



WAGNER

SOIL TESTING | PIPE TESTING | CONTRACT DRILLING

Level 1 Report – AS3798

Client: Golding
Project: Riverbank Estate Stage 22A, Caboolture Qld 4510
Job No: J25/11
Docket No: 64005
Developer: PEET
Consulting Engineer: Egis



Version	Date	Author	Initials	Reviewer	Initials
1	15/01/2025	Luke Whittaker		Jacob Jones	



SOIL SCIENCE AUSTRALIA



AUSTRALIAN DRILLING INDUSTRY ASSOCIATION



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1.0 Introduction

Wagner Soil Testing has recently completed a Level One Overview of Earthworks, in accordance with the requirements of AS3798 – “Guidelines on Earthworks for Commercial and Residential Developments” for Riverbank Estate Stage 22A, Caboolture Qld 4510.

Controlled fill (as defined in AS 2870) was placed by Golding. Stripping instructions, proof rolling, and compaction control testing was carried out by Wagner Soil Testing (on a fulltime basis) during all earthwork’s operations. Our onsite supervision component excludes assessments of fill quality and engineering properties that are outside the requirements of AS3798 – 2007, including CBR values and soil reactivity.

2.0 Site Description

The site is located at Ben Crescent, Caboolture Qld 4510. The general location of the site is shown in the attached site plans (Appendix 1). The site is bound by existing residential developments.

2.0 Foundation Preparation

3.1 Site Stripping

Vegetation, topsoil, and organic rich materials were stripped and stockpiled onsite prior to the commencement of filling operations. As a safety factor several test pits were excavated in the proposed fill area to assess subsurface conditions & no significant issues were noted during this phase.

3.2 Proof Rolling

All stripped areas were proof rolled prior to any fill placement. Any compressible areas with apparent movement were excavated to a firm base before any fill being placed.

4.0 Controlled Filling

Fill materials (on-site) were compacted using a medium sized pad foot roller in layers not exceeding 0.3m loose. The natural ground in the areas of filling generally comprised of Sandy Clay (CH) & Silty Clay (CH). The fill material used was generally as above. Moisture contents of all fill material placed was monitored by Wagner Soil Testing. Total volumes of fill reached 6,955m³.

5.0 Compaction Control Testing

Compaction Control Testing was carried out by Wagner Soil Testing. Testing was carried out in accordance with the requirements of AS3798 Table 5.1 (Minimum Relative Compaction) and Table 8.1 (Frequency of Field Density Tests). During the works, twenty-one (21) Field Dry Densities were carried out on fill materials together with Dynamic Cone Penetrometers



(DCP's) over the filled zones periodically & at the completion of earthworks operations to help quantify bearing capacities.

6.0 Field Density Results

All Nuclear Field Densities carried out on the fill indicated Density Ratios greater than the specified requirement of 95% (standard compaction) & AS3798 Table 5.1.

7.0 Report on Filling Operations

The results obtained from Compaction Control Testing, together with observations made during earthworks operations indicate that all fill materials were placed in a controlled manner in accordance with good engineering practices. The earthworks have been carried out to meet the requirements of Level 1 Certification as per AS3798 – “Guidelines on Earthworks for Commercial and Residential Developments”.

8.0 Notes

Certified / Controlled (Level 1) Fill is only an assurance of its density. There are sites where long-term consolidations of fill can occur, unrelated to its actual density. Sites where fill has been placed over inferior material and sites where the depth of controlled fill varies dramatically over short distances are sites where differential consolidations must be considered. Although all Field Densities carried out reached density ratios greater than 95% as required, some material still may have bearing ratios below 100kPa as per AS2870 – Residential Slabs & Footings depending on material composition, and unfavourable site classifications and low subgrade design strengths still may be encountered.

All compacted fill is subject to secondary (creep) settlement, which is relational to the depth of the fill. Estimated secondary settlement may be of the order of 1% to 2% of the total fill height over 15 years. There is a possibility that additional fill has been placed after the date of the last field density test or at times when Wagner Soil Testing has not been notified that filling operations are in progress. The installation of services may cause disruption of the compacted fill.

Unless otherwise stated, Level 1 Certification does not address trench backfill operations, batter slope stability, retaining wall backfill, global stability analysis, acid sulfate testing and or management. The “supervision” component of this Level 1 Report is not NATA endorsed. Wagner Soil Testing must be contacted if any site levels are modified whatsoever. It is the client's responsibility to maintain site drainage after the issue of this report.

