



LEVEL ONE EARTHWORKS REPORT

**Dawn Estate
Stages 6C1 & 6C2**

JULY 24 2023

Winslow

Authored by: QUALTEST LABORATORY PTY LTD

REF: 3973

Ref: 3973
Job: 23-058
Author: J Fowler



19th July 2023

Winslow,
Building 4 G1,
107 Miles Platting Road,
Eight Mile Plains Qld 4113.

ATTENTION: MR KIERAN HOY
Email: kieranh@ccawinslow.com.au

Dear Sir

**RE: LEVEL ONE EARTHWORKS REPORT
DAWN ESTATE 6C1 AND 6C2**

PROJECT: DAWN ESTATE STAGE 6C1 AND 6C2

CLIENT: WINSLOW

SUPERINTENDENT: CALIBRE

CONTRACTOR: WINSLOW

Revision	Date	Author	Reviewer	Description
0	19/07/2023	Josh Fowler	M. Morrison / D. Alazigha	Issued to Client

1.0 INTRODUCTION

1.1 General

This report presents results and documentation for the Level One Inspection and Testing of earthworks filling operations at Dawn Estate Stages 6C1 and 6C2 – Walloon (The Site).

Qualtest Laboratory Pty Ltd was commissioned by Winslow (The Client) to provide Level 1 Earthworks Inspection and Testing services as defined in Section 8 of AS3798.

Filling operations covered by this report were constructed between the 21st of February to the 21st of July 2023.

The purpose of the Level 1 commission, and this report, is to provide an opinion that the earthworks operations carried out by the Contractor have been carried out in accordance with AS3798, relevant project specifications and Local Authority requirements as appropriate.

This report has been carried out in general accordance with the following: -

- AS3798-2007 - Guidelines on Earthwork for Commercial and Residential Developments
- AS1289 – Testing of Soils for Engineering Purposes.
- AS2870-2011 – Residential Slabs and Footings.
- Ipswich City Council Requirements
- Calibre Drawings and Notes on Drawings.

This report does not cover underground services, pavements, retaining walls, or any other works after the 21st of July 2023.

2.0 THE DEVELOPMENT

The development comprises a 66-lot residential subdivision and associated infrastructure including pavements, stormwater, and sewer reticulation.

The earthworks generally comprised:

- Filling Lots and part of Lots 499 – 513;
- Filling Lots and part of Lots 514 – 532;
- Filling Lots and part of Lots 541 – 557; and
- Filling Lots and part of Lots 566 – 583.

Calibre Bulk Earthworks Layout Plan - Drawing 21-000113.03 - 1200 Rev. 3, indicates the approximate extent of earthworks filling to be constructed at the site. These plans are a reasonable indication of the actual extent of the fill constructed during our involvement.

The extent of earthworks covered by this report is presented as a marked-up Site Plan attached.

A Lot Disclosure Plan should be requested from the developer to confirm the actual depth of fill at the site.

Calibre Bulk Earthworks Layout Plan showing the extent of fill to be constructed at the development is presented in Figure 1.

The extent of fill covered by this report is presented as a marked-up Bulk Earthworks Plan presented in Figure 2.

