

# Cherrybrook Stages 2 and 3

11512/P/744

Prepared for fgf Developments  
28/03/2018

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## Document Information

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1	28/03/18	Rev - 2	Craig Wilson	Peter Gode

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## Introduction

Construction Sciences is the largest private provider of construction materials testing services across Australia. We have a total staff of over 600 staff in 48 permanent offices/laboratories.

We have provided QA testing services to some of the largest road and mining infrastructure projects in these states, as well as overseas.

Over the last 3 to 4 years, Construction Sciences has established more site laboratories for road, rail, mining, and other large infrastructure projects than any other company.

We benefit our clients with the following clear differentiators;

- > **Staff Mobilisation:** Construction Sciences' geographic expansion and mobility allow for teams to be available when required, and currently we have the lion's share of major projects in Australia.
- > **Quality Management:** Construction Sciences' purpose-built software, COMPLY provides our clients with confidence, by knowing project data is securely stored. COMPLY has a built-in secure audit trail and a fully tracked Quality system. We are also ISO9001 compliant and certified.
- > **Client Relationships:** We listen to your needs and respond with innovative solutions that are tailored for your business. We believe in building relationships with our staff and local community.
- > **Safety:** At Construction Sciences we embrace a 'safety' culture and it is a key consideration with every project. Currently we are over 2 years LTI (lost time injury) free.

Construction Sciences Pty Ltd was commissioned by **fgf Developments** to provide Level 1 inspection and testing services for the placement of fill at the residential development:-

**PROJECT:** Cherrybrook Stages 2 and 3

The earthworks were carried out from 1/11/2017 to 20/12/2017

The following lots were filled during these works: 206, 209, 210, 211, 301, 302, 303, 304, 305, 307, 308, 409, 410 and 504.

## Specification Requirements

Filling was carried out in accordance with AS3798-2007 '*Guidelines on earthworks for commercial and residential developments*' and with the project specification prepared for the project.

The specification requirements were that all fill was to be placed and compacted in layers to a density ratio of not less than 95% of the maximum density as determined by AS1289.5.7.1 (standard compaction).

## Site Works

The Cherrybrook Stages 2 & 3 project was a small scale cut to fill operation with approximately 2000m<sup>3</sup> of fill placed. The fill material generally comprised of sandy clay.

## Compaction Control Testing

Compaction control tests were carried out at regular intervals throughout the placement of fill in accordance with the minimum test frequency recommendations included in AS3798-2007 '*Guidelines on earthworks for commercial and residential developments*'. All test results are included in the Appendix B. A summary of the test results is included as Table 1. A total of 15 field density tests were carried out throughout the earthworks. The average density ratio was 99.4 %.

## Conclusion

It is considered that the placement of fill on lots 206, 209, 210, 211, 301, 302, 303, 304, 305, 307, 308, 409, 410 and 504 at Cherrybrook Stages 2 and 3 was carried out in a controlled manner and the fill was compacted to a density ratio not less than the specified requirement. It is concluded that the fill may be deemed to be '*controlled fill*' in accordance with AS2870 – 2011 '*Residential Slabs & Footings*'.

CONSTRUCTION SCIENCES PTY LTD



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Table 1-1 Summary of field density test results - **Cherrybrook Stages 2 and 3**

Date	Lot no.	Density ratio (2)
01/11/2017	Lot 301	96.0
01/11/2017	Lot 303	104.5
02/11/2017	Lot 409	95.5
02/11/2017	Lot 504	96.0
02/11/2017	Lot 307	97.0
02/11/2017	Lot 302	98.0
08/11/2017	Lot 304	100.5
08/11/2017	Lot 211	101.0
27/11/2017	Sew - 1	102.0
27/11/2017	Sew - 2	101.5
27/11/2017	Sew - 3	101.5
27/11/2017	Sew - 4	101.5
20/12/2017	ERC Lots 302/305	96.0
20/12/2017	Lot 410	100.0
20/12/2017	Lot 301	100.5

<b>No. of tests:</b>	15	<b>Mean:</b>	99.4 %	<b>Standard Dev:</b>	2.79 %
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**Notes:**

