

Job No. 202404

26<sup>th</sup> of August 2024

BMD Urban Pty Ltd PO Box 197 WYNNUM CENTRAL QLD 4178

Attn Alex Wood

#### RE: LILYWOOD LANDINGS – STAGE 1A & 1B CABOOLTURE RIVER ROAD – UPPER CABOOLTURE (Bulk Earthworks – Geotechnical Inspection & Testing)

#### SCOPE

Brisbane Soil Testing were commissioned by BMD Urban Pty Ltd to provide geotechnical inspection and testing of the bulk earthworks - allotment fill, embankment fill, road fill, southern swale fill, and swale batter fill (well) on the above stage subdivision.

Some filling was required as part of the development and for this work, our site presence was maintained in accordance with AS3798-2007 "Guidelines on Earthworks for Commercial and Residential Developments" Appendix B, "Level 1". As directed the scope of the Level 1 inspection and testing was:

- (i) check adequacy of pre-fill ground preparation
- (ii) remove unsuitable materials
- (iii) inspect and carry out compaction control testing of placed fill materials
- (iv) provide R.P.E.Q. Certification

#### CONTROL INSPECTION AND TESTING

An inspection of the areas to be filled was carried out on the 1<sup>st</sup> of March 2024 and on an ongoing basis as the job progressed, by Brisbane Soil Testing staff.

On-site materials were used for filling and these materials were generally placed in 0.20m loose horizontal layers and compacted with an 815 compactor.

An existing water well located in Road 03 CH118 was decommissioned, then supervised and tested via a level 1 inspection and testing commission. (Level 1 report attached).

Sixty-eight field density tests were carried between the 4<sup>th</sup> of March 2024 and the  $31^{st}$  of July 2024. These tests recorded Dry Density Ratios between 95.5% and 103.5% relative to the standard compaction test and field moisture contents within –2.5% and +3.5% of their respective optimum moisture contents, AS1289.5.1.1.

Attached documents B194/4 (Report Nos. 49502, 49547, 49548, 49558, 49559, 49568, 49569, 49570, 49582, 49603, 49604, 49684, 49687, 49690, 49693, 49764, 49765, 49768, 49841, 49940, 49941, 49964 & 50161) provide full test data for the compaction control tests.

The locations of all tests taken are shown on the attached drawing numbers 1211, 1212, 1214, 1215 and 1216 Revision D, titled "Stage 1A & 1B Bulk Earthworks Test Locations".

No fill was placed on lots 10-14 and 23-52 during our Level 1 inspection and testing commission.

#### CONCLUSION

Based on the test results and site inspections, we conclude that the fill foundation is considered to comply with requirements of Table 5.1- Item 1 & 3 of AS3798-2007 and the project specifications.

We confirm that all vegetation and topsoil was removed, and that a sound base for the proposed filling was provided. We further confirm that all filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