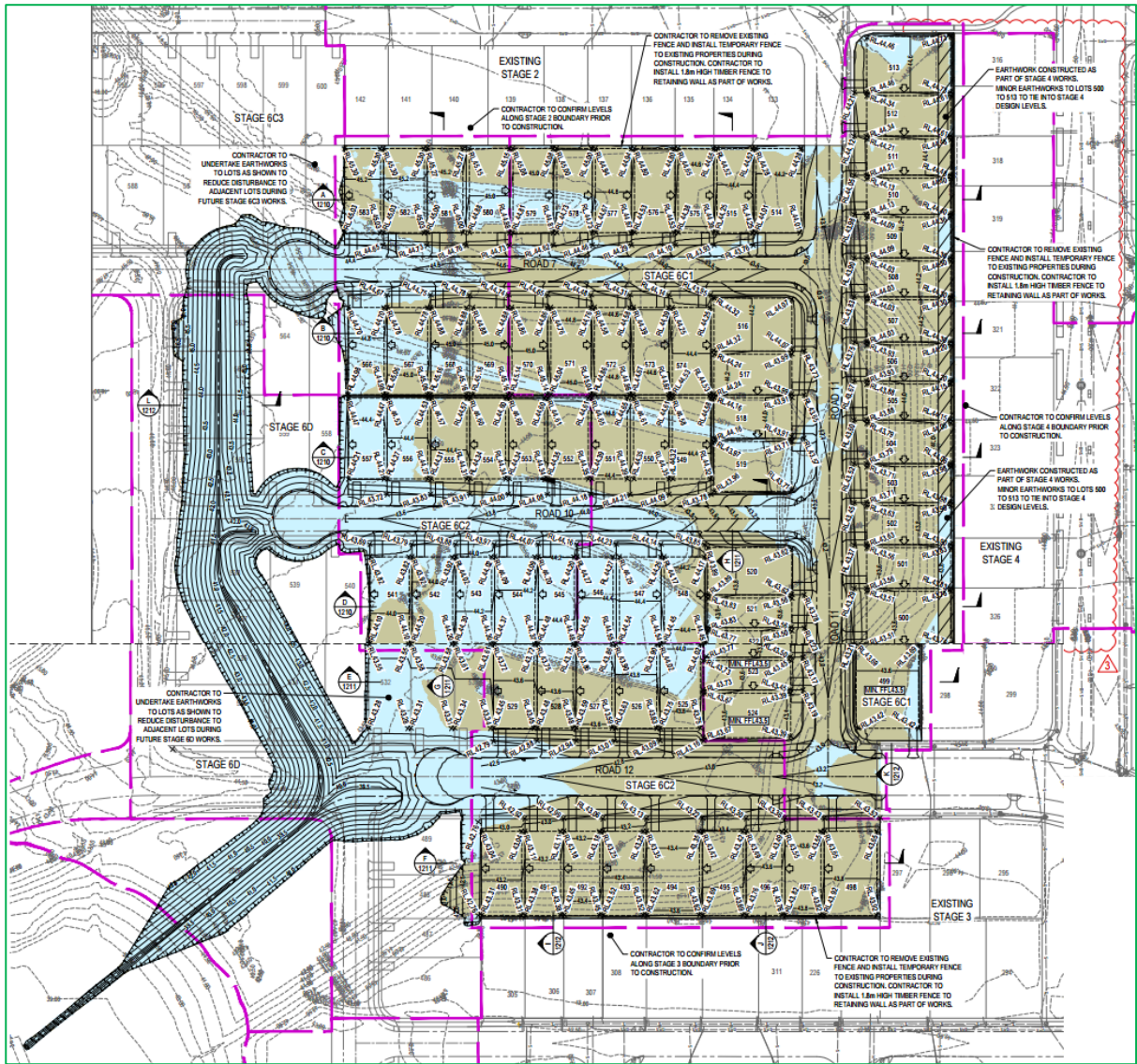


Figure 1: Site Layout Plan

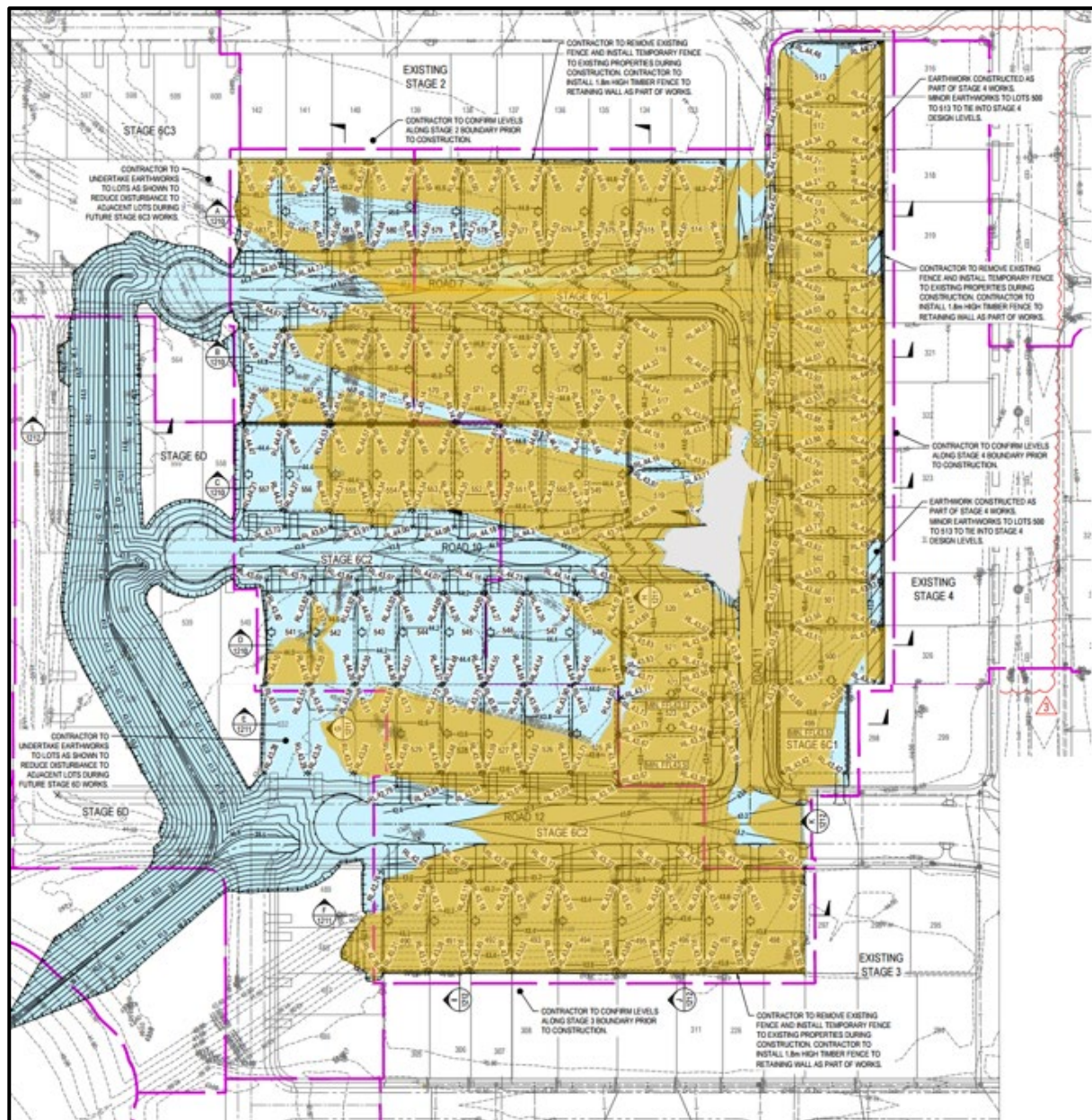


Figure 2: Extent of Fill Covered by This Report – Yellow Shade

3.0 WORKS AND SPECIFICATIONS

All filling operations at the Site are to be placed and compacted in accordance with the following: -

- AS3798 – Type 2 Earthworks Operations;
- Ipswich City Council Specifications;
- Notes on Calibre; and
- Density Ratio – 95% Standard.

