

Post Earthworks Completion Report





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Disclaimer

This report is for Structerre only to use in design. Any design by anyone else for any structure must be specifically approved by Structerre. If used by anyone else for anything other than a Structerre design or structure, Structerre takes no responsibility.



1. Introduction

At the request of Mr Abhishek Patel of MGC Civil, a representative from Structerre Consulting regularly attended the above site from November 2024 to July 2025 to undertake earthworks verification assessments. The purpose of this assessment is to provide a Site Classification in accordance with AS 2870-2011 Residential slabs and footings and Geotechnical Certification after completion of bulk earthworks.

A copy of the plan outlining the development is attached to this letter.

2. Fieldwork

2.1 Fieldwork by Structerre

A representative from Structerre Consulting, (Structerre), attended the site during and at the completion of the project to assess works. Field testing comprising of hand auger boreholes, Perth Sand Penetrometer (PSP) tests (in accordance with AS 1289 6.3.3), and Field Nuclear Density testing (in accordance with AS 1289.5.8.1). Testing was conducted by Structerre to confirm the following:

- Adequate removal of deleterious matter, topsoils and vegetation.
- Inspection of stripped surface for material suitability.
- Assessment of stripped surface for compaction.
- Assessment of import fill.
- Audit of compaction of fill materials placed.
- Audit boreholes to confirm thickness of inert fill and or in-situ sand.

Ground conditions of the site at completion of the earthworks were obtained by hand auger and are summarised below:

Location	Depth	Description					
DILI	0-1200mm	SAND SP, grey, fine to medium grained, non-plastic					
BH1	1200-1800mm	SAND SP, white, fine to medium grained, non-plastic.					
BH 2	0-500mm	SAND trace gravel (limestone) SP, cream, fine to medium grained, non-plastic.					
BH 2	500-1800mm	SAND trace gravel (limestone) SP, grey, fine to medium grained, non-plastic.					
BH 3	0-1800mm	SAND trace gravel (limestone) SP, grey, fine to medium grained, non-plastic.					
BH 4	0-300mm	SAND trace gravel (limestone) SP, yellow-grey, fine to medium grained, non-plastic.					
	300-1800mm	SAND trace gravel (limestone) SP, grey, fine to medium grained, non-plastic.					



General observations and the subsequent results obtained from Structerre's audit testing on site indicate the earthworks were conducted in accordance with AS 3798-2007 Guidelines on earthworks for commercial and residential developments and the provided drawings.

2.2 Fieldwork by Others

During the earthworks, the Contractor performed regular compaction testing using a PSP to test the compaction of placed fill materials. These test results form part of the assessment in determining site classification for the stage.

3. Site Classification

AS 2870-2011 provides the site classification based on the determination of potential surface movements from seasonal moisture change. Based on the site testing and observations performed by Structure, in addition to the information forwarded by MGC Civil, Brooklands A11 – Park Street, Henley Brook for the following lots can be classified as:

Site Classification Class 'A'.

- Lots 148 to 198 inclusive.
- Lots 356 to 368 inclusive.

These assessments are based on the following:

• All stormwater runoff from roofs and paved areas is disposed of as far as practical from structures to reduce the risk of differential settlements.

4. Conclusion

This assessment is based on the site condition at the time of testing by Structerre. No allowance has been made for future disturbance for installation of underground services, or additional earthworks by builders or others. Builders should carry out their own compaction checks on a lot-by-lot basis, compacting any localised loose areas where necessary.

Please note that the horizontal and vertical limits of the earthworks were determined by others, and as such, Structerre does not provide any comment as to whether these aspects are compliant with the plans and specifications for the project. Structerre does not guarantee earthwork construction, nor relieve the earthwork contractor of their responsibility to perform the earthworks in accordance with the contract plans and specifications.

We trust this meets with your requirements. Should you require any additional information, or clarification of the above, please contact the undersigned.



For and behalf of Structerre Consulting.