GREG McGRANN MANAGING DIRECTOR BRISBANE SOIL TESTING

**Attachments:** 

Level 1 Test Locations

Individual Allotment Certificates

Field Density Test Reports

Level 1 Report (Existing Water Wells) - Stages 1A & 1B & 23 Dated 14/08/2024

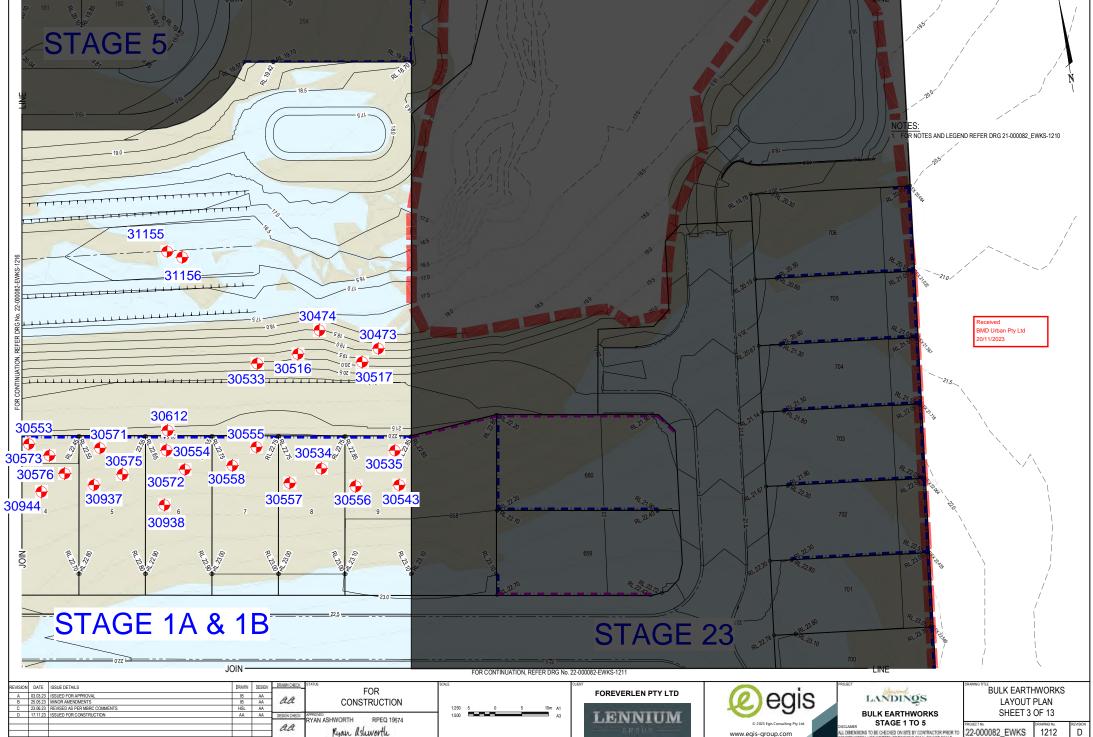


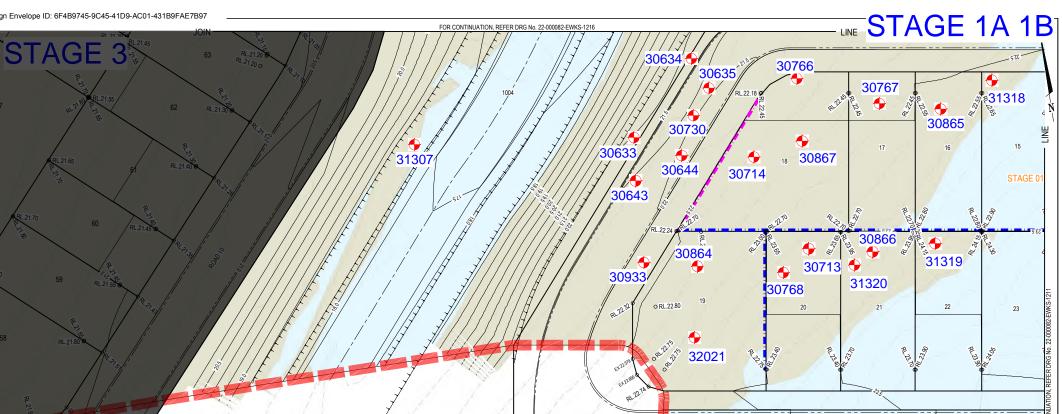
#### **Brisbane Soil Testing**

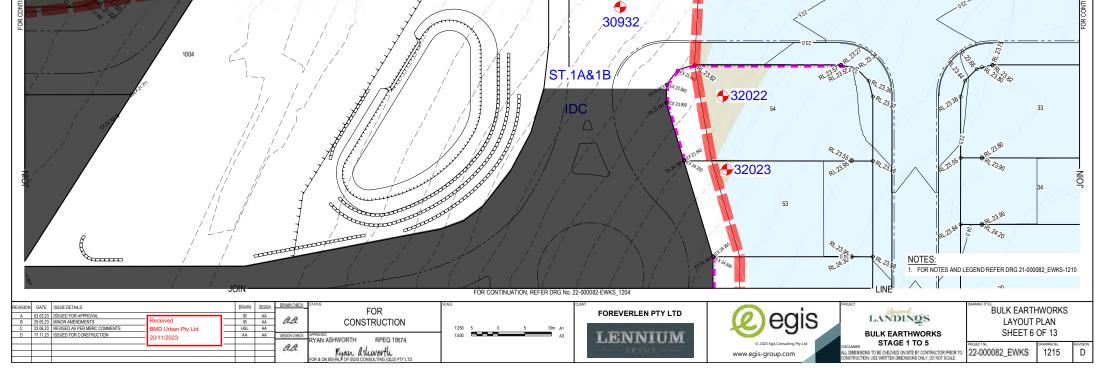
20/1191 Anzac Ave Kallangur, Q. 4503

SAM JEYAN GEOTECHNICAL ENGINEER <u>BRISBANE SOIL TESTING</u> RPEQ. No. 13339 GEOTECHNICAL

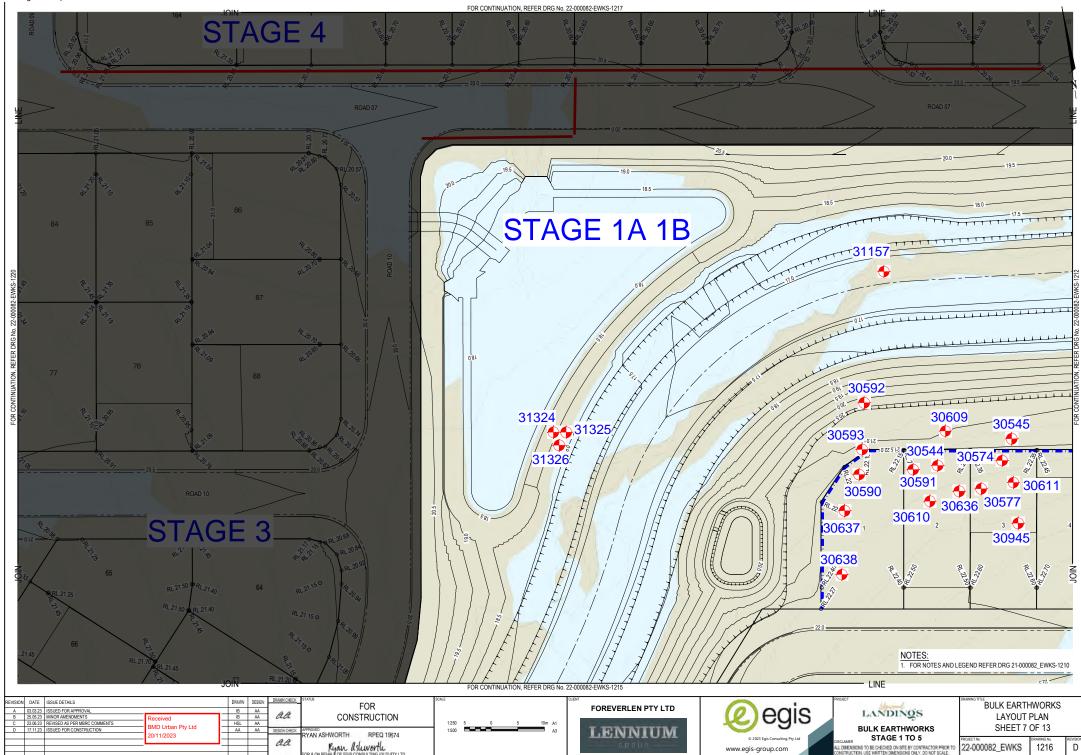
## DOCUSIGN Envelope ID: 6F4B9745-9C45-41D9-AC01-431BE STAGE 1A & 1B BULK EARTHWORKS TEST LOCATIONS