3.1 Existing Fill

As far as Qualtest was made aware and what could reasonably be assessed onsite, no existing filling has been carried out at this site prior to our involvement.

3.2 Fill Foundation

Areas to be filled at the site were observed to be stripped of grass and topsoil to depths exposing competent natural ground.

Compliance with the fill foundation and approval to commence filling were on the basis of:

- Adequate removal of topsoil and organics; and
- Compliant proof roll testing of the stripped surface using an onsite heavy earthworks plant.

A picture of the stripped surface prior to filling is presented in Figure 3.



Figure 3: View of the Stripped Surface on Stage 6B1 & 6B2

3.1 Filling Operations

Fill at the site was sourced from cuts on Stage 6B 2-3.

Materials used as fill can be broadly summarised as:

- Silty CLAY (CH), high plasticity, brown and moist.

Fill was constructed using the following plant: -

- Pad Foot Compactor
- Cat 815F Compactor
- Excavators
- Cat D6 Dozer
- Articulated Sump Trucks
- Water Carts

A picture of the filling operations is presented in Figure 4.



Figure 4: View of Filling Operations

Fill was observed to be placed in layers within the capacity of the above plants and compacted using several passes (at least 8 up and back).

To the extent that was reasonably practicable, fill materials visibly containing excessive amounts of silts or deleterious materials such as sticks, and oversize particles were sorted to remove the contaminants prior to placement or rejected for use. Some cobble-sized particles may remain in the body of the fill, however, are unlikely to be in sufficient quantities to adversely affect the performance of the new fill. Sloping areas requiring filling were benched and continually keyed into the slope prior to and during fill placement.

3.2 Compaction Testing

Compaction testing was carried out on the placed and compacted fill materials in accordance with Tables 5.1 and 8.1 of AS3798 and tested to AS1289 test methods. All test locations were selected by Qualtest at random and staggered over the fill area and depth. Test locations were not obtained by survey and on this basis, the locations should be considered as approximate only.

Compaction testing achieved the minimum required compaction specification of 95% Standard at the test locations. Areas where the compaction specification was not achieved, were reworked and re-tested using random stratified location processes.

The location of the compaction tests and area of fill covered under this report are shown on the Site Plan contained in Appendix A.

Compaction test reports are contained in Appendix B.

4.0 STATEMENT OF COMPLIANCE

Our representatives observed the relevant earthworks operations during our engagement including the stripped surface, new fill placement and compaction operations, and compaction testing.

As far as Qualtest could assess, the fill at The Site has been observed to be placed and compacted in accordance with the requirements outlined in Section 2.0.

The fill at The Site can be "Controlled" as defined in AS2870.

5.0 EXCLUSIONS

The compliance statement specifically excludes any topsoil, which may be placed for use as Lot dressing or any other subsequent earthworks after 21st July 2023. All trench backfill, landscaping fill and other fill placed without our knowledge are also excluded.

Assessments of batter stability, global stability, and material quality such as soaked CBR and site classifications are excluded from this commission. The stability of any fill batters in the long term must take account of the variable materials used for the construction of the fill platforms and all surface loads including traffic loads near the crest of all batters.

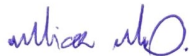
Our on-site attendance specifically excludes assessments of fill material quality and engineering properties that are outside the requirements of AS.3798 - 2007, including soil or fill reactivity and soaked CBR values. We note that the fill materials comprise clay soils, which may result in unfavourable site classifications for individual lots and low subgrade design strengths for pavements.

Footings and ground slabs for any structures constructed over natural soils or controlled fill should be designed to accommodate the characteristic ground surface movements and settlement potential. Assessments of these design parameters are beyond the scope of this Report.

Controlled-fill (Level 1 Fill) provides an overview that the Earthwork Specification has been met. There are instances where significant long-term settlements of controlled fill can occur. Large total and differential settlements can be expected where fill has been placed over soft and compressible soils and where the thickness of controlled fill varies significantly across a lot.

Should you require further information regarding the above please do not hesitate to contact this office.

Yours faithfully,



MICHAEL MORRISON

For and on behalf of

QUALTEST LABORATORY PTY LTD.