1. Standard laboratory compaction used, AS1289.5.7.1.

Cherrybrook Stages 2  
and 3

APPENDIX

A

FIELD DENSITY TEST  
RESULTS





## WET DENSITY RATIO REPORT

Client: fgf Developments Client Address: PO Box 6665, Cairns Project: 170803 - Cherrybrook Stg 2&3 Location: Cairns Component: level 1 Area Description: Subdivision	Report Number: 11512/R/15715-1 Project Number: 11512/P/744 Lot Number: Various Internal Test Request: 11512/T/8870 Client Reference/s: MTR997 Report Date / Page: 3/11/2017 <span style="float: right;">Page 1 of 1</span>
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Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1
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Sample Number	11512/S/43747	11512/S/43748	11512/S/43749	11512/S/43777
ID / Client ID	NS-1	NS-2	NS-3	NS-4
Lot Number	301	303	605	609
Date / Time Tested	1/11/2017	1/11/2017	1/11/2017	1/11/2017
Material Source	Existing Material	Existing Material	Existing Material	Existing Material
Material Type	Insitu Material	Insitu Material	Insitu Material	Insitu Material
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4a
Depths: Test / Nom / Actual (mm)	125 / 150 / 150	125 / 150 / 150	125 / 150 / 150	125 / 150 / 150
Standard or Modified	Standard	Standard	Standard	Standard
Allotment No	301	303	605	609
Chainage	C/L of lot	C/L of lot	C/L of lot	C/L of lot
Offset	-2.8m	2.0m	1.1m	-3.3m
Level	GST	GST	GST	GST
Test Fraction (mm)	< 19.0 mm	< 19.0 mm	< 19.0 mm	< 19.0 mm
Sample Oversize (%)	0	0	1	0
Compaction Sample Number	11512/S/43747	11512/S/43748	11512/S/43749	11512/S/43777
Sample Description	Silty Sand, Brown	Insitu Material	Silty Gravelly Sand, Brown	Silty Gravelly Sandy Clay
<b>Moisture Test Results:</b>				
Field Moisture Content (%)	11.4	12.4	13.6	12.4
Adjusted / Moisture Variation (%)	2.5	2.0	0.0	0.0
Optimum Moisture Content (%)	14.0	14.5	13.5	12.5
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)
<b>Moisture Ratio (%)</b>	<b>82.0</b>	<b>85.5</b>	<b>99.5</b>	<b>99.0</b>
<b>Density Test Results:</b>				
Field Wet Density (t/m <sup>3</sup> )	1.96	2.15	2.16	2.20
Adj/Peak Conv Wet Density (t/m <sup>3</sup> )	2.04	2.05	2.11	2.19
Density Ratio Required (%)	95	95	95	95
<b>Hiif Density Ratio (%)</b>	<b>96.0</b>	<b>104.5</b>	<b>102.5</b>	<b>100.5</b>

Remarks

	<p>The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.          Accredited for compliance with ISO/IEC 17025 - Testing</p> <p>Accreditation Number: 1986          Corporate Site Number: 11512</p>	 Approved Signatory: Stephen Smith Form ID: W5ASRep Rev 2
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## WET DENSITY RATIO REPORT

<b>Client:</b> fgf Developments <b>Client Address:</b> PO Box 6665, Cairns <b>Project:</b> 170803 - Cherrybrook Stg 2&3 <b>Location:</b> Cairns <b>Component:</b> Level 1 <b>Area Description:</b> Subdivision	<b>Report Number:</b> 11512/R/15745-1 <b>Project Number:</b> 11512/P/744 <b>Lot Number:</b> <b>Internal Test Request:</b> 11512/T/8884 <b>Client Reference/s:</b> MTR998 <b>Report Date / Page:</b> 6/11/2017 <span style="float: right;">Page 1 of 1</span>
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<b>Test Procedures:</b>	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1
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Sample Number	11512/S/43779	11512/S/43780	11512/S/43781	11512/S/43782
ID / Client ID	GF-1	GF-2	GF-3	GF-4
Lot Number	-	-	-	-
Date / Time Tested	2/11/2017	2/11/2017	2/11/2017	2/11/2017
Material Source	Existing Material	Existing Material	Existing Material	Existing Material
Material Type	Cut / Fill	Cut / Fill	Cut / Fill	Cut / Fill
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b
Depths: Test / Nom / Actual (mm)	125 / 150 / 150	125 / 150 / 150	125 / 150 / 150	125 / 150 / 150
Standard or Modified	Standard	Standard	Standard	Standard
Lot No.	409	504	307	302
Location	4m from Back Boundary	5m from Back Boundary	5m from Side Boundary	C/L of Lot
RL	54.3	53.7	53.2	52.6
Test Fraction (mm)	< 19.0 mm	< 19.0 mm	< 19.0 mm	< 19.0 mm
Sample Oversize (%)	8	3	7	3
Compaction Sample Number	11512/S/43779	11512/S/43780	11512/S/43781	11512/S/43782
Sample Description	Silty Gravelly Clay, Brown	Silty Gravelly Clay, Brown	Silty Gravelly Clay, Brown	Silty Gravelly Clay, Brown
<b>Moisture Test Results:</b>				
Field Moisture Content (%)	12.2	12.1	11.5	10.7
Adjusted / Moisture Variation (%)	-2.0	-2.5	-0.5	-0.5
Optimum Moisture Content (%)	10.0	9.5	11.0	10.0
Moisture Variation from OMC	(Wetter than OMC)	(Wetter than OMC)	(Wetter than OMC)	(Wetter than OMC)
<b>Moisture Ratio (%)</b>	<b>124.5</b>	<b>128.5</b>	<b>106.5</b>	<b>106.0</b>
<b>Density Test Results:</b>				
Field Wet Density (t/m <sup>3</sup> )	2.20	2.20	2.23	2.26
Adj/Peak Conv Wet Density (t/m <sup>3</sup> )	2.31	2.29	2.29	2.30
Density Ratio Required (%)	95	95	95	95
<b>Hilf Density Ratio (%)</b>	<b>95.5</b>	<b>96.0</b>	<b>97.0</b>	<b>98.0</b>