Wayne Rozmianiec Laboratory Manager

24 July 2025

5. References

AS2870-2011 Residential Slabs and Footing

AS3798-2007 Guidelines on earthworks for commercial and residential developments

AS1289 Method of Testing Soil for Engineering Purposes



Appendix A – Site Plan

VOLUMES(150mm TOPSOIL STRIP) BALANCE CUT FILL 18403,166 LEGEND STAGE BOUNDARY EARTHWORKS BOUNDARY EXISTING ROAD CENTRE LINE EXISTING ROAD EDGE DESIGN CONTOURS (0.2m INTERVAL) FUTURE CONTOURS (0.2m INTERVAL) 181 EXISTING CONTOLIBS (0.2m INTERVAL) 356 37.00 137 136 135 GROUNDWATER CONTOURS - PERTH 36.90 168 169 170 171 172 174 175 176 177 178 179 180 37.00 37.00 37.00 GROUNDWATER ATLAS (0.2m INTERVAL) 37.30 37.20 37.00 37.20 37.20 37.00 37.00 37.00 37.10 37.20 37.00 24 PROPOSED LOTS 182 36.90 357 134 36.80 36.90 EXISTING LOTS 98 ~ C 183 358 34.8 36.70 133 EXISTING TREE TO BE PROTECTED AND RETAINS 36.80 36.80 197 196 195 194 193 186 185 ROCKWATTLE EXISTING TREE TO BE REMOVED 37.20 37.30 37.20 37.10 37.00 37.00 36.90 36.90 36.80 36.80 36.70 36.70 EXISTING ROAD SIGN 359 132 184 36.70 36.70 EXISTING FOOTPATH TO BE REMOVED 36.60 EXISTING FOOTPATH 131 36.60 PROPOSED RETAINING WALLS 200 51.95 SPOT LEVEL QUANDONG ROAD 130 36.50 TEMPORARY BASIN 36.50 BULGALLAWAY ROAD 155 154 36.70 153 842 159 GUTTER LEVELS 148 150 149 151 REVILLEA 36.60 36.80 36.40 36.50 362 36.50 36.40 37.10 37.10 37.00 366 36.40 36.40 THE CONTRACTOR SHALL PROTECT ALL EXISTING KERBS, ROAD 105 106 363 367 PAVEMENTS AND EXISTING INFRASTRUCTURE SERVICES IN PARK STREET AS 160 36.70 36.30 PART OF THIS CONTRACT. 36.60 PART OF THIS CONTRACT.
2. IT IS RECOMMENDED THE CONTRACTOR UNDERTAKES A ROAD DILAPIDATION SURVEY AND REPORT PRIOR TO THE COMMENCEMENT OF WORKS AND PROVIDES A COPY OF THIS TO THE SUPERINTENDENT AND THE 36.40 36.30 36.50 94 95 37.10 37.00 CITY OF SWAN.