A full geotechnical site investigation / classification and foundation design for the specific ground conditions should be carried out by suitably qualified or experienced personnel prior to building. This service can be provided, if required, by contacting Wagner Soil Testing.



9.0 Constraints

This report was produced for the sole use of Golding. This report should not be used by or depended upon for other projects or purposes on the same or other projects or by a third party. In the preparation of this report Wagner Soil Testing has relied upon information provided by the client and or their agents.

The results provided in this report are indicative of the subsurface conditions on the site only at the specific sampling or testing locations, and then only to the depths investigated along with the time the work was carried out. It is known that subsurface conditions can suddenly change due to irregular geological processes and as a result of human influences. Such changes may occur after Wagner Soil Testing's field testing has been completed.

Certain ground conditions and the materials behaviour observed or contained at the test locations may alter from those which may be encountered elsewhere on the site. Should variations in subsurface conditions be encountered, then additional advice should be sought from Wagner Soil Testing and if required, amendments made.

Wagner Soil Testing cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome, or conclusion given in this report.

To establish a geotechnical model as per AS1726-2017-5.2 we require extra testing. No differential settlement estimates have been calculated for this site. However, the designer must consider potential differential settlement across individual lots in relation to this Level 1 Report.

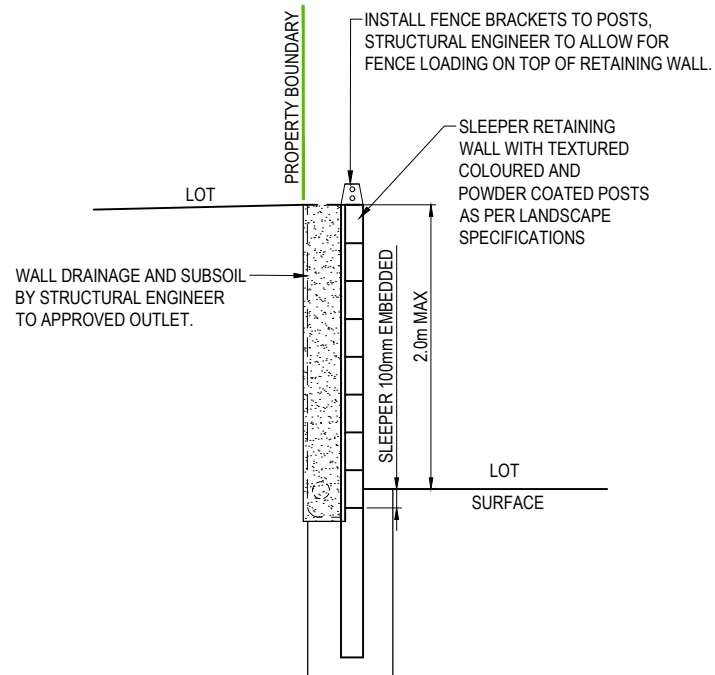
For further technical support regarding this Geotechnical Report please contact Mr. Dean Wagner of Wagner Soil Testing.