DENNIS ALAZIGHA, RPEQ 22169

Appendix A – Site Plan with Test Locations

Appendix B – Compaction Test Certificates

APPENDIX A

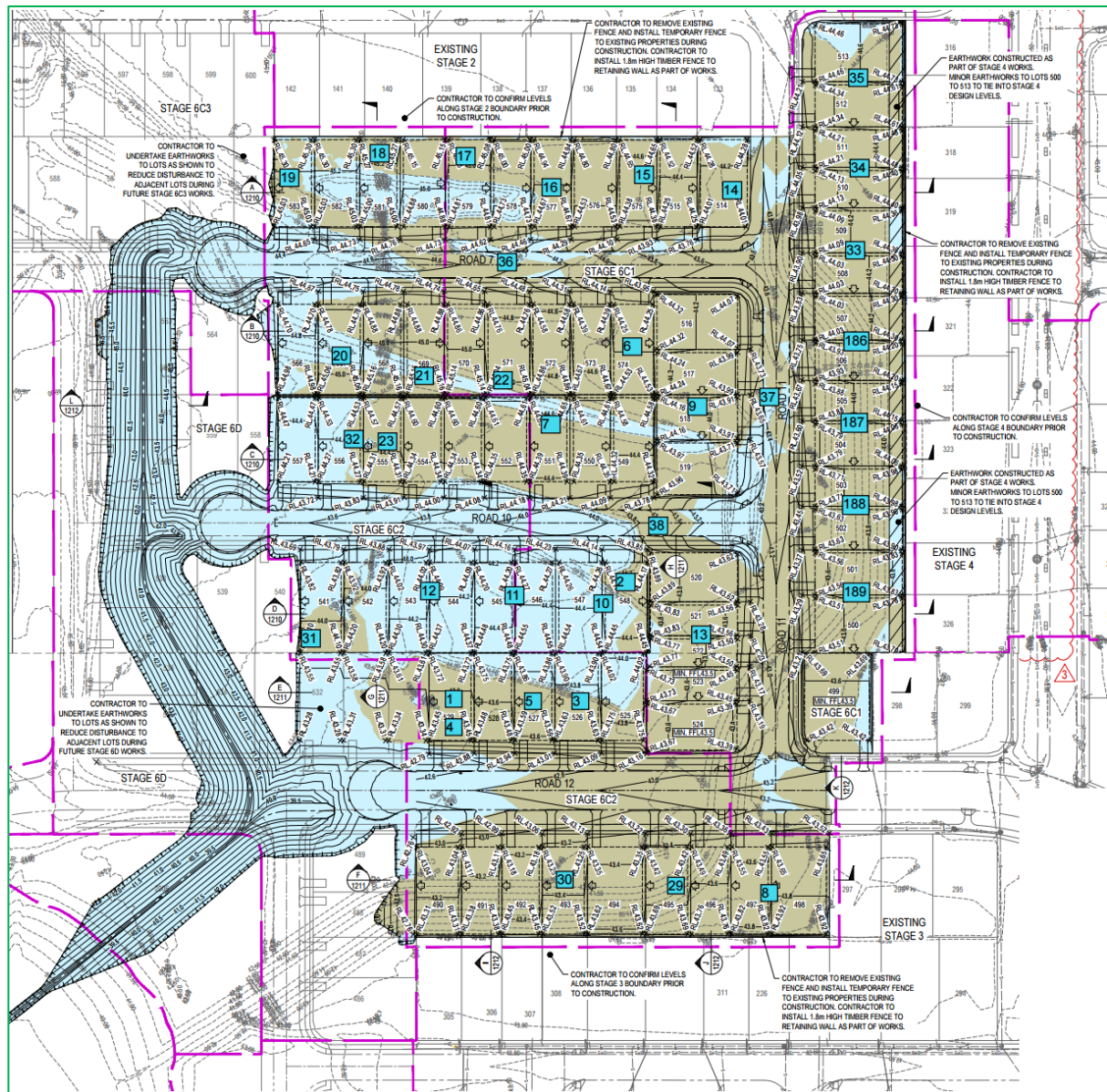
Site Plan and Compaction Test Locations



Qualtest Laboratory
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APPENDIX A

Site Plan and Test Locations





APPENDIX B

COMPACTION TEST REPORTS

Material Test Report

Report Number: 23-058-1
Issue Number: 1
Date Issued: 07/03/2023
Client: CCA WINSLOW PTY LTD
 1587 IPSWICH ROAD, ROCKLEA QLD 4106
Contact: HAYDN LANE
Project Number: 23-058
Project Name: RESIDENTIAL SUBDIVISION
Project Location: DAWN ESTATE - STAGES 6C1 & 6C2, WALLOON
Client Reference: 58544
Work Request: 4582
Date Sampled: 21/02/2023
Dates Tested: 21/02/2023 - 28/02/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Dawn Estate Stage 6C1 & 2
Material: General Fill
Material Source: On-site



Qualtest Laboratory Pty Ltd
 Qualtest Laboratory Pty Limited
 2 / 40 Boyland Ave Cooper Plains QLD 4108
 Phone: 0417 011 515
 Email: rhys@qualtestgeo.com

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Rhys Mitchell
 Field Technician
 NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	S4582A	S4582B	S4582C
Test Number	1	2	3
Date Tested	21/02/2023	21/02/2023	21/02/2023
Time Tested	10:00	10:05	10:10
Test Request #/Location	General Fill Lot 529	General Fill Lot 548	General Fill Lot 526
Easting	8m Off North Boundary	3m Off North Boundary	7m Off East Boundary
Northing	6m Off East Boundary	3m Off East Boundary	5m Off South Boundary
Layer / Reduced Level	1.5m Below F/L	1m Below F/L	0.5m Below F/L
Thickness of Layer (mm)	200	200	200
Soil Description	Silty CLAY	Silty CLAY	Silty CLAY
Test Depth (mm)	175	175	175
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0
Field Wet Density (FWD) t/m ³	1.91	1.96	1.93
Field Moisture Content %	17.3	15.6	14.8
Field Dry Density (FDD) t/m ³	1.63	1.69	1.68
Peak Converted Wet Density t/m ³	1.95	1.98	1.97
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.0	0.0	0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	98.0	99.0	98.0
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

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

Material Test Report

Report Number: 23-058-2
Issue Number: 1
Date Issued: 07/03/2023
Client: CCA WINSLOW PTY LTD
 1587 IPSWICH ROAD, ROCKLEA QLD 4106
Contact: HAYDN LANE
Project Number: 23-058
Project Name: RESIDENTIAL SUBDIVISION
Project Location: DAWN ESTATE - STAGES 6C1 & 6C2, WALLOON
Client Reference: 58544
Work Request: 4654
Date Sampled: 27/02/2023
Dates Tested: 27/02/2023 - 02/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Dawn Estate Stage 6C1
Material: General Fill (Basin)
Material Source: On-site