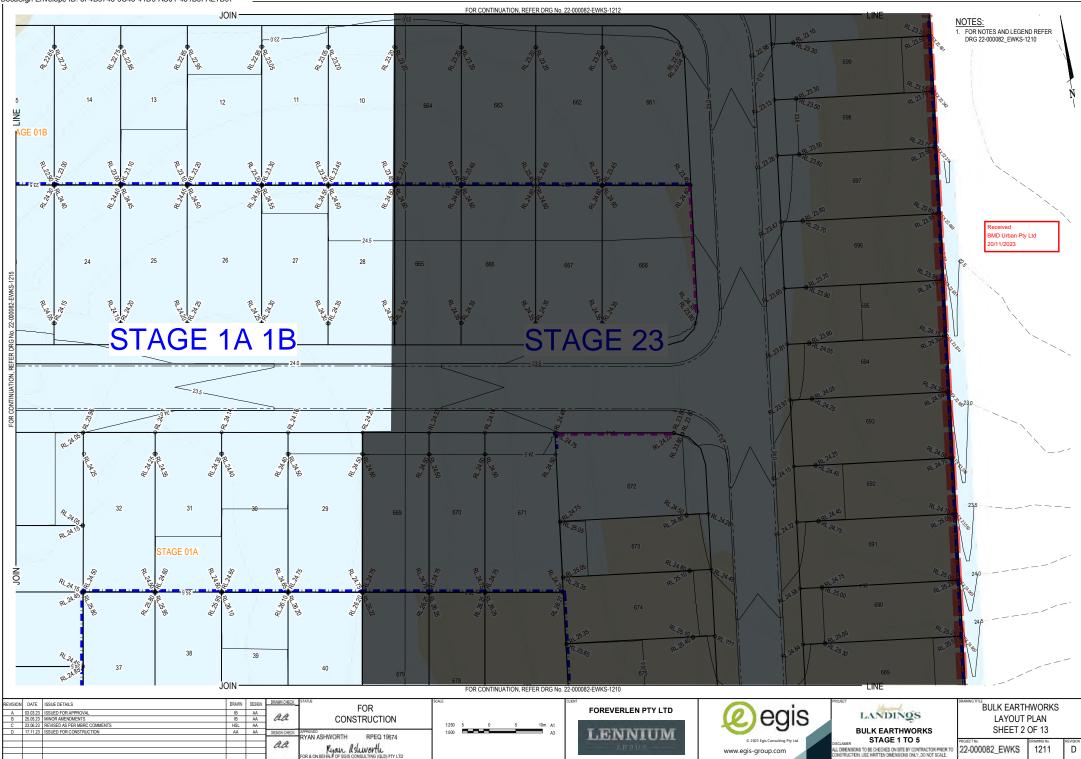




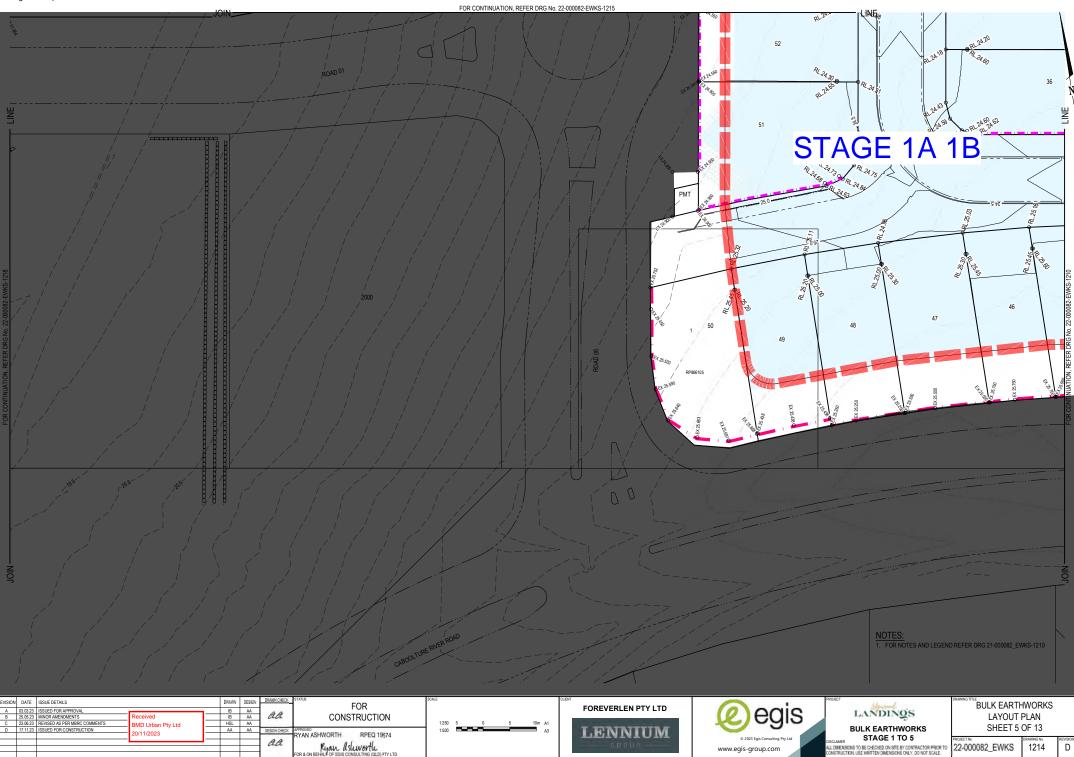
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17 August 2024

BMD Urban Pty Ltd PO Box 197 WYNNUM CENTRAL QLD 4178

#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 1

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 1 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 1 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



17 August 2024

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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 2

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 2 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 2 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 3

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 3 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 3 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 4

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 4 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 4 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

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17 August 2024

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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 5

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 5 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 5 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 6

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 6 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 6 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



17 August 2024

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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 7

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 7 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 7 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 8

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 8 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 8 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



17 August 2024

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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 9

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 9 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 9 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



17 August 2024

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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 15

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 15 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 15 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



17 August 2024

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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 16

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 16 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 16 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



17 August 2024

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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 17

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 17 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 17 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



17 August 2024

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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 18

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 18 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 18 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



17 August 2024

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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 19

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 19 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 19 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



17 August 2024

BMD Urban Pty Ltd PO Box 197 WYNNUM CENTRAL QLD 4178

#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 20

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 20 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 20 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



17 August 2024

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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 21

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 21 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 21 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



17 August 2024

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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 22

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 22 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 22 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



17 August 2024

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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 53

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 53 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 53 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



17 August 2024

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#### RE: CONTROLLED FILL CERTIFICATE LOCATION: LILYWOOD LANDINGS – STAGE 1A & 1B

LOT NO. 54

Brisbane Soil Testing were commissioned on this project to provide geotechnical earthworks inspection and testing services on a Level 1 basis as detailed in Clause 8.2 of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments". Full details of the inspection and testing program are provided in the Brisbane Soil Testing Level 1 Report dated 18th of August 2024

Based on the test results and site inspections, Brisbane Soil Testing concludes that all fill on Lot 54 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 Item 1 of AS3798-2007 and the project specifications.