Remarks

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## LOT REPORT - WET DENSITY RATIO

<b>Client:</b> fgf Developments <b>Client Address:</b> PO Box 6665, Cairns <b>Project:</b> 170803 - Cherrybrook Stg 2&3 <b>Location:</b> Cairns <b>Component:</b> Soil Testing Level 1 <b>Area Description:</b> Subdivision	<b>Report Number:</b> 11512/R/15846-1 <b>Project Number:</b> 11512/P/744 <b>Lot Number:</b> <b>Internal Test Request:</b> 11512/T/8925 <b>Client Reference/s:</b> MTR999 <b>Report Date / Page:</b> 10/11/2017 <span style="float: right;">Page 1 of 2</span>
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<b>Test Procedures:</b>	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1
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Sample Number	11512/S/44065	11512/S/44066	11512/S/44067	11512/S/44068
ID / Client ID	GF-5	GF-6	GF-7	GF-8
Lot Number	-	-	-	-
Date / Time Tested	8/11/2017	8/11/2017	8/11/2017	8/11/2017
Material Source	Cut/Fill	Cut/Fill	Cut/Fill	Cut/Fill
Material Type	Fill Material	Fill Material	Fill Material	Fill Material
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b
Depths: Test / Nom / Actual (mm)	125 / 150 / 150	125 / 150 / -	125 / 150 / -	125 / 150 / -
Standard or Modified	Standard	Standard	Standard	Standard
Lot No.	304	211	604	607
Location	C/L of Lot	C/L of Lot	2m from Back Boundary	2m from Back Boundary
RL	52.4	53.7	52.8	53.4
Test Fraction (mm)	< 19.0 mm	< 19.0 mm	< 19.0 mm	< 19.0 mm
Sample Oversize (%)	0	0	0	0
Compaction Sample Number	11512/S/44065	11512/S/44066	11512/S/44067	11512/S/44068
Sample Description	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay
<b>Moisture Test Results:</b>				
Field Moisture Content (%)	12.7	8.6	11.1	10.0
Adjusted / Moisture Variation (%)	0.0	2.0	2.0	0.0
Optimum Moisture Content (%)	12.5	10.5	13.0	10.0
Moisture Variation from OMC	(at OMC)	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)
<b>Moisture Ratio (%)</b>	<b>100.0</b>	<b>82.5</b>	<b>84.0</b>	<b>99.0</b>
<b>Density Test Results:</b>				
Field Wet Density (t/m <sup>3</sup> )	2.15	2.21	2.20	2.14
Adj/Peak Conv Wet Density (t/m <sup>3</sup> )	2.14	2.19	2.19	2.14
Density Ratio Required (%)	95	95	95	95
<b>Hilf Density Ratio (%)</b>	<b>100.5</b>	<b>101.0</b>	<b>100.0</b>	<b>100.0</b>

Remarks

	<p>The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.          Accredited for compliance with ISO/IEC 17025 - Testing</p> <p>Accreditation Number: 1986          Corporate Site Number: 11512</p>	 <p>Approved Signatory: Stephen Smith          Form ID: W5ASRepSum Rev 4</p>
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## LOT REPORT - WET DENSITY RATIO