3. THE CONTRACTOR SHALL PROTECT ALL EXISTING TREES IN THE PARK 364 36.40 368 104 107 161 STREET ROAD RESERVATION, INCLUDING THE PROPOSED ROAD RESERVATION 36.30 STREET ROUGHESTENDEN, ROUGHBIGHT HE PROPOSED ROUGHESTENDEN WORDHING, THE COURTWART OF SHALL DILINEART THESE TREES WITH GREEN REBOUNT OR ROUGHEST HER STRESS HAT HOUSE THE HER THE WITH GREEN ARBOUNT OR ROUGHEST HER STRESS HAT HOUSE THE HER THE COURTWART OF SHALL LOCALLY PROTECT ALL EXISTING FEATHWARTS MATURES, SHAPPED SHALL LOCALLY PROTECT ALL EXISTING FEATHWARTS MATURES, SURFACE FEATHWART HOUGH HOUSE SHAPPED HER SHAPPED SHAPPED HER SHAPPED SHAPPED SHAPPED HER SHAPPED 36.40 36.50 36.60 36.70 93 96 37.00 121 36.90 103 162 36.30 36.10 36.60 36.30 36.50 RETAINING WALLS ARE SHOWN ON THIS PLAN FOR INFORMATION 97 5. HE FAMINIE WALLS ARE SHOWN ON THIS PEAR FOR INFORMATION PURPOSES ONLY, WHERE REATHING WALLS ARE SHOWN, THE CONTRACTOR SHALL BATTER DOWN AT 1 IN 3 TYPICALLY BETWEEN THE LEVELS ENSURING THE BATTER IS OFFSET WITH THE TOP AND BOTTOM OF THE BATTER EQUIDISTANT FROM THE CENTRE OF THE WALL. 36.90 36.80 114 102 · 109 36.25 163 36.50 36.20 THE INTENT OF THESE EARTHWORKS ARE THAT THEY ARE COMMENCED 36.60 118 36.40 36.00 AT THE SAME TIME AS PROPOSED FARTHWORKS FOR MIRVAC'S DEVELOPMEN 36.00 36.00 36.00 ON THE EASTERN BOUNDARY OF THE SUBJECT SITE, THE CONTRACTOR SHALL ON THE EAST BM BOUNDAMY UP THE SUBJECT SITE. THE CONTINATO, US SHALL BE REDUIRED TO COORDINATE ALL BEATHWORKS WITH MINNAYS BATTER FROM THE STATE OF THE SHOWN ON THESE PARAS ARE MAINTAINED WITHIN OUR SUBJECT LANDHOODINGS.

7. THE CONTRACTOR SHALL STRIP THE FIRST 100MM OF TOPSOIL AND STOCKPILE.

8. THE CONTRACTOR SHALL SIEVE ALL TOPSOIL AND BLEND THE SERVED. 91 98 36.80 36.70 101 164 110 36.50 36.40 36.10 36.30 128 8 THE CONTINACTION SHALL SHEVE ALL TURSUL AND BLEND THE SHEVED TOPSOIL AT 1 PART TO 3 WITH THE PROPOSED CUT TO FILL THE REMAINING ORGANIC MATERIAL SHALL BE STOCKPILED ON LAND DIRECTLY TO THE NORTH OF THE AREA B EARTHWORKS EXTENTS SHOWN IN DRAWING KC00334 111 (g) 99 90 116 112 go 111 SPLENDOUR AVENUE 36,70 36.60 36.50 36.10 36.40 15 WARNING 36.40 36,30 36.10 The location of underground cables are approximate only and their exact position should be checked on site. No guarantee i given that all existing cables and services are shown. Locate all underground cables and services before commencement of wor Refer to Worksafe Regulation 3.21. 36.60 36.50 DIAL1100 BEFORE YOU DIG EARTHWORKS PLAN SCALE 1:500 **CONTOURS UPDATED** ESIGNED BOROVIC PROGRESS DEVELOPMENTS PTY LTD PERTH OFFICE KC00334.111 . KLEYWEG SUITE 6, 110 ERINDALE ROAD **BROOKLANDS ESTATE AREA A11** SCALE 1:500 (A1) BALCATTA WA 6021 ROJECT MANAGER HENLEY BROOK PH: (08) 6263 9490 Premise C100 1 WEB: www.premise.com.au EARTHWORKS PLAN DATE REV DESCRIPTION



Appendix B – Test Results



www.structerre.com.au



44 Crocker Drive, Malaga, WA 6090

Post: PO Box 792, Balcatta WA 6914

Ph: (08) 9205 4500

Email: wageotechlab@structerre.com.au Website: www.structerre.com.au ABN: 71 349 772 837 / ACN: 008 966 283

Daily Summary Field Report

Client: MGC Civil

Unit 7, 56 Prindiville Drive, Po Box 1639

Wangara WA 6947 Wangara, WA 6065

D349318 - Brooklands A12, Henley Brook - Park Street Henley Project:

Brook

Henley Brook, WA

Report No.: DSFR:W24-04857 Issue No.: 1

Reviewed By: Wayne Rozmianiec Review Date: 11/8/2024

General Information

Work Date: 11/8/2024 Representative: Wayne Rozmianiec

Weather: Cloudy Time Arrived: 10:00 AM Time Departed: 10:30 AM Time on Site (h): 0.50

Contractor: MGC Civil

Other Observations

Site Inspection

Form No: 119018

At the request of MGC Civil, Structerre Consulting have attended the Brooklands A10 Henley Brook Project to conduct an earthworks inspection.

