
Test Depth (mm)	225	225	225	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	9	5	3	0	1	5
Field Wet Density (FWD) t/m^3	1.82	1.85	1.85	1.83	1.95	1.94
Field Moisture Content %	17.7	23.9	24.4	27.9	24.1	25.7
Field Dry Density (FDD) t/m^3	1.55	1.49	1.49	1.43	1.57	1.54
Peak Converted Wet Density t/m^3	**	**	**	1.91	**	**
Adjusted Peak Converted Wet Density t/m^3	1.89	1.91	1.92	**	1.91	1.94
Moisture Variation (Wv) %	**	**	**	-1.5	**	**
Adjusted Moisture Variation %	0.5	0.5	0.5	**	-0.5	-0.5
Hilf Density Ratio (%)	**96.5**	**97.0**	**96.0**	**96.0**	**101.5**	**100.0**
Compaction Method	**Standard**	**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



Material Test Report

Report Number: **GSSW2544-4**
Issue Number: 1
Date Issued: 05/04/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)
50 Barry Road, Campbellfield Victoria 3061
Project Number: GSSW2544
Project Name: 352 PAYNES ROAD - STAGE 2 (LEVEL 1)
Project Location: THORNHILL PARK
Work Request: 23050
Dates Tested: 01/04/2025 - 02/04/2025
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
Site Selection: Selected by Client
Location: Stage 2
Material: gravelly CLAY, medium to high plasticity, red/brown
Material Source: onsite stockpile

Ground Science South West
Geotechnical & Environmental Consultants

Ground Science South West Pty Ltd
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Accredited for compliance with ISO/IEC 17025 - Testing