Dean Wagner
Managing Director
Wagner Soil Testin

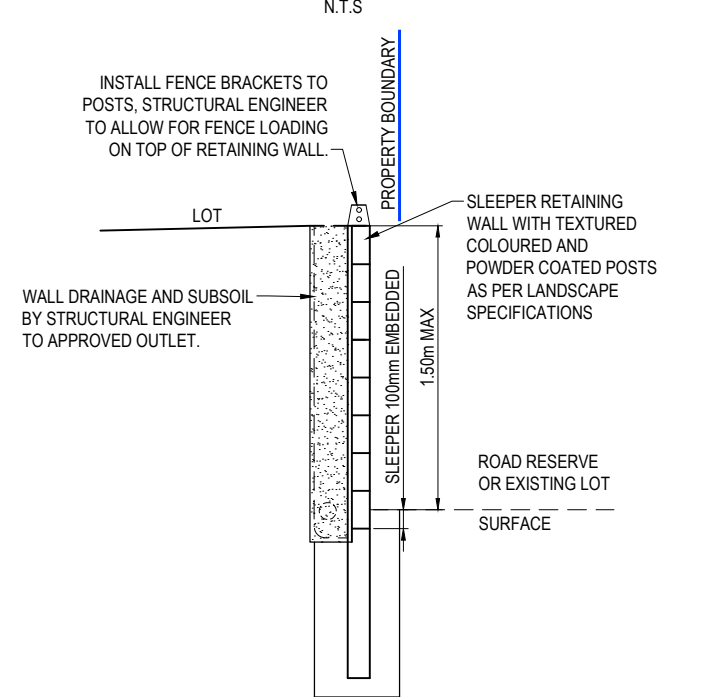


Appendix 1: General Layout Plan

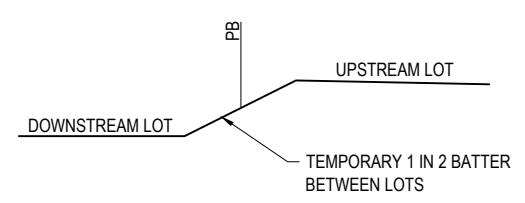
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TYPICAL SINGLE TIER CONCRETE SLEEPER RETAINING WALL AT BDY TYPE 1 (INCLUDING B2B WALLS)



TYPICAL SINGLE TIER CONCRETE SLEEPER RETAINING WALL AT BDY TYPE 2



TYPICAL BATTER DETAIL BETWEEN LOTS
SCALE 1:100 (A1)
SCALE 1:200 (A3)

LEGEND

- STAGE BOUNDARY
- PROPOSED TYPE 1 CONCRETE SLEEPER RETAINING WALL REFER TYPICAL DETAIL
- PROPOSED TYPE 2 CONCRETE SLEEPER RETAINING WALL REFER TYPICAL DETAIL
- EXISTING CONCRETE SLEEPER RETAINING WALL
- EXISTING ACOUSTIC FENCE
- EXISTING SURFACE CONTOUR (0.5m INTERVALS)
- BULK EARTHWORKS SURFACE CONTOUR (0.25m INTERVALS)
- EXISTING DRAINAGE SWALE
- AREA OF EARTHWORKS FILL
- AREA OF EARTHWORKS CUT
- FINISHED SURFACE SPOT LEVEL
- EXISTING SURFACE LEVEL
- PROPOSED RETAINING WALL HEIGHT (1.31m)
- INDICATIVE DRIVEWAY LOCATION
- MANDATORY ZERO LOT LINE
- NOMINAL ZERO LOT LINE
- EXISTING EARTHWORKS BATTER

- BULK EARTHWORKS NOTES**
- NOTWITHSTANDING THE LIMITS OF CUTTING AND FILLING SHOWN ON THE CROSS SECTIONS, THE ACTUAL LIMITS SHALL BE DETERMINED ON-SITE BY THE SUPERINTENDENT DURING CONSTRUCTION AND SIMILARLY THE FINISHED SURFACE CONTOURS MAY BE ADJUSTED BY WRITTEN DIRECTION OF THE SUPERINTENDENT DURING CONSTRUCTION.
 - SUBGRADE TEST RESULTS TO BE FORWARDED TO THE SUPERINTENDENT FOR DETERMINATION OF BOX DEPTHS PRIOR TO EXCAVATION. TESTS SHALL INCLUDE SOAKED CBR AND/OR OTHER TESTS AS REQUESTED BY THE SUPERINTENDENT.
 - CONTRACTOR TO LIAISE WITH ALL RELEVANT SERVICE AUTHORITIES TO ASCERTAIN SERVICES PRESENT ON-SITE. ANY ALTERATION WORKS TO SERVICES WILL BE CARRIED OUT BY THAT SERVICE AUTHORITY ONLY.
 - THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT PRIOR TO COMMENCING THE DEMOLITION OF ANY EXISTING STRUCTURES WITHIN THE SITE AREA.
 - ALL DRAINAGE STRUCTURES TO BE PRESERVED FROM THE EFFECTS OF STRUCTURAL LOADING GENERATED BY THE EARTHWORKS.
 - ALL EXCAVATION AND FILLING SHALL BE COMPACTED TO THE REQUIREMENTS OF AS3798-2007 IN ACCORDANCE WITH THE LOCAL AUTHORITY REQUIREMENTS. LEVEL 1 SUPERVISION IS REQUIRED.
 - ALL CLEARING SHALL BE CARRIED OUT IN STAGES TO ALLOW FOR RELOCATION OF FAUNA, COMMENCING AT THE LOWER AREAS OF THE SITE. SETBACK TO FRONT OF PADS ARE 3.00m UNLESS OTHERWISE NOTIFIED.
 - CONTRACTOR TO USE INDUSTRY BEST PRACTICE TO ENSURE ADEQUATE DUST CONTROL DURING EARTHWORKS OPERATIONS.
 - ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH WORKPLACE HEALTH AND SAFETY REQUIREMENTS.