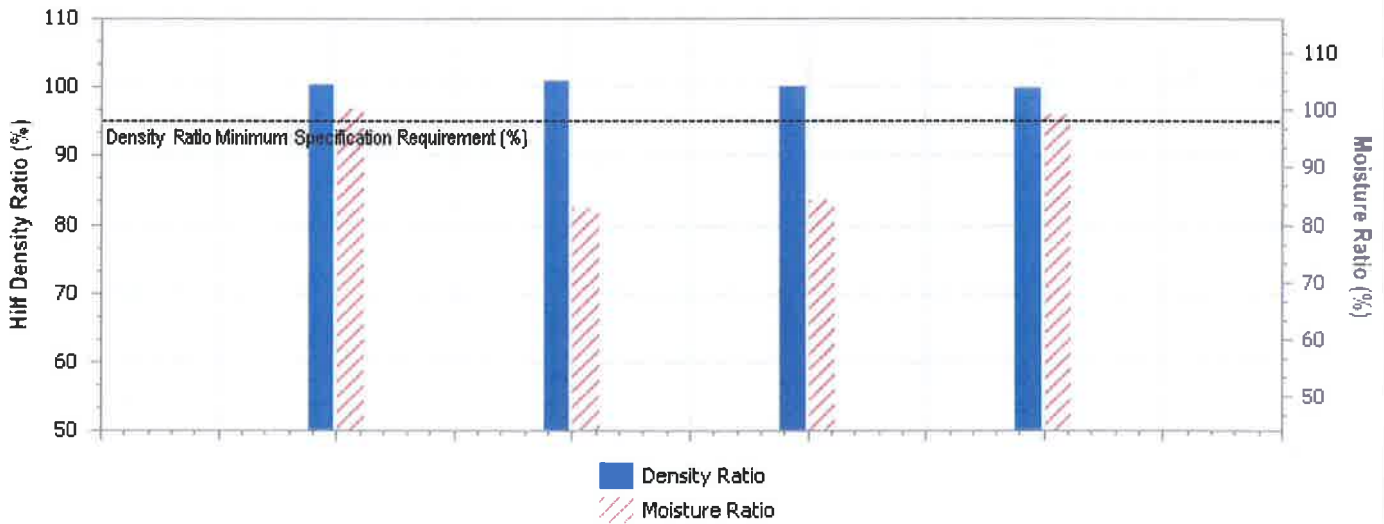
Client: fgf Developments	Report Number: 11512/R/15846-1
Client Address: PO Box 6665, Cairns	Project Number: 11512/P/744
Project: 170803 - Cherrybrook Stg 2&3	Lot Number:
Location: Cairns	Internal Test Request: 11512/T/8925
Component: Soil Testing Level 1	Client Reference/s: MTR999
Area Description: Subdivision	Report Date / Page: 10/11/2017 <span style="float: right;">Page 2 of 2</span>

Test Procedures:	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1
Statistical Analysis Test Method:	Lot Average (Lot average calculations are not covered by NATA endorsement)

### Nuclear Gauge Calibration Details

Calibration Number	-	Material Source	-
Calibration Last Updated	-	Material Type	-
Nominated Calibration Layer Depth (mm)	-		



### LOT TEST RESULT SUMMARY



Tests in Lot = 4	Lot Minimum	Lot Maximum	Lot Mean	Standard Deviation
Moisture Ratio (%)	82.7	100.0	91.4	9.322
Hilf Density Ratio (%)	99.9	100.8	100.2	0.408

**Lot Number:** -  
**Mean Density Ratio (%):** 100.2  
**Mean Moisture Ratio (%):** 91.4

Remarks



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## WET DENSITY RATIO REPORT

<b>Client:</b> fgf Developments <b>Client Address:</b> PO Box 6665, Cairns <b>Project:</b> 170803 - Cherrybrook Stg 2&3 <b>Location:</b> Cairns <b>Component:</b> Field Density <b>Area Description:</b> Sewer Back-Fill Line	<b>Report Number:</b> 11512/R/16896-1 <b>Project Number:</b> 11512/P/744 <b>Lot Number:</b> Sewer Line <b>Internal Test Request:</b> 11512/T/9091 <b>Client Reference/s:</b> TR 875 <b>Report Date / Page:</b> 11/01/2018 <span style="float: right;">Page 1 of 1</span>
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<b>Test Procedures:</b>	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1
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Sample Number	11512/S/45242	11512/S/45243	11512/S/45244	11512/S/45245
ID / Client ID	SEW - 1	SEW - 2	SEW - 3	SEW - 4
Lot Number	Sewer Line	Sewer Line	Sewer Line	Sewer Line
Date / Time Tested	27/11/2017 15:00	27/11/2017 15:10	27/11/2017 15:20	27/11/2017 15:30
Material Source	Insitu Material	Insitu Material	Insitu Material	Insitu Material
Material Type	-	-	-	-
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b
Depths: Test / Nom / Actual (mm)	200 / 225 / -	200 / 225 / -	200 / 225 / -	200 / 225 / -
Standard or Modified	Standard	Standard	Standard	Standard
Road	Sewer Line	Sewer Line	Sewer Line	Sewer Line
Chainage	60m From m/h 16/2	75m From m/h 1/19	10m From m/h 4/2	35m From m/h 1/18
Offset	c/l	c/l	c/l	c/l
Level	RL 54.2	RL 53.4	RL 52.4	RL 51.9
Test Fraction (mm)	< 19.0 mm	< 19.0 mm	< 19.0 mm	< 19.0 mm
Sample Oversize (%)	1	2	2	2
Compaction Sample Number	11512/S/45242	11512/S/45243	11512/S/45244	11512/S/45245
Sample Description	Sandy Gravelly Clay	Sandy Gravelly Clay	Sandy Gravelly Clay	Sandy Gravelly Clay
<b>Moisture Test Results:</b>				
Field Moisture Content (%)	11.1	9.9	9.6	9.5
Adjusted / Moisture Variation (%)	2.0	1.5	1.0	1.5
Optimum Moisture Content (%)	13.0	11.5	10.5	11.5
Moisture Variation from OMC	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)	(Drier than OMC)
<b>Moisture Ratio (%)</b>	<b>85.5</b>	<b>87.0</b>	<b>90.5</b>	<b>84.0</b>
<b>Density Test Results:</b>				
Field Wet Density (t/m <sup>3</sup> )	2.26	2.26	2.27	2.28
Adj/Peak Conv Wet Density (t/m <sup>3</sup> )	2.21	2.22	2.24	2.24
Density Ratio Required (%)	-	-	-	-
<b>Hilf Density Ratio (%)</b>	<b>102.0</b>	<b>101.5</b>	<b>101.5</b>	<b>101.5</b>