NATA
WORLD RECOGNISED ACCREDITATION

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

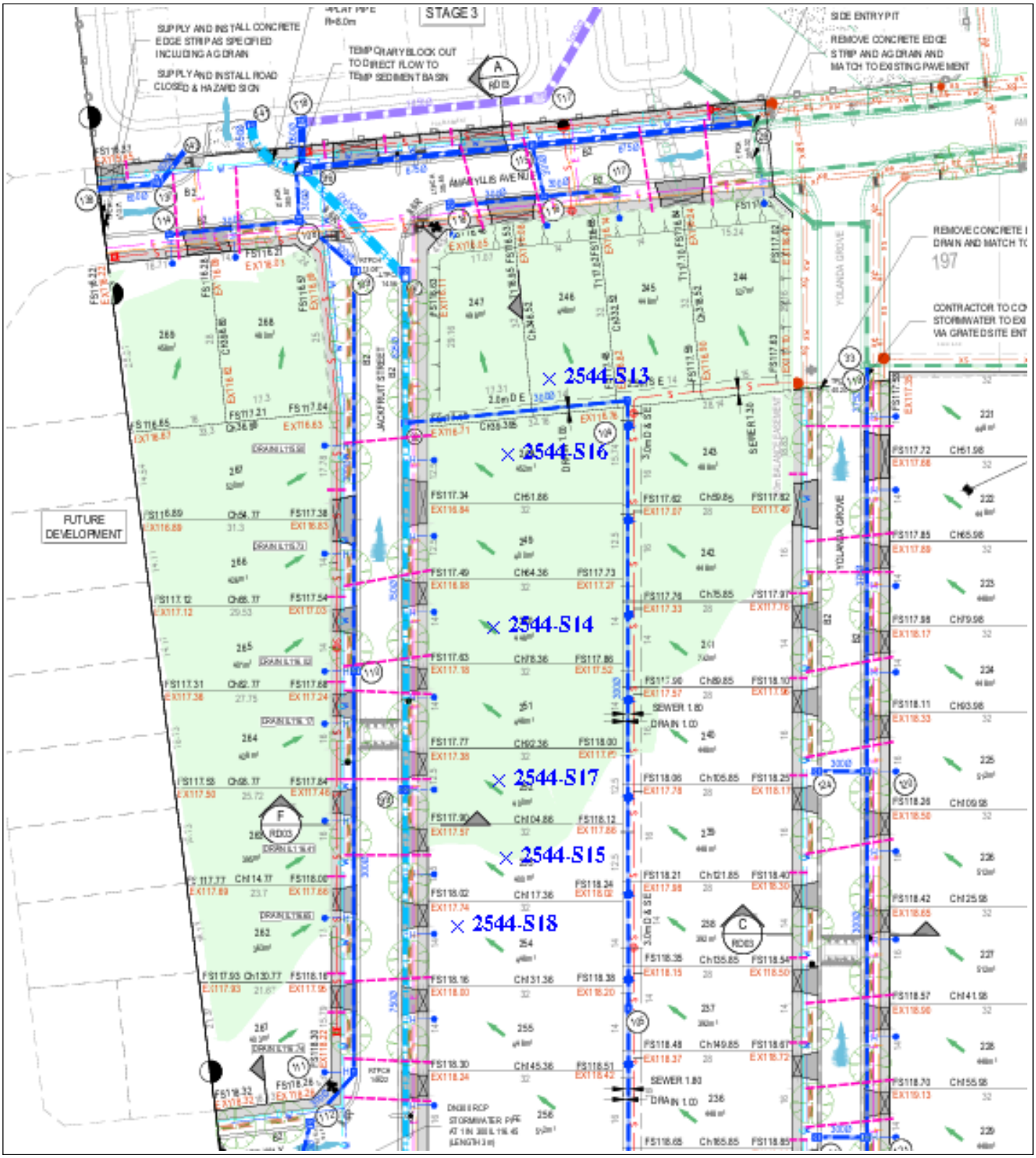
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	2544-S13	2544-S14	2544-S15	2544-S16	2544-S17	2544-S18
Date Tested	01/04/2025	01/04/2025	01/04/2025	01/04/2025	01/04/2025	01/04/2025
Time Tested	10:00	10:10	10:20	14:00	14:10	14:20
Test Request #/Location	Lot 246 Taken from Jackfruit Street	Lot 250 Taken from Jackfruit Street	Lot 253 Taken from Jackfruit Street	Lot 248 Taken from Jackfruit Street	Lot 252 Taken from Jackfruit Street	Lot 254 Taken from Jackfruit Street
Chainage (m)	37	68	110	42	95	118
Location Offset (m)	2m East from west boundary	8m East from front of lot	14m East from front of lot	14m East from front of lot	16m East from front of lot	4m East from front of lot
Layer / Reduced Level	600mm	600mm	600mm	FSL	FSL	FSL
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	gravelly CLAY, medium to high plasticity, red/brow	gravelly CLAY, medium to high plasticity, red/brow	gravelly CLAY, medium to high plasticity, red/brow	gravelly CLAY, medium to high plasticity, red/brow	gravelly CLAY, medium to high plasticity, red/brow	gravelly CLAY, medium to high plasticity, red/brow
Test Depth (mm)	275	275	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	6	2	11	4	6	5
Field Wet Density (FWD) t/m^3	1.83	1.82	1.85	1.86	1.84	1.84
Field Moisture Content %	23.3	22.1	16.6	19.6	20.3	20.3
Field Dry Density (FDD) t/m^3	1.48	1.49	1.59	1.56	1.53	1.52
Peak Converted Wet Density t/m^3	**	**	**	**	**	**
Adjusted Peak Converted Wet Density t/m^3	1.93	1.92	1.98	1.93	1.92	1.93
Moisture Variation (Wv) %	**	**	**	**	**	**
Adjusted Moisture Variation %	0.5	0.5	2.0	0.0	0.5	0.5
Hilf Density Ratio (%)	**95.0**	**95.0**	**93.5**	**96.5**	**95.5**	**95.0**
Compaction Method	**Standard**	**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



Material Test Report

Ground Science South West
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NATA
WORLD RECOGNISED ACCREDITATION

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

Report Number: **GSSW2544-5**
Issue Number: 1
Date Issued: 20/06/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)
50 Barry Road, Campbellfield Victoria 3061
Project Number: GSSW2544
Project Name: 352 PAYNES ROAD - STAGE 2 (LEVEL 1)
Project Location: THORNHILL PARK
Work Request: 23671
Dates Tested: 16/06/2025 - 19/06/2025
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
Site Selection: Selected by Client
Location: Stage 2
Material: CLAY, medium to high plasticity, red/brown
Material Source: Site Won Fill