- RETAINING WALL NOTES:**
- CONCRETE SLEEPER RETAINING WALLS ARE A CIVIL CONTRACTOR DESIGN AND CONSTRUCT ITEM
 - THE CIVIL CONTRACTOR SHALL ENGAGE A STRUCTURAL RPEQ TO DESIGN THE RETAINING WALLS
 - PRIOR TO CONSTRUCTION THE CIVIL CONTRACTOR SHALL PROVIDE THE STRUCTURAL RPEQ DESIGN AND FORM 15.
 - PRIOR TO PRACTICAL COMPLETION BEING APPROVED THE CIVIL CONTRACTOR SHALL PROVIDE A FORM 16 FOR THE CONSTRUCTED RETAINING WALLS CERTIFIED BY THE STRUCTURAL RPEQ, AND COPIES OF ALL STRUCTURAL RPEQ INSPECTION REPORTS.

EARTHWORKS QUANTITIES:
 CUT VOLUME : 2,373m³
 FILL VOLUME : 5,441m³
 BAL : 3,068m³ IMPORT
 NOTE THAT THESE QUANTITIES DO NOT FORM PART OF THE CONTRACT

NOTE:
 NOTWITHSTANDING THAT EXISTING SERVICES MAY OR MAY NOT BE SHOWN ON THE JOB DRAWINGS, NO RESPONSIBILITY IS TAKEN BY THE SUPERINTENDENT OR THE PRINCIPAL FOR THIS INFORMATION WHICH HAS BEEN SUPPLIED BY OTHERS. THE DETAILS ARE PROVIDED FOR INFORMATION ONLY. THE CONTRACTOR SHALL ASCERTAIN THE POSITION OF ANY UNDERGROUND SERVICES IN THIS AREA AND SHALL BE RESPONSIBLE FOR MAKING GOOD ANY DAMAGE THERETO.

MINIMUM DESIGN REQUIREMENTS
 - SURCHARGE LOADING TO SUIT RESIDENTIAL HOUSES LOADING TO BE DETERMINED BY STRUCTURAL ENGINEER
 - POST AND FOOTING DESIGN TO ALLOW FOR 1.8m HIGH FENCE BY OTHERS
 - MAX 1V:4H SLOPE BEHIND WALL
 - ALL RETAINING WALL FOOTINGS TO BE LOCATED A MINIMUM 1.0m HORIZONTALLY CLEAR OF THE ROOFWATER AND SEWER AND BE TAKEN BELOW THE ZONE OF INFLUENCE

CAUTION !! UNDERGROUND ELECTRICAL CABLES
 UNDERGROUND ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING

CAUTION !! UNDERGROUND TELECOMMS CABLES
 UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	SCALE	CLIENT	PROJECT	DRAWING TITLE
1	06.10.23	ISSUED FOR APPROVAL	RT	CH			1:500 1:1000	PEET	RIVERBANK ESTATE	BULK EARTHWORKS LAYOUT PLAN
2	07.12.23	RFI RESPONSE	CH	CH	CA	ISSUED FOR APPROVAL		CABOOLTURE SYNDICATE LTD	STAGE 22A	
					DESIGN CHECK	APPROVED			DISCLAIMER ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE.	
					MARK WYER	RPEQ 16191			PROJECT No.	REVISION
					FOR & ON BEHALF OF EGIS CONSULTANTS PTY LTD				21-000058.4	2
									DRAWING No.	
									200	



Appendix 2: Field Density Reports

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REPORT ON FIELD HILF DENSITY - NUCLEAR METER

Client:	Golding		Job No:	J25/11
Client Address:	58 Union Circuit, Yatala QLD 4207		Date:	13-Feb-25
Project:	Riverbank Estate - Stage 22A		Tested by:	LW
Location:	Caboolture, Qld		Checked:	JJ
Report Number:	1	Page	1 of 1	Order No: Royce