	<p style="text-align: center; font-size: small;">The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards. Accredited for compliance with ISO/IEC 17025 - Testing</p> <p>Accreditation Number: 1986 Corporate Site Number: 11512</p>	 <p>Approved Signatory: Craig Wilson Form ID: W5ASRep Rev 2</p>
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## DRY DENSITY RATIO / MOISTURE RATIO REPORT

<b>Client:</b> fgf Developments <b>Client Address:</b> PO Box 6665, Cairns <b>Project:</b> 170803 - Cherrybrook Stg 2&3 <b>Location:</b> Cairns <b>Component:</b> Field Densities <b>Area Description:</b> Cherrybrook Estate	<b>Report Number:</b> 11512/R/17340-1 <b>Project Number:</b> 11512/P/744 <b>Lot Number:</b> <b>Internal Test Request:</b> 11512/T/9307 <b>Client Reference/s:</b> MTR-651 <b>Report Date / Page:</b> 14/02/2018 <span style="float: right;">Page 1 of 1</span>
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<b>Test Procedures:</b>	AS1289.5.4.1, AS1289.5.1.1, AS1289.5.8.1, AS1289.2.1.1
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Sample Number	11512/S/46341			
ID / Client ID	MTR-651			
Lot Number	-			
Date / Time Tested	20/12/2017 09:00			
Material Source	PNQ - Edmonton			
Material Type	Crusher Dust			
Sampling Method	AS1289.1.2.1 Cl 6.4b			
Depths: Test / Nom / Actual (mm)	125 / 150 / 150			
Standard or Modified	Standard			
Stabilised Material Curing Time	-			
	Electrical Road Crossing @ SG Le To Lots 302 & 305 O/S: +1.5m Test Location Selected By Client			
Test Fraction (mm)	< 19.0 mm			
Sample Oversize Wet (%)	0			
Sample Oversize Dry (%)	0			
MDR Sample Number	11512/S/46341			
MDR Sample Date / Update	20/12/2017			
Assigned MDR (Yes / No)	No			
<b>Moisture Test Results:</b>				
Field Moisture Content (%)	5.4			
Optimum Moisture Content (%)	9.5			
Variation from OMC (%)	4.0% Drier than OMC			
<b>Moisture Ratio (%)</b>	<b>58.0</b>			
<b>Density Test Results:</b>				
Field Dry Density (t/m <sup>3</sup> )	2.21			
Maximum Dry Density (t/m <sup>3</sup> )	2.30			
Dry Density Ratio Required (%)	95			
<b>Dry Density Ratio (%)</b>	<b>96.0</b>			

Remarks

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	Accreditation Number: 1986 Corporate Site Number: 11512	



## WET DENSITY RATIO REPORT

<b>Client:</b> fgf Developments <b>Client Address:</b> PO Box 6665, Cairns <b>Project:</b> 170803 - Cherrybrook Stg 2&3 <b>Location:</b> Cairns <b>Component:</b> Field Densities <b>Area Description:</b> Cherrybrook Estate	<b>Report Number:</b> 11512/R/17341-1 <b>Project Number:</b> 11512/P/744 <b>Lot Number:</b> Various <b>Internal Test Request:</b> 11512/T/9330 <b>Client Reference/s:</b> MTR-651 <b>Report Date / Page:</b> 14/02/2018 <span style="float: right;">Page 1 of 1</span>
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<b>Test Procedures:</b>	AS1289.5.7.1, AS1289.5.8.1, AS1289.2.1.1
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Sample Number	11512/S/46440	11512/S/46441	11512/S/46442	
ID / Client ID	GF-12	GF-13	GF-14	
Lot Number	Lot 410	Lot 301	Lot 607	
Date / Time Tested	20/12/2017 10:25	20/12/2017 10:25	20/12/2017 10:25	
Material Source	Cut/Fill	Cut/Fill	Cut/Fill	
Material Type	General Fill	General Fill	General Fill	
Sampling Method	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	AS1289.1.2.1 Cl 6.4b	
Depths: Test / Nom / Actual (mm)	125 / 150 / 150	125 / 150 / 150	125 / 150 / 150	
Standard or Modified	Standard	Standard	Standard	
Latitude	-17.006953	-17.006729	-17.006477	
Longitude	145.716053	145.715713	145.715382	
Level				
Location	Test locations selected by client.	Test locations selected by client.	Test locations selected by client.	
Test Fraction (mm)	< 19.0 mm	< 19.0 mm	< 19.0 mm	
Sample Oversize (%)	0	0	0	
Compaction Sample Number	11512/S/46440	11512/S/46441	11512/S/46442	
Sample Description	Gravelly Silt, Brown	Silty Gravel	Gravelly Silt, Brown	
<b>Moisture Test Results:</b>				
Field Moisture Content (%)	10.4	9.5	11.9	
Adjusted / Moisture Variation (%)	-0.5	0.5	-3.0	
Optimum Moisture Content (%)	9.5	10.0	9.0	
Moisture Variation from OMC	(Wetter than OMC)	(Drier than OMC)	(Wetter than OMC)	
<b>Moisture Ratio (%)</b>	<b>107.0</b>	<b>93.0</b>	<b>131.0</b>	
<b>Density Test Results:</b>				
Field Wet Density (t/m <sup>3</sup> )	2.21	2.18	2.16	
Adj/Peak Conv Wet Density (t/m <sup>3</sup> )	2.20	2.17	2.23	
Density Ratio Required (%)	95	95	95	
<b>Hilf Density Ratio (%)</b>	<b>100.0</b>	<b>100.5</b>	<b>97.0</b>	