We further confirm that all fill to design final level on Lot 54 (excluding topsoil placed subsequent to completion of controlled filling) can be termed "Controlled Fill" in accordance with AS2870-2011 "Residential Slabs and Footings" (Clause 6.4.2 (a)) via a Level 1 inspection and testing commission.

Greg McGrann Managing Director Brisbane Soil Testing



Ph.(07) 3285 6536

## **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49502
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	04/03/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
30473	10:00	150	EMBANKMENT FILL LOC ON ATT PLAN R.L. 18.01	30473 Material Des	- cription: REDDI	20.5 SH BROWN	21.5 SILTY SA	A <del>dj.</del> 1.0 DRY NDY CLAY	2.07	<del>Adj.</del> 2.05	101.0
30474	10:30	150	EMBANKMENT FILL LOC ON ATT PLAN R.L. 17.62	30474	- cription: REDDI	24.0	24.5	Adj. 0.5 DRY	1.95	<del>Adj</del> . 2.02	96.5
				MaterialDa				<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:			Adj.		<del>Adj</del> .	
				Material Description:							
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:			•			
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:								Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	39 5.1.1, 5.3	.1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm					
Prepared By: Date: 05/03/	at Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1   pared By: G MCGRANN   acked By: G MCGRANN   acked By: G MCGRANN   acked By: G MCGRANN		Accreditation No.2	Accredited for compli Results relate only to	ance with ISO/IE	C 17025 – Testin	Approv	AcGrann/Ma ved Signato 05/03/2024	- 1010	uch-	



Ph.(07) 3285 6536

## **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49547
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	13/03/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
30516	13:30	150	EMBANKMENT FILL LOC ON ATT PLAN R.L. 18.63	30516 Material Des	- cription: REDDI	20.0 SH BROWN	17.5 I SILTY CL	Adj. 2.5 WET AY	2.06	<del>Adj.</del> 2.11	97.5
30517	13:50	150	EMBANKMENT FILL LOC ON ATT PLAN R.L. 18.86	30517	- cription: REDDI	19.0	18.5	Adj. 0.5 WET	2.04	<del>Adj</del> . 2.08	98.0
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:			Adj.		Adj.	
				Material Description:							
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:	1					
Remarks:					-			Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	<u>89 5.1.1, 5.3</u>	.1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm					
Date: 19/03/	st Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1   spared By: G MCGRANN   secked By: G MCGRANN   4/4   Page 1 of 1		Accreditation No.2	Accredited for compli Results relate only to 2415		C 17025 – Testin	Appro	AcGrann/Ma ved Signatoi 19/03/2024	- 1010	u.G.	



Ph.(07) 3285 6536

## **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49548
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	14/03/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
30533	10:30	150	EMBANKMENT FILL LOC ON ATT PLAN	30533	-	25.0	22.5	Adj. 2.5 WET	1.98	<del>Adj.</del> 2.04	97.0
			R.L. 19.47	Material Des	cription: RED SI	LTY CLAY					
30534	13:00	150	LOT 8 LOC ON ATT PLAN	30534	-	20.5	19.5	Adj. 1.0 DRY	2.06	<del>Adj</del> . 2.06	100.0
			R.L. 20.38	Material Des	cription: RED SI	LTY CLAY		4.11		4.11	
30535	13:30	150	LOT 9 LOC ON ATT PLAN	30535	-	21.0	20.5	Adj. 0.5 DRY	2.00	<del>Adj</del> . 2.06	97.0
			R.L. 20.66	Material Description: RED SILTY CLAY							
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription.						
Remarks:				Whaterhar Des				<u> </u>	· 1 D · · · '( )		
Test Procedu	res: AS128	39 5.1.1, 5.3.	1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm		Specif	led Density	Ratio 95% STD	
Prepared By: Date: 19/03/	Prepared By: G MCGRANN Date: 19/03/2024		Accredited for compliance with ISO/IEC 17025 – Testing. Results relate only to the items tested.				Grey N	Grey wicdrunn/wiunuger			
Checked By: B194/4	hecked By: G MCGRANN 94/4 Page 1 of 1		Accreditation No.2	2415				Approved Signatory Date: 19/03/2024			



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### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49558
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	15/03/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
20542	10.00	150	LOT 9	20542		17.5	16.5	Adj.	2.00	Adj.	07.0
30543	10:30	150	LOC ON ATT PLAN	30543	-	17.5	16.5	1.0 WET	2.09	2.15	97.0
			R.L. 21.13	Material Des	cription: REDDI	<u>SH BROWN</u>	SILTY CL			A 1'	
30544	13:00	150	LOT 2 LOC ON ATT PLAN	30544	-	16.5	15.0	Adj. 1.5 WET	2.09	<del>Adj</del> . 2.10	99.5
50511	15.00	150	R.L. 19.98		cription: REDDI				2.07	2.10	<i>,,,</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
			EMBANKMENT FILL					Adj.		Adj.	
30545	13:30	150	LOC ON ATT PLAN	30545	-	20.5	19.5	1.0 WET	2.03	2.09	97.0
			R.L. 19.28	Material Description: RED SILTY CLAY						•	
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
				Waterial Des				Adj.		Adj.	
								5		3	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	anintian						
Remarks:				Material Des	cription:						
Kelliarks.								Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	89 5.1.1, 5.3	.1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm					
Prepared By:	G MCGRA	ANN	·								
Date: 22/03/	2024			NATA	Accredited for compl	iance with ISO/IE	C 17025 – Testin		AcGrann/M		10
Checked By:	necked By: G MCGRANN		Results relate only to the items tested. Accreditation No.2415			Approv	Greg McGrann/Manager Approved Signatory Date: 22/03/2024				
Checked By: B194/4	EVE		Accreditation No.2	2415				•	y	0.20	