Test Methods	AS 1289 5.8.1/5.7.1/5.1.1		
Sample Method	Earthworks Layer (Compact) AS1289 1.2.1 (6.4(b))		
Lab Number	LIE/001	LIE/002	LIE/003
Test Location	Lot 1509	Lot 1510	Lot 1511
	Front LHS	Front Centre	Centre
	1st Lift	1st Lift	1st Lift
Layer / Elevation	Allotment Fill	Allotment Fill	Allotment Fill
Material Source	Onsite	Onsite	Onsite
Depth Tested	200	200	200
Layer Thickness	200	200	200
Date Tested	13-Feb-25	13-Feb-25	13-Feb-25
Time Tested	AM	AM	AM
Material Sampled	After Compaction	After Compaction	After Compaction
Material Description	Sandy Clay	Sandy Clay	Sandy Clay
Test Results			
Insitu Wet Density (t/m ³)	1.94	1.97	1.96
Insitu Moisture Content (%)	N/A	N/A	N/A
PCWD (t/m ³)	2.04	2.03	2.04
APCWD (t/m ³)	N/A	N/A	N/A
Peak Added Moisture (%)	+1.7	+2.3	+0.4
Moisture Variation (%)	+1.9	+2.6	+0.5
Adjusted Moisture Variation (%)	N/A	N/A	N/A
Retaining Sieve (mm)	19.0	19.0	19.0
Percentage Oversize (wet)	0.0	0.0	0.0
HILF DENSITY RATIO (%)	95.5	97.0	96.0
Compaction Type	Standard	Standard	Standard
Degree of Compaction	95%	95%	95%
Remarks	Docket #56400		

REPORT ON FIELD HILF DENSITY - NUCLEAR METER

Client:	Golding		Job No:	J25/11
Client Address:	58 Union Circuit, Yatala QLD 4207		Date:	18-Feb-25
Project:	Riverbank Estate - Stage 22A		Tested by:	LW
Location:	Caboolture, Qld		Checked:	JJ
Report Number:	2	Page	1 of 1	Order No: Brenden

Test Methods	AS 1289 5.8.1/5.7.1/5.1.1		
Sample Method	Earthworks Layer (Compact) AS1289 1.2.1 (6.4(b))		
Lab Number	LIE/004	LIE/005	LIE/006
Test Location	Lot 1512	Lot 1511	Lot 1509
	RHS Centre Line	Front Centre Line	Rear LHS
	1st Lift	1st Lift	2nd Lift
Layer / Elevation	Allotment Fill	Allotment Fill	Allotment Fill
Material Source	Onsite	Onsite	Onsite
Depth Tested	200	200	200
Layer Thickness	200	200	200
Date Tested	18-Feb-25	18-Feb-25	18-Feb-25
Time Tested	AM	AM	AM
Material Sampled	After Compaction	After Compaction	After Compaction
Material Description	Sandy Clay	Sandy Clay	Sandy Clay
Test Results			
Insitu Wet Density (t/m ³)	1.95	1.98	2.00
Insitu Moisture Content (%)	N/A	N/A	N/A
PCWD (t/m ³)	2.04	2.02	2.03
APCWD (t/m ³)	N/A	N/A	N/A
Peak Added Moisture (%)	+1.7	+2.2	+0.6
Moisture Variation (%)	+1.9	+2.5	+0.7
Adjusted Moisture Variation (%)	N/A	N/A	N/A
Retaining Sieve (mm)	19.0	19.0	19.0
Percentage Oversize (wet)	0.0	0.0	0.0
HILF DENSITY RATIO (%)	95.5	98.0	98.5
Compaction Type	Standard	Standard	Standard
Degree of Compaction	95%	95%	95%
Remarks	Docket # 57310		

REPORT ON FIELD HILF DENSITY - NUCLEAR METER

Client:	Golding	Job No:	J25/11
Client Address:	58 Union Circuit, Yatala QLD 4207	Date:	18-Feb-25
Project:	Riverbank Estate - Stage 22A	Tested by:	LW
Location:	Caboolture, Qld	Checked:	JJ
Report Number:	3	Page	1 of 1
		Order No:	Brenden

Test Methods	AS 1289 5.8.1/5.7.1/5.1.1		
Sample Method	Earthworks Layer (Compact)	AS1289 1.2.1 (6.4(b))	
Lab Number	LIE/007		
Test Location	Lot 1508		
	Centre Line		
	2nd Lift		
Layer / Elevation	Allotment Fill		
Material Source	Onsite		
Depth Tested	200		
Layer Thickness	200		
Date Tested	18-Feb-25		
Time Tested	AM		
Material Sampled	After Compaction		
Material Description	Sandy Clay		
Test Results			
Insitu Wet Density (t/m ³)	2.02		
Insitu Moisture Content (%)	N/A		
PCWD (t/m ³)	2.06		
APCWD (t/m ³)	N/A		
Peak Added Moisture (%)	-0.2		
Moisture Variation (%)	-0.3		
Adjusted Moisture Variation (%)	N/A		
Retaining Sieve (mm)	19.0		
Percentage Oversize (wet)	0.0		
HILF DENSITY RATIO (%)	98.0		
Compaction Type	Standard		
Degree of Compaction	95%		
Remarks	Docket # 57310		