Remarks

	<p>The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.          Accredited for compliance with ISO/IEC 17025 - Testing</p> <p>Accreditation Number: 1986          Corporate Site Number: 11512</p>	 Approved Signatory: Craig Wilson Form ID: W5ASRep Rev 2
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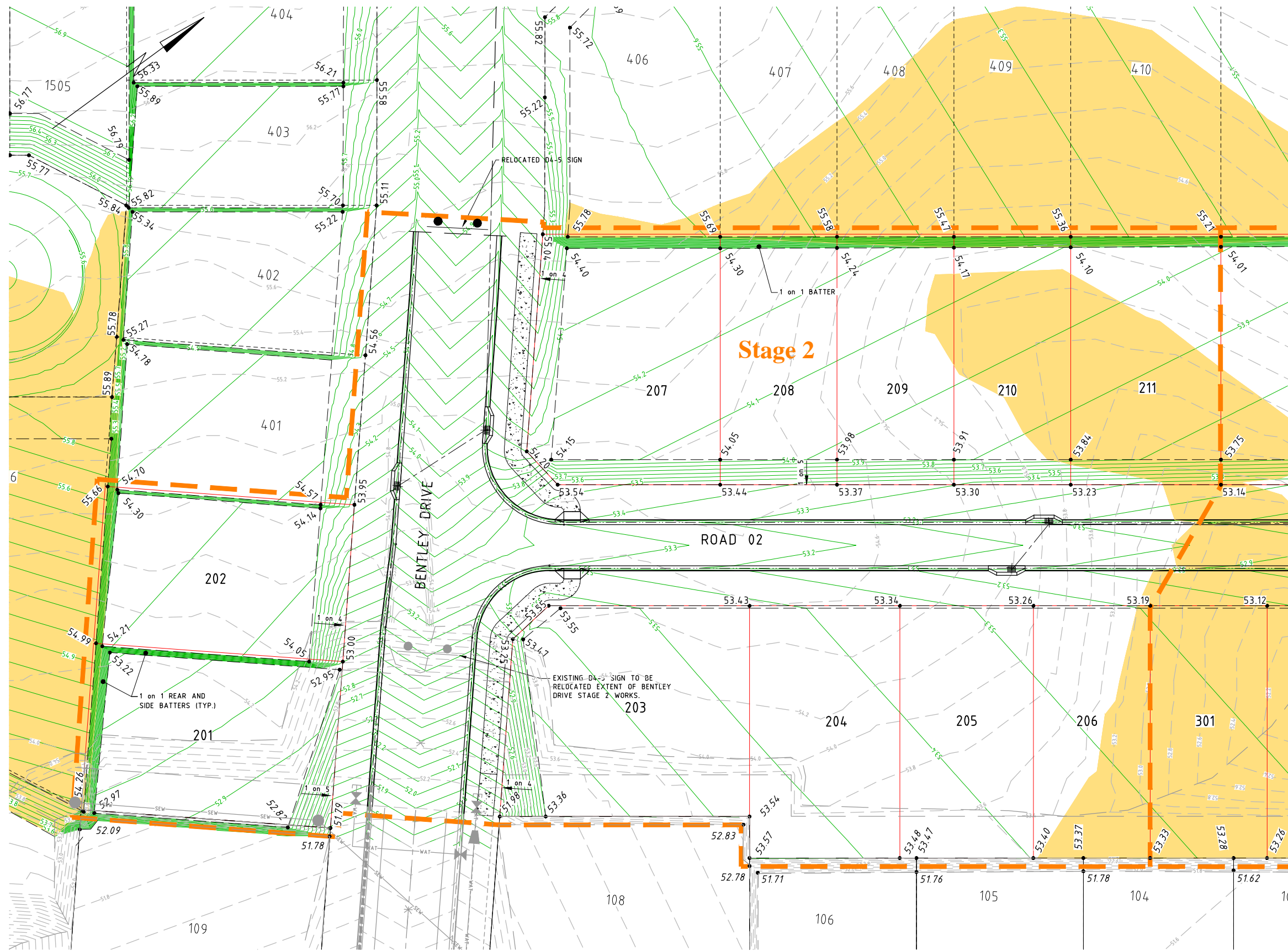
Cherrybrook Stages 2  
and 3