Ph.(07) 3285 6536

## **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49559
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	19/03/2024	Tested by	JM

of Test 9:15 9:40	of Test mm 150 150	Test Location LOT 4 LOC ON ATT PLAN R.L. 20.38 LOT 6	Lab Compaction N <sup>0</sup> 30553 Material Des	19mm/37.5mm Wet Basis	Moisture Content %	Moisture Content %	Variation % <del>Adj.</del>	Wet Density t/m <sup>3</sup>	Converted Wet Density t/m <sup>3</sup>	Density Ratio %
9:15	mm 150	LOC ON ATT PLAN R.L. 20.38	30553	Wet Basis			,	•	•	
	150	LOC ON ATT PLAN R.L. 20.38	30553	Wet Basis	%	%	Adi	t/m <sup>3</sup>	t/m <sup>3</sup>	%
		LOC ON ATT PLAN R.L. 20.38		-			Adi			
		R.L. 20.38		-			Auj.		<del>Adj.</del>	
9:40	150		Material Des		16.0	14.5	1.5 WET	2.07	2.15	96.5
9:40	150	LOT 6	Material Des	cription: REDDI	SH BROWN	SILTY SA	NDY CLAY			
9:40	150						<del>Adj</del> .		<del>Adj</del> .	
		LOC ON ATT PLAN	30554	-	17.0	15.5	1.5 WET	2.13	2.16	98.5
		R.L. 21.04	Material Des	cription: REDDI	SH BROWN	SILTY SA	NDY CLAY			
		LOT 7					<del>Adj</del> .		<del>Adj</del> .	
0:15	150	LOC ON ATT PLAN	30555	-	20.5	19.0	1.5 WET	2.04	2.09	97.5
		R.L. 21.14	Material Des	cription: RED SI	LTY CLAY					
		LOT 9					<del>Adj</del> .		<del>Adj</del> .	
2:30	150	LOC ON ATT PLAN	30556	-	17.5	16.5	1.0 WET	2.10	2.13	98.5
		R.L. 21.72	Material Des	cription: RED SI	LTY SAND	Y CLAY				
							5		5	
3:45	150		30557	-	20.0	18.5		2.11	2.09	101.0
		R.L. 21.53	Material Des	cription: REDDI	SH BROWN	SILTY CLA	AΥ			
		LOT 7					<del>Adj</del> .		<del>Adj</del> .	
4:20	150	LOC ON ATT PLAN	30558	-	16.0	15.0	1.0 WET	2.16	2.15	100.5
		R.L. 21.71	Material Des	cription: RED SI	LTY SAND	Y CLAY				
							Specifi	ied Density ]	Ratio 95% STD	
: AS1289	9 5.1.1, 5.3.1	1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm					
	NN	· · ·		Accredited for compli	ance with ISO/IE	C 17025 - Testing			$\cap$	10
ate: 22/03/2024 necked By: <i>G MCGRANN CCC</i>		Accredited for compliance with ISO/IEC 17025 – Testing. Results relate only to the items tested.			Greg McGrann/Manager Approved Signatory Date: 22/03/2024					
3 4 : <i>A</i> M 24	:45 :20 AS1289 ICGRAI	:45 150 :20 150 AS1289 5.1.1, 5.3. ICGRANN	:30 150 LOC ON ATT PLAN   R.L. 21.72 LOT 8   :45 150 LOC ON ATT PLAN   R.L. 21.53 LOT 7   :20 150 LOC ON ATT PLAN   R.L. 21.71 AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1   ACGRANN AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1	:30 150 LOC ON ATT PLAN 30556   R.L. 21.72 Material Des   :45 150 LOC ON ATT PLAN 30557   :45 150 LOC ON ATT PLAN 30557   :45 150 LOC ON ATT PLAN 30557   :20 150 LOC ON ATT PLAN 30558   :20 150 LOC ON ATT PLAN 30558   R.L. 21.71 Material Des   AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1 Determined of ACGRANN	:30 150 LOC ON ATT PLAN 30556 -   R.L. 21.72 Material Description: RED SI IOT 8 30557 -   :45 150 LOC ON ATT PLAN 30557 - Material Description: REDDIS   :20 150 LOC ON ATT PLAN 30558 -   :20 150 LOC ON ATT PLAN 30558 -   Material Description: RED SI R.L. 21.71 Material Description: RED SI	:30 150 LOC ON ATT PLAN R.L. 21.72 30556 - 17.5   :45 150 LOT 8 LOC ON ATT PLAN R.L. 21.53 30557 - 20.0   :45 150 LOC ON ATT PLAN R.L. 21.53 30557 - 20.0   :20 150 LOC ON ATT PLAN R.L. 21.71 30558 - 16.0   AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1 Determined on material finer than 19mm   ACGRANN Accredited for compliance with ISO/IEG Results relate only to the items tested.	:30 150 LOC ON ATT PLAN R.L. 21.72 30556 - 17.5 16.5   :45 150 LOC ON ATT PLAN R.L. 21.53 30557 - 20.0 18.5   :20 150 LOC ON ATT PLAN R.L. 21.53 30558 - 16.0 15.0   :20 150 LOC ON ATT PLAN R.L. 21.71 30558 - 16.0 15.0   AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1 Determined on material finer than 19mm   AGGRANN Accredited for compliance with ISO/IEC 17025 - Testing Results relate only to the items tested.	:30 150 LOC ON ATT PLAN R.L. 21.72 30556 - 17.5 16.5 1.0 WET   :45 150 LOC ON ATT PLAN R.L. 21.53 30557 - 20.0 18.5 1.5 WET   :45 150 LOC ON ATT PLAN R.L. 21.53 30557 - 20.0 18.5 1.5 WET   :20 150 LOT 7 LOC ON ATT PLAN R.L. 21.71 30558 - 16.0 15.0 1.0 WET   AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1 Determined on material finer than 19mm Specifi   MCGRANN Accredited for compliance with ISO/IEC 17025 - Testing. Results relate only to the items tested. Greg N	:30 150 LOC ON ATT PLAN R.L. 21.72 30556 - 17.5 16.5 1.0 WET 2.10   :45 150 LOT 8 LOC ON ATT PLAN R.L. 21.53 30557 - 20.0 18.5 1.5 WET 2.11   :45 150 LOC ON ATT PLAN R.L. 21.53 30557 - 20.0 18.5 1.5 WET 2.11   :20 150 LOC ON ATT PLAN R.L. 21.71 30558 - 16.0 15.0 1.0 WET 2.16   AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1 Determined on material finer than 19mm Specified Density Specified Density   AGRANN Accredited for compliance with ISO/IEC 17025 - Testing. Results relate only to the items tested. Greg McGrann/Mc	:30 150 LOC ON ATT PLAN R.L. 21.72 30556 - 17.5 16.5 1.0 WET 2.10 2.13   :45 150 LOC ON ATT PLAN R.L. 21.53 30557 - 20.0 18.5 1.5 WET 2.11 2.09   :45 150 LOC ON ATT PLAN R.L. 21.53 30557 - 20.0 18.5 1.5 WET 2.11 2.09   :20 150 LOC ON ATT PLAN R.L. 21.71 30558 - 16.0 15.0 1.0 WET 2.16 2.15   :20 150 LOC ON ATT PLAN R.L. 21.71 30558 - 16.0 15.0 1.0 WET 2.16 2.15   Adj. :20 150 LOC ON ATT PLAN R.L. 21.71 30558 - 16.0 15.0 1.0 WET 2.16 2.15   AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1 Determined on material finer than 19mm Specified Density Ratio 95% STD   AGRANN Accredited for compliance with ISO/IEC 17025 - Testing. Results relate only to the items tested. Greg McGrann/Manager Anarcould Grantera Material Grantera