REPORT ON FIELD HILF DENSITY - NUCLEAR METER

Client:	Golding		Job No:	J25/11
Client Address:	58 Union Circuit, Yatala QLD 4207		Date:	20-Feb-25
Project:	Riverbank Estate - Stage 22A		Tested by:	LW
Location:	Caboolture, Qld		Checked:	DW
Report Number:	4	Page	1 of 1	Order No: Branden

Test Methods	AS 1289 5.8.1/5.7.1/5.1.1		
Sample Method	Earthworks Layer (Compact) AS1289 1.2.1 (6.4(b))		
Lab Number	LIE/008	LIE/009	LIE/010
Test Location	Ben Crescent & Chestnut Intersection Ch 182m - 1st Lift	Ben Crescent & Chestnut Intersection Ch 190m - 2nd Lift	Ben Crescent & Chestnut Intersection Ch 192m - 2nd Lift
Layer / Elevation	Embankment Fill	Embankment Fill	Embankment Fill
Material Source	Onsite	Onsite	Onsite
Depth Tested	200	200	200
Layer Thickness	200	200	200
Date Tested	20-Feb-25	20-Feb-25	20-Feb-25
Time Tested	AM	AM	AM
Material Sampled	After Compaction	After Compaction	After Compaction
Material Description	Sandy Clay	Sandy Clay	Sandy Clay
Test Results			
Insitu Wet Density (t/m ³)	1.99	1.96	1.98
Insitu Moisture Content (%)	25.0	27.0	24.0
PCWD (t/m ³)	2.06	2.03	2.04
APCWD (t/m ³)	N/A	N/A	N/A
Peak Added Moisture (%)	+0.2	+0.1	+0.3
Moisture Variation (%)	+0.2	+0.1	+0.3
Adjusted Moisture Variation (%)	N/A	N/A	N/A
Retaining Sieve (mm)	19.0	19.0	19.0
Percentage Oversize (wet)	0.0	0.0	0.0
HILF DENSITY RATIO (%)	97.0	96.5	97.0
Compaction Type	Standard	Standard	Standard
Degree of Compaction	95%	95%	95%
Remarks	Docket #57319		

REPORT ON FIELD HILF DENSITY - NUCLEAR METER

Client:	Golding	Job No:	J25/11
Client Address:	58 Union Circuit, Yatala QLD 4207	Date:	25-Feb-25
Project:	Riverbank Estate - Stage 22A	Tested by:	LW
Location:	Caboolture, Qld	Checked:	JJ
Report Number:	5	Page	1 of 1
		Order No:	Brenden

Test Methods	AS 1289 5.8.1/5.7.1/5.1.1		
Sample Method	Earthworks Layer (Compact) AS1289 1.2.1 (6.4(b))		
Lab Number	LIE/011	LIE/012	LIE/013
Test Location	Lot 1508	Lot 1509	Lot 1510
	Centre Line	Rear Centre Line	Centre Line
	2nd Lift	2nd Lift	2nd Lift
Layer / Elevation	Allotment Fill	Allotment Fill	Allotment Fill
Material Source	Onsite	Onsite	Onsite
Depth Tested	200	200	200
Layer Thickness	200	200	200
Date Tested	25-Feb-25	25-Feb-25	25-Feb-25
Time Tested	AM	AM	AM
Material Sampled	After Compaction	After Compaction	After Compaction
Material Description	Sandy Clay	Sandy Clay	Sandy Clay
Test Results			
Insitu Wet Density (t/m ³)	1.98	1.94	1.98
Insitu Moisture Content (%)	N/A	N/A	N/A
PCWD (t/m ³)	2.03	2.01	2.02
APCWD (t/m ³)	N/A	N/A	N/A
Peak Added Moisture (%)	+2.4	+0.3	+1.7
Moisture Variation (%)	+2.7	+0.4	+1.9
Adjusted Moisture Variation (%)	N/A	N/A	N/A
Retaining Sieve (mm)	19.0	19.0	19.0
Percentage Oversize (wet)	0.0	0.0	0.0
HILF DENSITY RATIO (%)	97.5	96.5	98.0
Compaction Type	Standard	Standard	Standard
Degree of Compaction	95%	95%	95%
Remarks	Docket # 57656		

REPORT ON FIELD HILF DENSITY - NUCLEAR METER

Client:	Golding	Job No:	J25/11
Client Address:	58 Union Circuit, Yatala QLD 4207	Date:	27-Feb-25
Project:	Riverbank Estate - Stage 22A	Tested by:	LW
Location:	Caboolture, Qld	Checked:	JJ
Report Number:	6	Page	1 of 1
		Order No:	Brenden