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 2 / 40 Boyland Ave Cooper Plains QLD 4108
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Approved Signatory: Rhys Mitchell
 Field Technician
 NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	S4654A	S4654B	S4654C
Test Number	6	7	8
Date Tested	27/02/2023	27/02/2023	27/02/2023
Time Tested	07:30	07:35	10:10
Test Request #/Location	General Fill Lot 574	General Fill Lot 551	General Fill Lot 497/498
Easting	4m Off North Boundary	3m Off North Boundary	Boundary Of lots 497/498
Northing	7m Off East Boundary	8m Off East Boundary	10m Off North Boundary
Layer / Reduced Level	1m Below F/L	1.1m Below F/L	Finish Level
Thickness of Layer (mm)	200	200	200
Soil Description	Silty CLAY	Silty CLAY	Silty CLAY
Test Depth (mm)	175	175	175
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0
Field Wet Density (FWD) t/m ³	2.00	1.98	2.02
Field Moisture Content %	18.9	13.8	18.0
Field Dry Density (FDD) t/m ³	1.68	1.74	1.71
Peak Converted Wet Density t/m ³	1.96	1.93	2.04
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	3.0	2.5	0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	102.0	102.0	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

Material Test Report

Report Number: 23-058-3
Issue Number: 1
Date Issued: 07/03/2023
Client: CCA WINSLOW PTY LTD
 1587 IPSWICH ROAD, ROCKLEA QLD 4106
Contact: HAYDN LANE
Project Number: 23-058
Project Name: RESIDENTIAL SUBDIVISION
Project Location: DAWN ESTATE - STAGES 6C1 & 6C2, WALLOON
Client Reference: 58544
Work Request: 4644
Date Sampled: 24/02/2023
Dates Tested: 24/02/2023 - 28/02/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Dawn Estate Stages 6C1 & 2
Material: General Fill
Material Source: On-site



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 2 / 40 Boyland Ave Cooper Plains QLD 4108
 Phone: 0417 011 515
 Email: rhys@qualtestgeo.com



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Approved Signatory: Rhys Mitchell
 Field Technician
 NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	S4644A	S4644B	
Test Number	4	5	
Date Tested	24/02/2023	24/02/2023	
Time Tested	10:00	10:10	
Test Request #/Location	General Fill 529	General Fill 527	
Easting	4m Off South Boundary	12m Off North Boundary	
Northing	4m Off East Boundary	6m Off West Boundary	
Layer / Reduced Level	Finish Level	Finish Level	
Thickness of Layer (mm)	200	200	
Soil Description	Silty CLAY	Silty CLAY	
Test Depth (mm)	175	175	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0	0	
Field Wet Density (FWD) t/m ³	2.12	2.06	
Field Moisture Content %	14.5	17.7	
Field Dry Density (FDD) t/m ³	1.85	1.75	
Peak Converted Wet Density t/m ³	2.08	2.03	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Moisture Variation (Wv) %	2.5	0.5	
Adjusted Moisture Variation %	**	**	
Hilf Density Ratio (%)	101.5	101.5	
Compaction Method	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: 23-058-5
Issue Number: 1
Date Issued: 14/03/2023
Client: CCA WINSLOW PTY LTD
1587 IPSWICH ROAD, ROCKLEA QLD 4106
Contact: HAYDN LANE
Project Number: 23-058
Project Name: RESIDENTIAL SUBDIVISION
Project Location: DAWN ESTATE - STAGES 6C1 & 6C2, WALLOON
Client Reference: 58544
Work Request: 4696
Date Sampled: 28/02/2023
Dates Tested: 28/02/2023 - 08/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Dawn Estate Stage 6C1
Material: General Fill
Material Source: On-site



Qualtest Laboratory Pty Ltd
Qualtest Laboratory Pty Limited
2 / 40 Boyland Ave Cooper Plains QLD 4108
Phone: 0417 011 515
Email: greg@qualtestgeo.com

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Approved Signatory: Greg Gibson
ql-greg

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

Sample Number	S4696A		
Test Number	9		
Date Tested	28/02/2023		
Time Tested	01:25		
Test Request #/Location	General Fill Lot 518		
Easting	6m Off North Boundary		
Northing	8m Off East Boundary		
Layer / Reduced Level	0.5m Below F/L		
Thickness of Layer (mm)	200		
Soil Description	Silty CLAY		
Test Depth (mm)	175		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0		
Field Wet Density (FWD) t/m ³	1.93		
Field Moisture Content %	3.0		
Field Dry Density (FDD) t/m ³	1.88		
Peak Converted Wet Density t/m ³	1.92		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	0.5		
Adjusted Moisture Variation %	**		
Hilf Density Ratio (%)	100.5		
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: 23-058-6
Issue Number: 1
Date Issued: 14/03/2023
Client: CCA WINSLOW PTY LTD
1587 IPSWICH ROAD, ROCKLEA QLD 4106
Contact: HAYDN LANE
Project Number: 23-058
Project Name: RESIDENTIAL SUBDIVISION
Project Location: DAWN ESTATE - STAGES 6C1 & 6C2, WALLOON
Client Reference: 58544
Work Request: 4764
Date Sampled: 03/03/2023
Dates Tested: 03/03/2023 - 06/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Dawn Estate Stage 6C1 & 2 (Lot Fill)
Material: General Fill
Material Source: On-site