Area noted on the attached plan has had vegetation and topsoil removed, remaining sand soil raked to removed any oversized or deleterious materials and proof compacted.

Western section still requires raking and proof compaction, once completed place fill as required.



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Email: wageotechlab@structerre.com.au Website: www.structerre.com.au ABN: 71 349 772 837 / ACN: 008 966 283

Daily Summary Field Report

Client: MGC Civil

Unit 7, 56 Prindiville Drive, Po Box 1639 Wangara WA 6947

Wangara WA 6947 Wangara, WA 6065

Project: D349318 - Brooklands A12, Henley Brook - Park Street Henley

Brook

Henley Brook, WA

Report No.: DSFR:W24-04857 Issue No.: 1

Chrisi-

Reviewed By: Wayne Rozmianiec

Review Date: 11/8/2024

Stripped and proofed surface



Description:

Raking - west portion

Form No: 119018



Description:



44 Crocker Drive, Malaga, WA 6090

Post: PO Box 792, Balcatta WA 6914

Ph: (08) 9205 4500 Email: wageotechlab@structerre.com.au

Website: www.structerre.com.au ABN: 71 349 772 837 / ACN: 008 966 283

Daily Summary Field Report

Client: MGC Civil

Unit 7, 56 Prindiville Drive, Po Box 1639 Wangara WA 6947

Wangara, WA 6065

D349318 - Brooklands A12, Henley Brook - Park Street Henley Project:

Brook

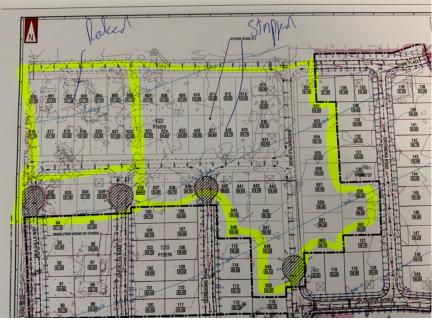
Henley Brook, WA

Report No.: DSFR:W24-04857 Issue No.: 1

Reviewed By: Wayne Rozmianiec

Review Date: 11/8/2024

Plan



Description:



Malaga Laboratory

44 Crocker Drive, Malaga, WA 6090 Post: PO Box 792, Balcatta WA 6914

Ph: (08) 9205 4500

Email: wageotechlab@structerre.com.au Website: www.structerre.com.au

ABN: 71 349 772 837 / ACN: 008 966 283

Report Number: PSP:25S-09162 Date of issue: 23/07/2025

Issue Number: 1

W25-03732 25S-09162

1050

Accreditation Number 18742



ACCREDITATION

Work Order ID:

Depth of Test (mm):

Layer Thickness (mm):

Sample ID:

Approved Signatory: Jacob Pritchard

Accredited for compliance with ISO/IEC 17025-Testing

Determination of the Penetration Resistance of Soil -AS 1289.6.3.3

Client: MGC Civil

Client Address: Unit 7, 56 Prindiville Drive Wangara WA 6065

Project: Brooklands A11, Henley Brook - PARK ST HENLEY

BROOK

D349318 Project No:

Earthworks Completion Location:

Proposed Use: Fill Material Type: Sand Site Selection Method: Client

Sampling Method: N/A **Date Tested:** 18/07/2025

Test Results Test Site No. 1 2 3 4 5 6 7 8 9 10 **Moisture Condition Depth Groundwater** Depth of Test (mm) Blows/300 mm 0 - 150 **Set Depth** 150 - 450 18 15 11 11 15 14 15 15 13 11 450 - 750 25+ 25+ 23 25+ 22 25+ 25+ 25+ 25+ 25+ 750 - 1050 19 25+ 1050 - 1350 1350 - 1650 1650 - 1950 **Test Results** Test Site No. 11 12 13 14 15 16 17 18 19 20 **Moisture Condition Depth Groundwater** Depth of Test (mm) Blows/300 mm 0 - 150 **Set Depth** 150 - 450 15 18 16 15 13 12 13 18 13 13 450 - 750 25+ 25+ 25+ 23 25+ 18 25+ 25+ 24 22 750 - 1050 25+ 21 25+ 25+ 1050 - 1350 1350 - 1650 1650 - 1950 Comments

Testing carried in accordance with the methods described in AS 1289.6.3.2 - depth greater than 450mm total penetration tested.



Malaga Laboratory

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Ph: (08) 9205 4500

Email: wageotechlab@structerre.com.au Website: www.structerre.com.au ABN: 71 349 772 837 / ACN: 008 966 283

> Report Number: PSP:25S-09163 Date of issue: 23/07/2025

Issue Number: 1

W25-03732 25S-09163

1050

Accreditation Number 18742



ACCREDITATION

Work Order ID:

Depth of Test (mm):

Layer Thickness (mm):

Sample ID:

Approved Signatory: Jacob Pritchard

Accredited for compliance with ISO/IEC 17025-Testing

Determination of the Penetration Resistance of Soil -AS 1289.6.3.3

Client: MGC Civil

Client Address: Unit 7, 56 Prindiville Drive Wangara WA 6065

Project: Brooklands A11, Henley Brook - PARK ST HENLEY

BROOK

D349318 **Project No:**

Earthworks Completion Location:

Proposed Use: Fill Material Type: Sand Site Selection Method: Client

Sampling Method: N/A **Date Tested:** 18/07/2025

Test Results Test Site No. 21 22 23 24 25 26 27 28 29 30 **Moisture Condition Depth Groundwater** Depth of Test (mm) Blows/300 mm 0 - 150 **Set Depth** 150 - 450 8 11 8 10 11 11 9 9 10 12 450 - 750 25+ 15 15 15 20 15 14 19 15 19 750 - 1050 19 25+ 20 16 23 25+ 25+ 24 19 1050 - 1350 1350 - 1650 1650 - 1950 **Test Results** Test Site No. 31 32 33 34 35 36 37 38 39 40 **Moisture Condition Depth Groundwater** Depth of Test (mm) Blows/300 mm 0 - 150 **Set Depth** 150 - 450 9 12 11 12 12 11 13 10 12 11 450 - 750 21 19 19 21 15 23 25+ 25+ 25+ 25+ 750 - 1050 24 23 25+ 25+ 21 25+ 1050 - 1350 1350 - 1650 1650 - 1950

Comments

Testing carried in accordance with the methods described in AS 1289.6.3.2 - depth greater than 450mm total penetration tested.



Malaga Laboratory

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Ph: (08) 9205 4500

Email: wageotechlab@structerre.com.au Website: www.structerre.com.au

ABN: 71 349 772 837 / ACN: 008 966 283 Report Number: PSP:25S-09224

Date of issue: 23/07/2025

W25-03732 25S-09224

Issue Number: 1

Accreditation Number 18742

ACCREDITATION

Work Order ID:

Sample ID:

Approved Signatory: Jacob Pritchard

Accredited for compliance with ISO/IEC 17025-Testing

Determination of the Penetration Resistance of Soil -AS 1289.6.3.3

Client: MGC Civil

Client Address: Unit 7, 56 Prindiville Drive Wangara WA 6065

Project: Brooklands A11, Henley Brook - PARK ST HENLEY

BROOK

D349318 Project No:

Earthworks Completion Location:

Proposed Use: Fill Material Type: Sand Site Selection Method: Client

1050 Depth of Test (mm): Layer Thickness (mm): Sampling Method: N/A Date Tested: 18/07/2025 **Test Results** Test Site No. 41 42 43 44 45 46 47 48 50 49 **Moisture Condition Depth Groundwater**