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	2544-S19	2544-S20	2544-S21	2544-S22
Date Tested	16/06/2025	16/06/2025	16/06/2025	16/06/2025
Time Tested	09:02	09:08	09:15	09:28
Test Request #/Location	Lot 245	Lot 244	Lot 243	Lot 242
Easting	291185	291204	291202	291196
Northing	5821374	5821367	5821358	5821350
Layer / Reduced Level	FSL	FSL	FSL	FSL
Thickness of Layer (mm)	300	300	300	300
Soil Description	CLAY, medium to high plasticity, red	CLAY, medium to high plasticity, red	CLAY, medium to high plasticity, red	CLAY, medium to high plasticity, red
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 (%)	9	5	6	5
Field Wet Density (FWD) t/m^3	1.84	1.90	1.89	1.99
Field Moisture Content %	20.5	23.8	24.2	20.5
Field Dry Density (FDD) t/m^3	1.53	1.54	1.52	1.65
Peak Converted Wet Density t/m^3	**	**	**	**
Adjusted Peak Converted Wet Density t/m^3	1.93	1.94	1.91	1.90
Moisture Variation (Wv) %	**	**	**	**
Adjusted Moisture Variation %	3.0	1.0	1.5	3.0
Hilf Density Ratio (%)	**95.5**	**98.0**	**99.0**	**105.0**
Compaction Method	**Standard**	**Standard**	**Standard**	**Standard**
Remarks	**	**	**	**

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

Material Test Report

Report Number: **GSSW2544-5**
Issue Number: 1
Date Issued: 20/06/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)
50 Barry Road, Campbellfield Victoria 3061
Project Number: GSSW2544
Project Name: 352 PAYNES ROAD - STAGE 2 (LEVEL 1)
Project Location: THORNHILL PARK
Work Request: 23671
Dates Tested: 16/06/2025 - 19/06/2025
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
Site Selection: Selected by Client
Location: Stage 2
Material: CLAY, medium to high plasticity, red/brown
Material Source: Site Won Fill

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NATA
WORLD RECOGNISED ACCREDITATION