APPENDIX

B

ALLOTMENT FILL  
MAP





### LEGEND

- 18.70 FINISHED SURFACE LEVEL
- 18.68 NATURAL SURFACE LEVEL
- EXISTING PROPERTY BOUNDARIES
- EXISTING SURFACE CONTOURS
- EXISTING BATTER CHANGE IN GRADE
- EXISTING ROAD CROWN
- EXISTING KERBING
- EXISTING CONCRETE FOOTPATH
- EXISTING STORMWATER PIPES
- EXISTING SEWER AND MH
- EXISTING WATER MAIN VALVE AND ENDCAP
- NEW BATTER
- DESIGN SURFACE CONTOURS
- NEW ROAD CROWN
- NEW LAYBACK KERB AND CHANNEL
- NEW STORMWATER STRUCTURES - MH AND KERB INLET PIT
- NEW DRAINAGE PIPES
- PROPOSED LOT BOUNDARIES
- FUTURE LOT BOUNDARIES
- AREA OF FILL
- KERB RAMP AND CONCRETE FOOTPATH
- STAGE BOUNDARY

FOR EARTHWORKS, SUBGRADE AND FILL NOTES REFER TO DRG 15495-C202.  
 FOR TYPICAL STAGE INTERFACE BATTER DETAILS REFER TO DRG 15495-C204.

PLAN  
1:250

ISSUE	DESCRIPTION	DATE
D	TITLEBLOCK REVISED	08.06.17
C	EARTHWORKS REVISED	24.05.17
B	TEMPORARY DRAIN AMMEDED	12.05.16
A	FOR COUNCIL SUBMISSION	15.02.16

Drawing Status  
**FOR CONSTRUCTION**

SCALE 1:250  
 DO NOT SCALE DRAWINGS  
 Scales Before Reduction

Orig. Sheet A1

**JACOBS**

ABN 37 001 024 095 and ACN 001 024 095  
 Jacobs Group (Australia) Pty Ltd  
 2 James Street  
 CAIRNS, QLD 4870  
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 Web: www.jacobs.com