Test Methods	AS 1289 5.8.1/5.7.1/5.1.1		
Sample Method	Earthworks Layer (Compact) AS1289 1.2.1 (6.4(b))		
Lab Number	LIE/014	LIE/015	LIE/016
Test Location	Lot 1513	Lot 1513	Lot 1510 / 1511
	Rear CL	Centre Line	CL Boundary
	1st Lift	2nd Lift	3rd Lift
Layer / Elevation	Allotment Fill	Allotment Fill	Allotment Fill
Material Source	Onsite	Onsite	Onsite
Depth Tested	200	200	200
Layer Thickness	200	200	200
Date Tested	27-Feb-25	27-Feb-25	27-Feb-25
Time Tested	AM	AM	AM
Material Sampled	After Compaction	After Compaction	After Compaction
Material Description	Sandy Clay	Sandy Clay	Sandy Clay
Test Results			
Insitu Wet Density (t/m ³)	2.04	1.93	1.95
Insitu Moisture Content (%)	N/A	N/A	N/A
PCWD (t/m ³)	2.12	2.02	2.03
APCWD (t/m ³)	N/A	N/A	N/A
Peak Added Moisture (%)	-0.1	+0.4	-0.1
Moisture Variation (%)	-0.1	+0.4	-0.1
Adjusted Moisture Variation (%)	N/A	N/A	N/A
Retaining Sieve (mm)	19.0	19.0	19.0
Percentage Oversize (wet)	0.0	0.0	0.0
HILF DENSITY RATIO (%)	96.5	95.5	96.5
Compaction Type	Standard	Standard	Standard
Degree of Compaction	95%	95%	95%
Remarks	Docket # 57660		

REPORT ON FIELD HILF DENSITY - NUCLEAR METER

Client:	Golding		Job No:	J25/11
Client Address:	58 Union Circuit, Yatala QLD 4207		Date:	7-May-25
Project:	Riverbank Estate - Stage 22A		Tested by:	CB
Location:	Caboolture, Qld		Checked:	LW
Report Number:	7	Page	1 of 1	Order No: Jason T

Test Methods	AS 1289 5.8.1/5.7.1/5.1.1		
Sample Method	Earthworks Layer (Compact) AS1289 1.2.1 (6.4(b))		
Lab Number	LIE/17	LIE/18	LIE/19
Test Location	Ben Crescent	Ben Crescent	Ben Crescent
	Adj Lot 1514	Adj Lot 1516	Adj Lot 1518
Layer / Elevation	Embankment Fill	Embankment Fill	Embankment Fill
Material Source	Onsite	Onsite	Onsite
Depth Tested	200	200	200
Layer Thickness	200	200	200
Date Tested	7-May-25	7-May-25	7-May-25
Time Tested	AM	AM	AM
Material Sampled	After Compaction	After Compaction	After Compaction
Material Description	Silty Clay	Silty Clay	Silty Clay
Test Results			
Insitu Wet Density (t/m ³)	1.89	1.98	1.92
Insitu Moisture Content (%)	N/A	N/A	N/A
PCWD (t/m ³)	1.96	2.05	2.01
APCWD (t/m ³)	N/A	N/A	N/A
Peak Added Moisture (%)	-0.2	-0.5	+1.7
Moisture Variation (%)	-0.2	-0.5	+1.9
Adjusted Moisture Variation (%)	N/A	N/A	N/A
Retaining Sieve (mm)	19.0	19.0	19.0
Percentage Oversize (wet)	0.0	0.0	0.0
HILF DENSITY RATIO (%)	96.5	96.5	95.5
Compaction Type	Standard	Standard	Standard
Degree of Compaction	95%	95%	95%
Remarks	Docket # 58349		

REPORT ON FIELD HILF DENSITY - NUCLEAR METER

Client:	Golding		Job No:	J25/11
Client Address:	58 Union Circuit, Yatala QLD 4207		Date:	7-May-25
Project:	Riverbank Estate - Stage 22A		Tested by:	CB
Location:	Caboolture, Qld		Checked:	LW
Report Number:	8	Page	1 of 1	Order No: Jason T