Qualtest Laboratory Pty Ltd
Qualtest Laboratory Pty Limited
2 / 40 Boyland Ave Cooper Plains QLD 4108
Phone: 0417 011 515
Email: greg@qualtestgeo.com

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Greg Gibson
ql-greg

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	S4764A	S4764B	S4764C
Test Number	10	11	12
Date Tested	03/03/2023	03/03/2023	03/03/2023
Time Tested	10:00	10:05	10:10
Test Request #/Location	General Fill Lot 547/548	General Fill Lot 545/546	General Fill Lot 543/544
Easting	5m Off South Boundary	5m Off South Boundary	5m Off South Boundary
Northing	Boundary 547/548	Boundary 545/546	Boundary 543/544
Layer / Reduced Level	Finish Level	Finish Level	Finish Level
Thickness of Layer (mm)	200	200	200
Soil Description	Silty CLAY	Silty CLAY	Silty CLAY
Test Depth (mm)	175	175	175
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0
Field Wet Density (FWD) t/m ³	1.94	1.91	2.05
Field Moisture Content %	23.2	22.4	17.7
Field Dry Density (FDD) t/m ³	1.57	1.56	1.74
Peak Converted Wet Density t/m ³	1.97	1.92	2.04
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.5	0.5	0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	98.5	99.5	100.5
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: 23-058-7
Issue Number: 1
Date Issued: 20/03/2023
Client: CCA WINSLOW PTY LTD
 1587 IPSWICH ROAD, ROCKLEA QLD 4106
Contact: HAYDN LANE
Project Number: 23-058
Project Name: RESIDENTIAL SUBDIVISION
Project Location: DAWN ESTATE - STAGES 6C1 & 6C2, WALLOON
Client Reference: 58544
Work Request: 4837
Date Sampled: 09/03/2023
Dates Tested: 09/03/2023 - 10/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Dawn Estate Stage 6C
Material: General Fill
Material Source: Onsite



Qualtest Laboratory Pty Ltd
 Qualtest Laboratory Pty Limited
 2 / 40 Boyland Ave Cooper Plains QLD 4108
 Phone: 0417 011 515
 Email: greg@qualtestgeo.com

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Approved Signatory: Greg Gibson
 ql-greg

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	S4837A	S4837B	S4837C	S4837D
Test Number	13	14	15	16
Date Tested	09/03/2023	09/03/2023	09/03/2023	09/03/2023
Time Tested	08:50	10:00	10:05	10:10
Test Request #/Location	General Fill Lot 521/522	General Fill Lot 514	General Fill Lot 575	General Fill Lot 577
Easting	Common Boundary 521/522	9m Off North Boundary	7m Off West Boundary	8m Off North Boundary
Northing	6m Off East Boundary	7m Off East Boundary	10m Off South Boundary	6m Off East Boundary
Layer / Reduced Level	Finish Level	Finish Level	Finish Level	Finish Level
Thickness of Layer (mm)	200	200	200	200
Soil Description	Silty CLAY	Silty CLAY	Silty CLAY	Silty CLAY
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 (%)	0	0	0	0
Field Wet Density (FWD) t/m ³	1.98	1.98	1.99	2.00
Field Moisture Content %	21.3	24.9	24.2	24.1
Field Dry Density (FDD) t/m ³	1.63	1.58	1.60	1.61
Peak Converted Wet Density t/m ³	1.95	1.98	2.00	2.00
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**
Moisture Variation (Wv) %	0.5	0.5	0.5	0.5
Adjusted Moisture Variation %	**	**	**	**
Hilf Density Ratio (%)	101.5	100.0	99.0	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

Material Test Report

Report Number: 23-058-7
Issue Number: 1
Date Issued: 20/03/2023
Client: CCA WINSLOW PTY LTD
 1587 IPSWICH ROAD, ROCKLEA QLD 4106
Contact: HAYDN LANE
Project Number: 23-058
Project Name: RESIDENTIAL SUBDIVISION
Project Location: DAWN ESTATE - STAGES 6C1 & 6C2, WALLOON
Client Reference: 58544
Work Request: 4837
Date Sampled: 09/03/2023
Dates Tested: 09/03/2023 - 10/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Dawn Estate Stage 6C
Material: General Fill
Material Source: Onsite



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 Phone: 0417 011 515
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Greg Gibson

Approved Signatory: Greg Gibson
 ql-greg

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	S4837E	S4837F	S4837G	
Test Number	17	18	19	
Date Tested	09/03/2023	09/03/2023	09/03/2023	
Time Tested	10:15	13:00	13:10	
Test Request #/Location	General Fill Lot 579	General Fill Lot 581	General Fill Lot 583	
Easting	6m Off North Boundary	4m Off North Boundary	11m Off North Boundary	
Northing	6m Off West Boundary	4m Off West Boundary	4m Off West Boundary	
Layer / Reduced Level	Finish Level	Finish Level	Finish Level	
Thickness of Layer (mm)	200	200	200	
Soil Description	Silty CLAY	Silty CLAY	Silty CLAY	
Test Depth (mm)	175	175	175	
Sieve used to determine oversize (mm)	19.0	19.0	19.0	
Percentage of Wet Oversize (%)	0	0	0	
Field Wet Density (FWD) t/m ³	2.00	2.00	1.98	
Field Moisture Content %	23.5	23.9	23.8	
Field Dry Density (FDD) t/m ³	1.62	1.61	1.59	
Peak Converted Wet Density t/m ³	2.03	2.05	1.97	
Adjusted Peak Converted Wet Density t/m ³	**	**	**	
Moisture Variation (Wv) %	0.5	0.0	0.5	
Adjusted Moisture Variation %	**	**	**	
Hilf Density Ratio (%)	98.0	97.5	100.5	
Compaction Method	Standard	Standard	Standard	
Report Remarks	**	**	**	