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

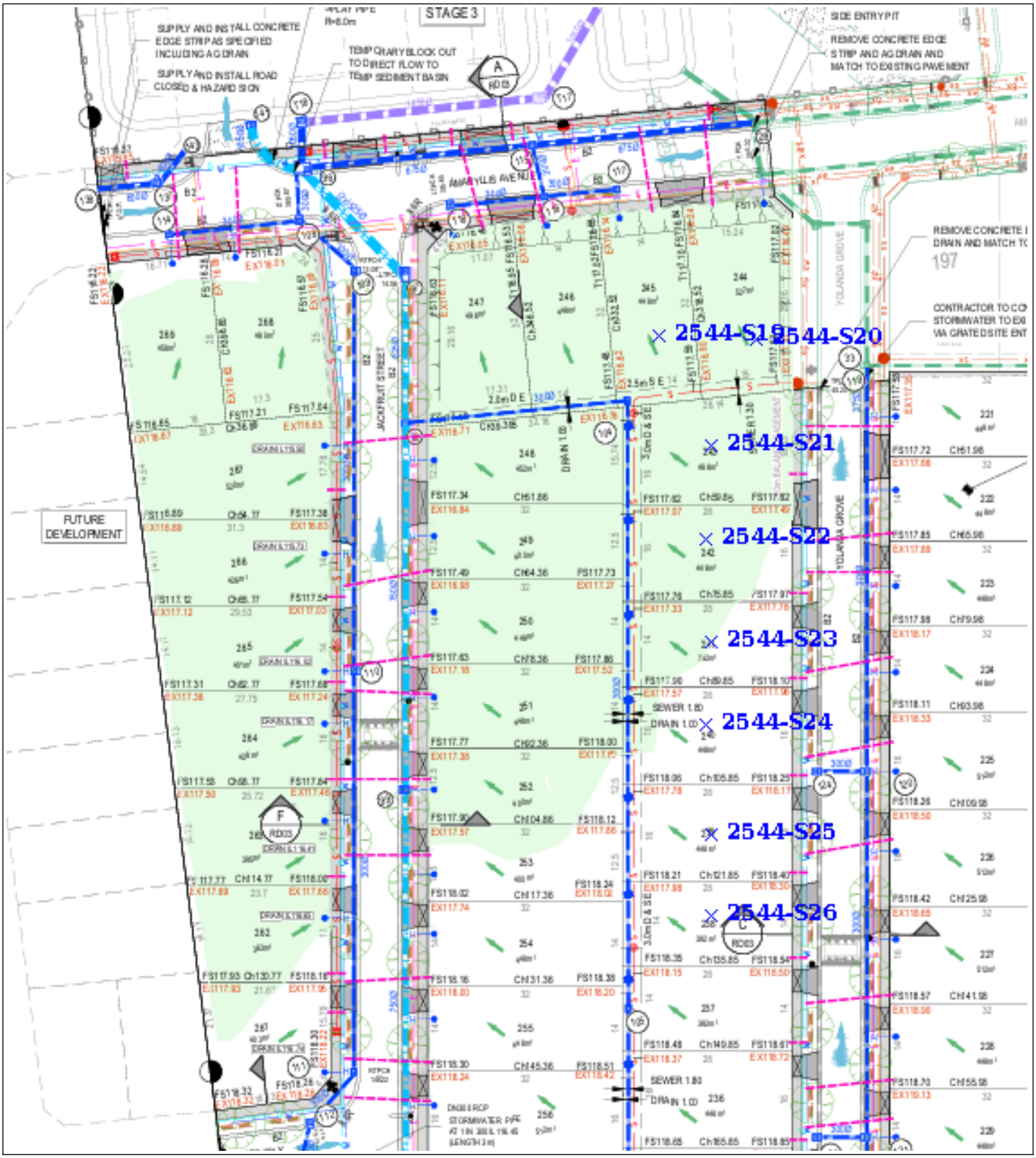
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	2544-S23	2544-S24	2544-S25	2544-S26
Date Tested	16/06/2025	16/06/2025	16/06/2025	16/06/2025
Time Tested	09:33	09:38	09:44	09:51
Test Request #/Location	Lot 241	Lot 240	Lot 239	Lot 238
Easting	291196	291194	291191	291190
Northing	5821322	5821313	5821291	5821279
Layer / Reduced Level	FSL	FSL	FSL	FSL
Thickness of Layer (mm)	300	300	300	300
Soil Description	CLAY, medium to high plasticity, red	CLAY, medium to high plasticity, red	CLAY, medium to high plasticity, red	CLAY, medium to high plasticity, red
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 (%)	1	4	9	4
Field Wet Density (FWD) t/m^3	1.91	1.91	1.92	1.92
Field Moisture Content %	26.6	24.2	22.9	22.9
Field Dry Density (FDD) t/m^3	1.51	1.54	1.56	1.57
Peak Converted Wet Density t/m^3	**	**	**	**
Adjusted Peak Converted Wet Density t/m^3	1.92	1.92	1.96	1.92
Moisture Variation (Wv) %	**	**	**	**
Adjusted Moisture Variation %	0.0	0.0	0.0	0.5
Hilf Density Ratio (%)	**99.5**	**99.5**	**98.0**	**100.0**
Compaction Method	**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



Material Test Report

Report Number: **GSSW2544-7**
Issue Number: 1
Date Issued: 22/08/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)
50 Barry Road, Campbellfield Victoria 3061
Project Number: GSSW2544
Project Name: 352 PAYNES ROAD - STAGE 2 (LEVEL 1)
Project Location: THORNHILL PARK
Work Request: 24379
Date Sampled: 19/08/2025 08:00
Dates Tested: 19/08/2025 - 21/08/2025
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
Site Selection: Selected by Client
Location: Stage 2
Material: gravelly CLAY, med-high plasticity, brown
Material Source: On site