Depth of Test (mm)		Blows/300 mm								
0 - 150		Set Depth								
150 - 450	13	11	12	15	14	14	13	12	15	18
450 - 750	25+	24	23	25+	25+	25+	25+	25+	25+	25+
750 - 1050		25+	25+							
1050 - 1350										
1350 - 1650										
1650 - 1950										
Test Results										
Test Site No.	51	52	53	54	55					
Moisture Condition										
Depth Groundwater										
Depth of Test (mm)		Blows/300 mm								
0 - 150		Set Depth								
150 - 450	14	12	15	12	15					
450 - 750	24	25+	25+	25+	23					
750 - 1050	25+				19					
1050 - 1350										

1650 - 1950 Comments

1350 - 1650

Testing carried in accordance with the methods described in AS 1289.6.3.2 - depth greater than 450mm total penetration tested.





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Email: wageotechlab@structerre.com.au Website: www.structerre.com.au ABN: 71 349 772 837 / ACN: 008 966 283

Report Number: PSP:25S-09224 Date of Issue23/07/2025

Issue Number: 1

PSP Report

Client:

Client Address: Unit 7, 56 Prindiville Drive Wangara WA 6065

Brooklands A11, Henley Brook - PARK ST HENLEY Project:

BROOK

Project No: D349318





Accreditation Number 18742

Approved Signatory: Jacob Pritchard

Accredited for compliance with ISO/IEC 17025





Malaga Laboratory 44 Crocker Drive, Malaga, WA 6090 Post: PO Box 792, Balcatta WA 6914 Ph : (08) 9205 4500

Email: wageotechlab@structerre.com.au Website: www.structerre.com.au ABN: 71 349 772 837 / ACN: 008 966 283

Report Number CCR:W24-04921

18/11/2024 Issue 1

Compaction Correlation Report

Client: MGC Civil

Client Address: Unit 7, 56 Prindiville Drive, Wangara WA 6065

Project: Brooklands A11, Henley Brook

PARK ST HENLEY BROOK

Project No: D349318



Authorised Signatory Jacob Pritchard

Sample Details

Location PSP Correlation - Fill AS 1289.5.2.1,AS 1289.5.8.1

Field Test Procedures AS 1289.5.8.1

Sampling Method AS1289.1.2.1 6.4(b) -Compacted

Date of Test 11 Nov 2024

Field Test Results

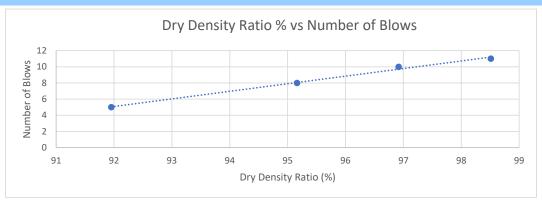
Field Sample ID	1	2	3	4
Wet density (t/m³)	1.67	1.76	1.80	1.90
Depth of Test (mm)	300	300	300	300
Thickness of the Layer (mm)	-	-	-	-
AS Sieve Size (mm)	19	19	19	19
Oversize Wet (%)	0	0	0	0
Oversize Dry (%)	0	0	0	0
Moisture content (%)	5.7	7.1	7.7	12.2
Dry density (t/m³)	1.58	1.64	1.67	1.70
Moisture Ratio (%)	43.0	54.0	58.5	92.5
Moisture Variation (%)	7.5 DRY	6.0 DRY	5.5 DRY	1.0 DRY
Dry Density Ratio (%)	92.0	95.0	97.0	98.5
Number of Blows	5	8	10	11

Laboratory Test Results

Sample ID24S-12307Maximum Dry Density (t/m³)1.72MaterialSandOptimum Moisture Content (%)13.0

Proposed Use Fill

Correlation



The results indicate that 8 blows are required to obtain a Dry Density Ratio of 95 %

Comments