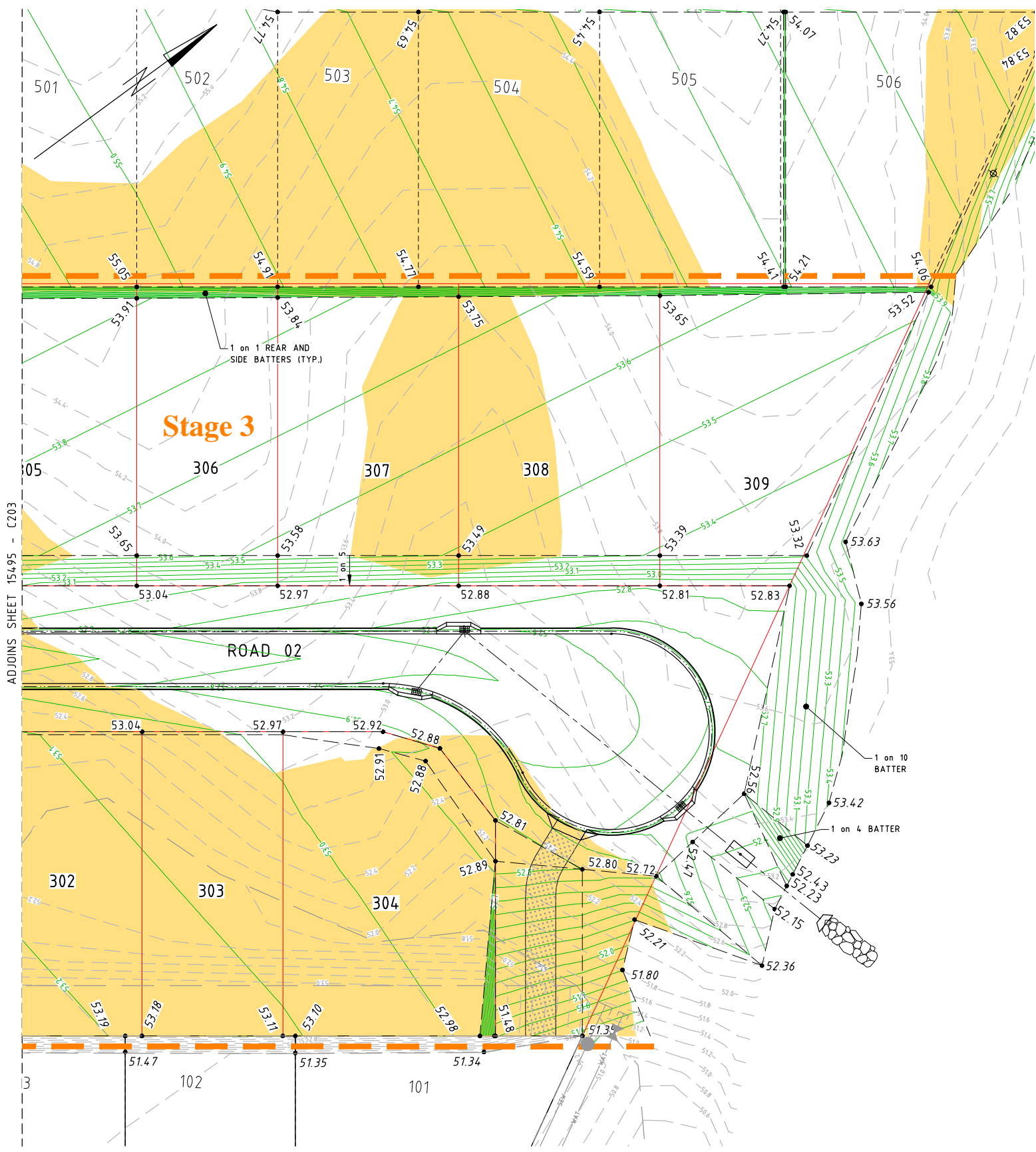
Client  
**WALKER ROAD PTY LTD**

Project  
**CHERRYBROOK STAGES 2 AND 3**

Drawing Title  
**EARTHWORKS PLAN SHEET 1 OF 2**

Drawn	Designed	Verified
JP	PAM	RJB
Approved RJC		Date JUN 2017
Drawing Number 15495 - C203		Revision D





ADJOINS SHEET 15495 - C203

**Stage 3**

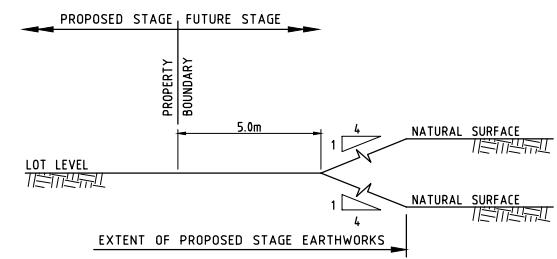
ROAD 02

**PLAN**  
1:250

**LEGEND**

- 18.70 FINISHED SURFACE LEVEL
- 18.68 NATURAL SURFACE LEVEL
- EXISTING PROPERTY BOUNDARIES
- EXISTING SURFACE CONTOURS
- EXISTING BATTER CHANGE IN GRADE
- EXISTING ROAD CROWN
- EXISTING KERBING
- EXISTING CONCRETE FOOTPATH
- EXISTING STORMWATER PIPES
- EXISTING SEWER AND MH
- EXISTING WATER MAIN VALVE AND ENDCAP
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- NEW STORMWATER STRUCTURES - MH AND KERB INLET PIT
- NEW DRAINAGE PIPES
- PROPOSED LOT BOUNDARIES
- FUTURE LOT BOUNDARIES
- AREA OF FILL
- STAGE BOUNDARY

FOR EARTHWORKS, SUBGRADE AND FILL NOTES REFER TO DRG 15495-C202.



**TYPICAL SECTION - INTERFACE BATTER DETAILS**  
N.T.S.

ISSUE	DESCRIPTION	DATE
D	TITLEBLOCK REVISED	08.06.17
C	EARTHWORKS REVISED	24.05.17
B	TEMPORARY DRAIN AMMEDED - 0100 SWALE AMMEDED	12.05.16
A	FOR COUNCIL SUBMISSION	15.02.16

Drawing Status  
**FOR CONSTRUCTION**

SCALE 1:250  
Orig. Sheet A1  
DO NOT SCALE DRAWINGS  
Scales Before Reduction  
2.5 0 2.5 5 7.5 10 12.5 m

**JACOBS**  
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Client  
**WALKER ROAD  
PTY LTD**

Project  
**CHERRYBROOK  
STAGES 2 AND 3**

Drawing Title  
**EARTHWORKS PLAN  
SHEET 2 OF 2**

Drawn	Designed	Verified
JP	PAM	RJB
Approved RJC		Date JUN 2017
Drawing Number 15495 - C204		Revision D

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