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: 23-058-8
Issue Number: 1
Date Issued: 23/03/2023
Client: CCA WINSLOW PTY LTD
 1587 IPSWICH ROAD, ROCKLEA QLD 4106
Contact: HAYDN LANE
Project Number: 23-058
Project Name: RESIDENTIAL SUBDIVISION
Project Location: DAWN ESTATE - STAGES 6C1 & 6C2, WALLOON
Client Reference: 58544
Work Request: 4911
Date Sampled: 14/03/2023
Dates Tested: 14/03/2023 - 16/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Dawn Estate Stage 6C, Walloon
Material: General Fill
Material Source: On-site



Qualtest Laboratory Pty Ltd
 Qualtest Laboratory Pty Limited
 2 / 40 Boyland Ave Cooper Plains QLD 4108
 Phone: 0417 011 515
 Email: rhys@qualtestgeo.com

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Approved Signatory: Rhys Mitchell
 Field Technician

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	S4911A	S4911B	S4911C	S4911D
Test Number	20	21	22	23
Date Tested	14/03/2023	14/03/2023	14/03/2023	14/03/2023
Time Tested	10:00	10:10	13:00	13:05
Test Request #/Location	General Fill Lot 567	General Fill Lot 569	General Fill Lot 571	General Fill Lot 555
Easting	3m Off North Boundary	10m Off North Boundary	7m Off North Boundary	11m Off North Boundary
Northing	6m Off East Boundary	5m Off West Boundary	7m Off East Boundary	6m Off West Boundary
Layer / Reduced Level	0.4m Below F/L	0.4m Below F/L	0.3m Below F/L	0.2m Below F/L
Thickness of Layer (mm)	200	200	200	200
Soil Description	Silty CLAY	Silty CLAY	Silty CLAY	Silty CLAY
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 (%)	0	0	0	0
Field Wet Density (FWD) t/m ³	1.96	1.96	1.94	1.95
Field Moisture Content %	19.5	18.1	19.5	18.0
Field Dry Density (FDD) t/m ³	1.64	1.66	1.62	1.65
Peak Converted Wet Density t/m ³	1.96	1.99	1.98	1.96
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**
Moisture Variation (Wv) %	0.5	0.5	0.5	0.5
Adjusted Moisture Variation %	**	**	**	**
Hilf Density Ratio (%)	100.0	98.5	98.0	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

Material Test Report

Report Number: 23-058-10
Issue Number: 1
Date Issued: 23/04/2023
Client: CCA WINSLOW PTY LTD
 1587 IPSWICH ROAD, ROCKLEA QLD 4106
Contact: HAYDN LANE
Project Number: 23-058
Project Name: RESIDENTIAL SUBDIVISION
Project Location: DAWN ESTATE - STAGES 6C1 & 6C2, WALLOON
Client Reference: 58544
Work Request: 5438
Date Sampled: 19/04/2023
Dates Tested: 19/04/2023 - 20/04/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Dawn Estate Stage 6C, Walloon
Material: General Fill
Material Source: On-site



Qualtest Laboratory Pty Ltd
 Qualtest Laboratory Pty Limited
 2 / 40 Boyland Ave Cooper Plains QLD 4108
 Phone: 0417 011 515
 Email: greg@qualtestgeo.com

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Approved Signatory: Greg Gibson
 ql-greg

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	S5438A	S5438B	S5438C	S5438D
Test Number	29	30	31	32
Date Tested	19/04/2023	19/04/2023	19/04/2023	19/04/2023
Time Tested	12:50	12:55	13:00	13:05
Test Request #/Location	General Fill Lot 495	General Fill Lot 493	General Fill Lot 541	General Fill Lot 556
Easting	11m Off North Boundary	7m Off North Boundary	6m Off South Boundary	11m Off North Boundary
Northing	5m Off East Boundary	8m Off West Boundary	5m Off West Boundary	3m Off East Boundary
Layer / Reduced Level	Finish Level	Finish Level	Finish Level	Finish Level
Thickness of Layer (mm)	200	200	200	200
Soil Description	Silty CLAY	Silty CLAY	Silty CLAY	Silty CLAY
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 (%)	0	0	0	0
Field Wet Density (FWD) t/m ³	2.01	2.01	2.02	2.02
Field Moisture Content %	21.9	21.6	19.1	20.8
Field Dry Density (FDD) t/m ³	1.65	1.65	1.69	1.68
Peak Converted Wet Density t/m ³	2.04	2.03	2.05	2.05
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**
Moisture Variation (Wv) %	0.0	0.5	0.5	0.5
Adjusted Moisture Variation %	**	**	**	**
Hilf Density Ratio (%)	98.5	99.0	98.5	99.0
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

Material Test Report

Report Number: 23-058-16
Issue Number: 1
Date Issued: 19/05/2023
Client: CCA WINSLOW PTY LTD
 1587 IPSWICH ROAD, ROCKLEA QLD 4106
Contact: HAYDN LANE
Project Number: 23-058
Project Name: RESIDENTIAL SUBDIVISION
Project Location: DAWN ESTATE - STAGES 6C1 & 6C2, WALLOON
Client Reference: 58544
Work Request: 5616
Date Sampled: 04/05/2023
Dates Tested: 04/05/2023 - 09/05/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Dawn Estate Stage 6C
Material: General Fill
Material Source: On-site