Ph.(07) 3285 6536

## **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49568
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	20/03/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
30571	10:00	150	LOT 5 LOC ON ATT PLAN R.L. 21.67	30571 Material Des	- cription: REDDI	18.5 SH BROWN	17.5 SILTY CL	Adj. 1.0 WET AY & FINE	2.08 ROCK FRA	Adj. 2.09 GMENTS	99.5
30572	10:30	150	LOT 6 LOC ON ATT PLAN R.L. 22.23	30572 Material Des	- cription: REDDI	19.5 SH BROWN	18.5 SILTY CL	Adj. 1.0 WET AY & FINE	2.09 ROCK FRA	Adj. 2.08 GMENTS	100.5
30573	13:30	150	LOT 4 LOC ON ATT PLAN R.L. 21.08	30573	- cription: RED SI	22.0	21.5	<del>Adj</del> . 0.5 WET	2.03	<del>Adj</del> . 2.03	100.0
30574	14:00	150	LOT 3 LOC ON ATT PLAN R.L. 20.29	30574	cription: RED SI	22.0	21.0	Adj. 1.0 WET	2.00	Adj. 2.04	98.0
30575	14:40	150	LOT 5 LOC ON ATT PLAN R.L. 22.19	30575	cription: RED SI	23.0	22.0	Adj. 1.0 WET	2.08	<del>Adj</del> . 2.04	102.0
30576	15:15	150	LOT 4 LOC ON ATT PLAN R.L. 21.65	30576	cription: REDDI	20.5	18.5 I SILTY CL	Adj. 2.0 WET AY & FINE	2.09 ROCK FRA	Adj. 2.09 GMENTS	100.0
Remarks:										Ratio 95% STD	
Test Procedu Prepared By: Date: 25/03/ Checked By: B194/4	<i>G MCGRA</i> 2024	nn CL	1, 5.7.1, 2.1.1	Determined of Accreditation No.2	Accredited for compl Results relate only to	iance with ISO/IE	C 17025 – Testin;	Appro	AcGrann/Ma ved Signator 25/03/2024		4.6



## Ph.(07) 3285 6536

### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49569
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	20/03/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
			LOT 3					<del>Adj.</del>	U 111	Adj.	
30577	15:45	150	LOC ON ATT PLAN	30577	-	22.0	20.0	2.0 WET	2.11	2.06	102.5
			R.L. 21.02	Material Des	cription: REDDI	SH BROWN	SILTY CL	-			
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Description:							
								<del>Adj</del> .		<del>Adj</del> .	
				Material Description:							
								<del>Adj</del> .		<del>Adj</del> .	
				Material Description:							
Remarks:								Specif	iad Dansity	Ratio 95% STD	
Test Procedu	res: AS128	39 5.1.1, 5.3	.1, 5.7.1, 2.1.1	Determined	on material finer	than 19mm		speci	icu Delisity	Kau0 7570 SID	
Prepared By: <i>G MCGRANN</i> Date: 25/03/2024		Accredited for compliance with ISO/IEC 17025 – Testing.				<sup>g.</sup> Grea N	AcGrann/Ma	anager N	$\mathcal{D}$		
Checked By:	Checked By: G MCGRANN		Accreditation No.2	Results relate only to the items tested. Accreditation No.2415			Appro	Approved Signatory Date: 25/03/2024			



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## **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

(	Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49570
A	Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
F	Project	LILYWOOD LANDINGS - STAGE 1A & 1B	Date Tested	21/03/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
30590	10:00	150	LOT 1 LOC ON ATT PLAN	30590	_	20.0	21.5	Adj. 1.5 DRY	1.95	<del>Adj.</del> 2.03	96.0
50570	10.00	150	R.L. 19.66		cription: REDDI					2.03	2010
			LOT 2	Material Des			a illeo	Adi.		Adj.	
30591	10:30	150	LOC ON ATT PLAN	30591	-	20.0	19.0	1.0 WET	2.08	2.07	100.5
00071	10100	100	R.L. 20.02	2 0 0 7 2	cription: REDDI	= =			2.00	2107	2000
			EMBANKMENT FILL					Adj.		Adj.	
30592	12:30	150	LOC ON ATT PLAN	30592	-	21.5	23.0	1.5 WET	2.02	2.01	100.5
	R.L. 19.31				cription: RED SI	LTY CLAY					
			EMBANKMENT FILL		1			Adj.		Adj.	
30593	13:30	150	LOC ON ATT PLAN	30593	-	18.5	18.0	0.5 WET	2.05	2.10	97.5
			R.L. 21.06	Material Description: REDDISH BROWN SILTY CLAY & FINE ROCK FRAGMENTS							
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:				Material Des							
Kennarks.								Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	39 5.1.1, 5.3	1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm					
Prepared By:	G MCGRA	NN	· · · · · · · · · · · · · · · · · · ·								
Date: 25/03/				NATA	Accredited for compli	ance with ISO/IE	C 17025 Testin			$\bigcap$	10
Checked By: G MCGRANN			Results relate only to the items tested.				Appro	Greg McGrann/Manager Approved Signatory			
Checked By: B194/4	Checked By: G MCGRANN			$\mathbf{\vee}$	Results folde only to the terms tested.						