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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	2544-S27	2544-S28	2544-S29	2544-S30	2544-S31
Date Tested	19/08/2025	19/08/2025	19/08/2025	19/08/2025	19/08/2025
Time Tested	09:00	09:10	09:20	09:30	09:40
Test Request #/Location	Lot 261	Lot 262	Lot 263	Lot 264	Lot 265
Easting	291102	291106	291108	291111	291113
Northing	5821271	5821282	5821296	5821309	5821324
Layer / Reduced Level	FSL	FSL	FSL	FSL	FSL
Thickness of Layer (mm)	200	200	200	200	200
Soil Description	gravelly CLAY, med-high plasticity, brown	gravelly CLAY, med-high plasticity, brown	gravelly CLAY, med-high plasticity, brown	gravelly CLAY, med-high plasticity, brown	gravelly CLAY, med-high plasticity, brown
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	6	5	12	5
Field Wet Density (FWD) t/m^3	1.97	1.97	1.94	1.97	1.95
Field Moisture Content %	22.2	22.8	20.7	21.8	20.2
Field Dry Density (FDD) t/m^3	1.61	1.60	1.61	1.62	1.62
Peak Converted Wet Density t/m^3	1.93	**	**	**	**
Adjusted Peak Converted Wet Density t/m^3	**	1.94	1.96	1.97	1.94
Moisture Variation (Wv) %	3.0	**	**	**	**
Adjusted Moisture Variation %	**	2.0	2.5	2.0	2.5
Hilf Density Ratio (%)	**102.0**	**102.0**	**99.0**	**100.0**	**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

Material Test Report

Report Number: **GSSW2544-7**
Issue Number: 1
Date Issued: 22/08/2025
Client: WINSLOW CONSTRUCTORS (CAMPBELLFIELD, VIC)
50 Barry Road, Campbellfield Victoria 3061
Project Number: GSSW2544
Project Name: 352 PAYNES ROAD - STAGE 2 (LEVEL 1)
Project Location: THORNHILL PARK
Work Request: 24379
Date Sampled: 19/08/2025 08:00
Dates Tested: 19/08/2025 - 21/08/2025
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
Site Selection: Selected by Client
Location: Stage 2
Material: gravelly CLAY, med-high plasticity, brown
Material Source: On site

C & T Geotechnical (South West)
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Phone: (03) 5282 1566
Email: Chrism@ctgeotechsw.com.au

Accredited for compliance with ISO/IEC 17025 - Testing

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	2544-S32	2544-S33	2544-S34	2544-S35	
Date Tested	19/08/2025	19/08/2025	19/08/2025	19/08/2025	
Time Tested	09:50	10:00	10:10	10:20	
Test Request #/Location	Lot 266	Lot 267	Lot 268	Lot 269	
Easting	291114	291117	291130	291120	
Northing	5821339	5821356	5821373	5821376	
Layer / Reduced Level	FSL	FSL	FSL	FSL	
Thickness of Layer (mm)	200	200	200	200	
Soil Description	gravelly CLAY, med-high plasticity, brown	gravelly CLAY, med-high plasticity, brown	gravelly CLAY, med-high plasticity, brown	gravelly CLAY, med-high plasticity, brown	
Test Depth (mm)	175	175	175	175	
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	
Percentage of Wet Oversize (%)	4	5	5	5	
Field Wet Density (FWD) t/m^3	1.97	1.96	1.95	1.93	
Field Moisture Content %	21.0	22.1	21.3	20.5	
Field Dry Density (FDD) t/m^3	1.63	1.61	1.61	1.60	
Peak Converted Wet Density t/m^3	**	**	**	**	
Adjusted Peak Converted Wet Density t/m^3	1.94	1.97	1.95	1.96	
Moisture Variation (Wv) %	**	**	**	**	
Adjusted Moisture Variation %	2.5	2.0	2.5	2.0	
Hilf Density Ratio (%)	**101.5**	**99.5**	**100.0**	**98.5**	
Compaction Method	**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