Qualtest Laboratory Pty Ltd
 Qualtest Laboratory Pty Limited
 2 / 40 Boyland Ave Cooper Plains QLD 4108
 Phone: 0417 011 515
 Email: greg@qualtestgeo.com

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Greg Gibson

Approved Signatory: Greg Gibson
 ql-greg

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	S5616A	S5616B	S5616C
Test Number	33	34	35
Date Tested	04/05/2023	04/05/2023	04/05/2023
Time Tested	10:00	10:10	10:15
Test Request #/Location	General Fill Lot Boundaries 508/509	General Fill Lot Boundaries 510/511	General Fill Lot Boundaries 512/513
Easting	Boundary Line 508/509	Boundary Line 510/511	Boundary Line 512/513
Northing	6m Off East Boundary Line	10m Off East Boundary Line	7m Off East Boundary Line
Layer / Reduced Level	Finish Level	Finish Level	Finish Level
Thickness of Layer (mm)	200	200	200
Soil Description	Silty CLAY	Silty CLAY	Silty CLAY
Test Depth (mm)	175	175	175
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0
Field Wet Density (FWD) t/m ³	1.96	2.00	2.01
Field Moisture Content %	19.7	18.8	18.7
Field Dry Density (FDD) t/m ³	1.64	1.68	1.69
Peak Converted Wet Density t/m ³	1.99	2.05	2.04
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.5	1.0	1.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	98.5	97.5	98.5
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: 23-058-17
Issue Number: 1
Date Issued: 19/05/2023
Client: CCA WINSLOW PTY LTD
1587 IPSWICH ROAD, ROCKLEA QLD 4106
Contact: HAYDN LANE
Project Number: 23-058
Project Name: RESIDENTIAL SUBDIVISION
Project Location: DAWN ESTATE - STAGES 6C1 & 6C2, WALLOON
Client Reference: 58544
Work Request: 5665
Date Sampled: 08/05/2023
Dates Tested: 08/05/2023 - 09/05/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Dawn Estate Stage 6C
Material: General Fill
Material Source: On-site



Qualtest Laboratory Pty Ltd
Qualtest Laboratory Pty Limited
2 / 40 Boyland Ave Cooper Plains QLD 4108
Phone: 0417 011 515
Email: greg@qualtestgeo.com

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Approved Signatory: Greg Gibson
ql-greg

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	S5665A	S5665B	S5665C
Test Number	36	37	38
Date Tested	08/05/2023	08/05/2023	08/05/2023
Time Tested	10:00	10:05	10:10
Test Request #/Location	General Fill Road 7	General Fill Road 11	General Fill Road 10
Chainage (m)	80	120	40
Location Offset (m)	1m Right from CL	0.5m Right from CL	1.5m Left from LEL
Layer / Reduced Level	Finish Layer	Finish Layer	Finish Layer
Thickness of Layer (mm)	200	200	200
Soil Description	Silty CLAY	Silty CLAY	Silty CLAY
Test Depth (mm)	175	175	175
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0
Field Wet Density (FWD) t/m ³	1.86	1.91	1.92
Field Moisture Content %	19.8	19.5	19.7
Field Dry Density (FDD) t/m ³	1.56	1.60	1.60
Peak Converted Wet Density t/m ³	1.94	1.99	2.00
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.5	0.5	0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	96.0	96.5	95.5
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: 23-058-44
Issue Number: 1
Date Issued: 24/07/2023
Client: WINSLOW PTY LTD
 1587 IPSWICH ROAD, ROCKLEA QLD 4106
Contact: HAYDN LANE
Project Number: 23-058
Project Name: RESIDENTIAL SUBDIVISION
Project Location: DAWN ESTATE - STAGES 6C1 & 6C2, WALLOON
Client Reference: 58544
Work Request: 6712
Date Sampled: 21/07/2023
Dates Tested: 21/07/2023 - 24/07/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Dawn 6C, Walloon (Lot Fill)
Material: Allotment Fill
Material Source: On-site



Qualtest Laboratory Pty Ltd
 Brisbane Laboratory
 2 / 40 Boyland Ave Cooper Plains QLD 4108
 Phone: 0417 011 515
 Email: mick@qualtestgeo.com

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Approved Signatory: Mick Morrison

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	S6712A	S6712B	S6712C	S6712D
Test Number	186	187	188	189
Date Tested	21/07/2023	21/07/2023	21/07/2023	21/07/2023
Time Tested	10:15	10:20	10:30	10:35
Test Request #/Location	Allotment Fill Common Boundary	Allotment Fill Common Boundary	Allotment Fill Common Boundary	Allotment Fill Common Boundary
Easting	506 - 507	504 - 505	502 - 503	500 - 501
Northing	6m Off East Boundary n	8m Off East Boundary	6m Off East Boundary	9m Off East Boundary
Layer / Reduced Level	Finish Level	Finish Level	Finish Level	Finish Level
Soil Description	Silty CLAY	Silty CLAY	Silty CLAY	Silty CLAY
Test Depth (mm)	150	150	150	150
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0
Field Wet Density (FWD) t/m ³	1.92	1.94	1.88	1.89
Field Moisture Content %	**	**	**	**
Field Dry Density (FDD) t/m ³	**	**	**	**
Peak Converted Wet Density t/m ³	1.87	1.90	1.88	1.82
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**
Moisture Variation (Wv) %	4.0	5.0	3.0	5.5
Adjusted Moisture Variation %	**	**	**	**
Hilf Density Ratio (%)	102.5	102.0	100.0	104.0
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