Ph.(07) 3285 6536

## **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49582
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	22/03/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
30609	11:00	150	EMBANKMENT FILL LOC ON ATT PLAN R.L. 21.06	30609 Material Des	- cription: REDDI	22.5 SH BROWN	21.5 I SILTY CL	Adj. 1.0 WET AY & FINE	2.01 ROCK FRA	Adj. 2.05 GMENTS	98.0
30610	11:30	150	LOT 2 LOC ON ATT PLAN R.L. 20.86	30610 Material Des	- cription: REDDI	21.0 SH BROWN	20.5 I SILTY CL	Adj. 0.5 WET AY & FINE	2.02 ROCK FRA	Adj. 2.07 GMENTS	97.5
30611	13:00	150	LOT 3 LOC ON ATT PLAN R.L. 21.57	30611 Material Des	- cription: REDDI	21.0 SH BROWN	20.0 I SILTY CL	Adj. 1.0 WET AY & FINE	2.08 ROCK FRA	Adj. 2.06 GMENTS	101.0
30612	13:30	150	EMBANKMENT FILL LOC ON ATT PLAN R.L. 21.60	30612	- cription: RED SI	19.0	18.0	Adj. 1.0 WET	2.11	Adj. 2.07	102.0
			K.L. 21.00					<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:			<del>Adj</del> .		<del>Adj</del> .	
Remarks:				Material Des	cription:						
	Mage A \$ 120	051152	1 5 7 1 2 1 1	Determined	an motorial finan	than 10mm		Specif	ied Density	Ratio 95% STD	
Test Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1     Prepared By:   G MCGRANN     Date:   26/03/2024     Checked By:   G MCGRANN     B194/4   Page 1 of 1			Determined on material finer than 19mm   Image: Complex					- 1010	uchan		



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## **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49603
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	02/04/2024	Tested by	GMG

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>0</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
30633	10:10	150	EMBANKMENT FILL LOC ON ATT PLAN R.L. 20.33	30633 Material Des	- cription: RED SI	23.0 LTY CLAY	21.0	Adj. 2.0 WET	2.00	<del>Adj.</del> 1.96	102.0
30634	10:50	150	EMBANKMENT FILL LOC ON ATT PLAN R.L. 21.10	30634	- cription: LIGHT	16.0	15.5 BROWN SII	Adj. 0.5 WET TY SANDY	2.31 CLAY	<del>Adj</del> . 2.16	103.0
30635	11:40	150	ROAD 03 LOC ON ATT PLAN R.L. 20.92	30635	- cription: RED SI	20.5	18.0	Adj. 2.0 WET	2.09	<del>Adj</del> . 2.09	100.0
30636	12:50	150	LOT 2 LOC ON ATT PLAN R.L. 21.74	30636	- cription: REDDI	17.5	17.0	Adj. 0.5 WET	2.16	<del>Adj</del> . 2.12	102.0
30637	13:30	150	LOT 1 LOC ON ATT PLAN R.L. 21.16	30637	- cription: RED SI	22.5	22.0	Adj. 0.5 WET	2.00	<del>Adj</del> . 2.01	99.5
30638	15:15	150	LOT 1 LOC ON ATT PLAN R.L. 21.82	30638	- cription: REDDI	20.0	18.0 SILTY SA	Adj. 2.0 WET NDY CLAY	2.10	<del>Adj</del> . 2.09	100.5
Remarks:					- F					Ratio 95% STD	
Test Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1   Prepared By: G MCGRANN   Date: 08/04/2024   Checked By: G MCGRANN   3194/4   Page 1 of 1			Determined on material finer than 19mm Accredited for compliance with ISO/IEC 17025 – Testing. Results relate only to the items tested. Accreditation No.2415				Appro	Greg McGrann/Manager Approved Signatory Date: 08/04/2024			



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### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49604
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	03/04/2024	Tested by	GMG

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
30643	8:00	150	ROAD 03 LOC ON ATT PLAN R.L. 21.02	30643 Material Des	- cription: ORAN(	15.0 GE BROWN	14.5 SILTY SAI	A <del>dj.</del> 0.5 WET NDY CLAY	2.28	<del>Adj.</del> 2.20	103.5
30644	8:45	150	ROAD 03 LOC ON ATT PLAN R.L. 21.40	30644 Material Des	- cription: REDDI	15.5 SH BROWN	14.5 I SILTY SA	Adj. 1.0 WET NDY CLAY	2.27	<del>Adj</del> . 2.19	103.5
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:			<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:	L					
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:								Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	39 5.1.1, 5.3.	1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm					
Prepared By: Date: 08/04/	st Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1   spared By: G MCGRANN   secked By: G MCGRANN   4/4   Page 1 of 1			Accreditation No.2	Accredited for compli Results relate only to	ance with ISO/IE	C 17025 – Testin	Approv	AcGrann/Ma ved Signator )8/04/2024	- 1 - 1 -	uchan



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### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49684
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	10/04/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
30713	12:00	150	LOT 20 LOC ON ATT PLAN R.L. 22.27	30713 Material Des	- cription: REDDI	21.0 SH BROWN	20.0 SILTY CL	A <del>dj.</del> 1.0 WET AY	2.04	<del>Adj.</del> 2.08	98.0
30714	12:30	150	LOT 18 LOC ON ATT PLAN R.L. 20.89	30714	- cription: REDDI	18.5	17.5	Adj. 1.0 WET	2.09	Adj. 2.12	98.5
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:			Adj.		Adj.	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:					•			Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	39 5.1.1, 5.3.	1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm		•			
Prepared By: Date: 23/04/	t Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1 pared By: <i>G MCGRANN</i> e: 23/04/2024 ccked By: <i>G MCGRANN</i>			Accreditation No.2	Accredited for compli Results relate only to	ance with ISO/IE	C 17025 – Testin	Approv	AcGrann/Ma ved Signatoi 23/04/2024	- 1010	uch-



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#### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49687
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	11/04/2024	Tested by	JM