Test Methods	AS 1289 5.8.1/5.7.1/5.1.1	
Sample Method	Earthworks Layer (Compact)	AS1289 1.2.1 (6.4(b))
Lab Number	LIE/20	LIE/21
Test Location	Lot 1527	Lot 1528
	West End	West End
	Final Level	Final Level
Layer / Elevation	Allotment Fill	Allotment Fill
Material Source	Onsite	Onsite
Depth Tested	200	200
Layer Thickness	200	200
Date Tested	7-May-25	7-May-25
Time Tested	PM	PM
Material Sampled	After Compaction	After Compaction
Material Description	Silty Clay	Silty Clay
Test Results		
Insitu Wet Density (t/m ³)	1.96	1.89
Insitu Moisture Content (%)	N/A	N/A
PCWD (t/m ³)	2.02	1.99
APCWD (t/m ³)	N/A	N/A
Peak Added Moisture (%)	+1.6	+1.7
Moisture Variation (%)	+1.8	+1.9
Adjusted Moisture Variation (%)	N/A	N/A
Retaining Sieve (mm)	19.0	19.0
Percentage Oversize (wet)	0.0	0.0
HILF DENSITY RATIO (%)	97.0	95.0
Compaction Type	Standard	Standard
Degree of Compaction	95%	95%
Remarks	Docket # 58349	



Appendix 3: Typical Site Conditions



CONSTRUCTION

MATERIALS

TESTING



Appendix 4: Site Information

Important Information about your Report

As a client of Wagner Soil Testing Pty Ltd you should know that site subsurface conditions cause more construction problems than any other factor. These notes have been provided to help you interpret and understand the limitations of your report.

Your report is project specific

Your report has been developed based on your unique project specific requirements as understood by Wagner Soil Testing and applies only to the site investigated. Project criteria typically include the general nature of the project; its size and configuration; the location of any structure on the site; other site improvements; the presence of underground utilities; and the additional risk imposed by scope-of-surface limitations imposed by the client. Your report should not be used if there are any changes to the project without first asking Wagner Soil Testing to assess how factors that changed subsequent to the date of the report affect the report's recommendations. Wagner Soil Testing cannot accept responsibility for problems that may occur due to changed factors if they are not consulted. Our report does not take into account any existing filled ground or any other unforeseen subsurface conditions that may change anticipated site classification.

Subsurface conditions can change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. Do not rely on a geotechnical engineering report whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. Always contact Wagner Soil Testing before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Interpretation of factual data

Site assessment identifies actual subsurface conditions only at those points where samples are taken and when they are taken. Data derived from literature and external data source review, sampling and subsequent laboratory testing are interpreted by geologists, engineers or scientists to provide an opinion about overall site conditions, their likely impact on the proposed development and recommended actions. Actual conditions may differ from those inferred to exist, because no professional, no matter how qualified, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site conditions which exist, but steps can be taken to reduce the impact of unexpected conditions. For this reason, owners

should retain the services of Wagner Soil Testing through the development stage, to identify variances, conduct additional tests if required, and recommend solutions to problems encountered on site.

Your report will only give preliminary recommendations

Your report is based on the assumption that the site conditions as revealed through selective point sampling are indicative of actual conditions throughout an area. This assumption cannot be substantiated until project implementation has commenced and therefore your report recommendations can only be regarded as preliminary. Only Wagner Soil Testing, who prepared the report, is fully familiar with the background information needed to assess whether or not the report's recommendations are valid and whether or not changes should be considered as the project develops. If another party undertakes the implementation of recommendations of this report, there is a risk that the report will be misinterpreted, and Wagner Soil Testing cannot be held responsible for such misinterpretation.

Your report is prepared for specific purposes and persons

To avoid misuse of the information contained in your report it is recommended that you confer with Wagner Soil Testing before passing your report on to another party who may not be familiar with the background and purpose of the report. Your report should not be applied to any project other than that originally specified at the time the report was issued.

It is a requirement that the client contacts Wagner Soil Testing Pty Ltd when the exact position of the proposed building is confirmed so we can check if our Boreholes fall in the footing area [our borelogs are only presumed indicative of the whole area until this is confirmed]. In the case of a cracked house investigation more testing may be required to conclude all possible causes of settlement and or movement. Initial drilling and lab testing may only identify some of the causes of the problem. Wagner Soil Testing should be contacted when additional testing is required. It is company policy that Wagner Soil Testing are contacted if the development (including any portion and/or envelope) is sold and/or changes title as the report is only for the use of our direct client. If the development is sold and/or changes title Wagner Soil Testing must be contacted and subsequently will carry out a comprehensive site inspection – evaluation at no cost to ensure the preliminary report is relevant and no changes whatsoever have been made.