Field Test N <sup>0</sup> Sample N <sup>0</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
30730	15:30	150	ROAD 03 LOC ON ATT PLAN	30730	-	19.0	16.5	Adj. 2.0 WET	2.09	Adj. 2.06	101.5
			R.L. 21.09	Material Des	cription: YELLC	W BROWN	SILTY SA	NDY CLAY Adj.		<del>Adj</del> .	
				Material Des	cription:			<del>Adi</del> .		Adj.	
								<del>Auj</del> .		<del>Auj</del> .	
				Material Des	cription:			<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:					1	
Remarks:				·	•			Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	39 5.1.1, 5.3.	1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm					
Prepared By: Date: 23/04/	st Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1   epared By: G MCGRANN   te: 23/04/2024   ecked By: G MCGRANN		Accredited for compliance with ISO/IEC 17025 – Testing. Results relate only to the items tested.				Approv	Greg McGrann/Manager Approved Signatory Date: 23/04/2024			



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### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49690
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	12/04/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
30766	9:20	150	LOT 18 LOC ON ATT PLAN R.L. 21.52	30766 Material Des	- cription: GREY	21.5 BROWN SII	21.0 LTY CLAY	<del>Adj.</del> 0.5 WET	1.99	<del>Adj.</del> 2.05	97.0
30767	12:30	150	LOT 17 LOC ON ATT PLAN R.L. 21.92	30767	cription: BROW	17.0	16.5	Adj. 0.5 WET	2.06	Adj. 2.07	99.5
30768	14:45	150	LOT 20 LOC ON ATT PLAN R.L. 22.85	30768	- cription: REDDI	23.5	23.0	Adj. 0.5 WET	2.00	<del>Adj</del> . 2.02	99.0
			K.L. 22.03	Material Des		SH BROWN	SILTICL	A I Adj.		<del>Adj</del> .	
				Material Des	cription:		[	Adj.	[	Adj.	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:					•	
Remarks:								Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128		1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm					
Prepared By: Date: 23/04/	t Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1 pared By: <i>G MCGRANN</i> e: 23/04/2024 cked By: <i>G MCGRANN</i>			Accreditation No.2	Accredited for compli Results relate only to 2415		C 17025 – Testin	Approv	AcGrann/Ma ved Signato 23/04/2024	- 1010	uchan



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### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49693
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	17/04/2024	Tested by	GMG

Field	Time	Depth	<b>T 1</b>	Lab	% Oversize	Field	Optimum Moisture	Moisture	Field	Peak	Hilf
Test N <sup>0</sup>	of	of	Test Location	Compaction	19mm/37.5mm	Moisture	Content	Variation	Wet	Converted	Density
Sample N <sup>O</sup>	Test	Test		N <sup>0</sup>	Wet Basis	Content %	%	%	Density	Wet Density	Ratio %
-		mm		11	Wet Dusis	%0	,		t/m <sup>3</sup>	t/m <sup>3</sup>	%0
			LOT 19					<del>Adj.</del>		<del>Adj.</del>	
30864	8:10	150	LOC ON ATT PLAN	30864	-	14.5	14.0	0.5 WET	2.13	2.11	101.0
			R.L. 22.11	Material Des	cription: YELLC	W BROWN	SILTY SA	1	& ROCK F		
			LOT 16					<del>Adj</del> .		<del>Adj</del> .	
30865	8:55	150	LOC ON ATT PLAN	30865	-	17.0	16.0	1.0 WET	2.06	2.09	98.5
			R.L. 22.33	Material Des	cription: LIGHT	REDDISH I	BROWN SII	LTY SANDY	CLAY		
			LOT 21					<del>Adj</del> .		<del>Adj</del> .	
30866	12:15	150	LOC ON ATT PLAN	30866	-	23.5	23.0	0.5 WET	2.03	2.03	100.0
			R.L. 23.30	Material Description: REDDISH BROWN SILTY CLAY							
			LOT 18					Adj.		<del>Adj</del> .	
30867	14:20	150	LOC ON ATT PLAN	30867	-	22.0	21.5	0.5 WET	2.02	2.04	99.0
			R.L. 22.40	Material Des	cription: REDDI	SH BROWN	SILTY CL	AY			
								Adj.		Adj.	
				Material Des	cription:	•	•			•	
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:				1							
								Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	89 5.1.1. 5.3	.1, 5.7.1, 2.1.1	Determined	on material finer	than 19mm					
Prepared By			/ / /								
Date: 23/04/										$\cap$	20
54(0.25,04)	ate: 23/04/2024	NATA	Accredited for comple Results relate only to		C 17025 – Testin	<sup>g.</sup> Greg N	AcGrann/Ma	anager ///-	$\mathcal{I}$		
Checked Pur	necked By: G MCGRANN				results relate only to	are nome cored.			ved Signator	1 1 10	uchan
Checkeu By:	GIVICGRA	ININ Gib	N	Accreditation No.2	2415				23/04/2024	-	
8194/4	94/4 Page 1 of 1										



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### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49764
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	01/05/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>0</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
30932	9:30	150	ROAD 04 LOC ON ATT PLAN R.L. 21.95	30932 Material Des	- cription: LIGHT	19.0 BROWN SI	16.0 LTY SAND	Adj. 3.0 WET Y CLAY	1.98	<del>Adj.</del> 2.04	97.0
30933	11:45	150	FOOTPATH LOC ON ATT PLAN R.L. 20.70	30933	- cription: LIGHT	21.0	19.5	Adj. 1.5 WET	2.02 AY	<del>Adj</del> . 2.06	98.0
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:			<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:								Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	39 5.1.1, 5.3	.1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm					
Prepared By: Date: 09/05/	t Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1 pared By: <i>G MCGRANN</i> e: 09/05/2024 ecked By: <i>G MCGRANN</i>			Accreditation No.2	Accredited for compli Results relate only to 2415		C 17025 – Testin	Appro	//cGrann/Ma ved Signato 09/05/2024	- 1010	ucan



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#### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49765
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	01/05/2024	Tested by	JM

Field	Time	Depth		Lab	% Oversize	Field	Optimum Moisture	Moisture	Field	Peak	Hilf
Test N <sup>O</sup>	of	of	Test Location	Compaction	19mm/37.5mm	Moisture	Content	Variation	Wet	Converted	Density
Sample N <sup>O</sup>	Test	Test mm		N <sup>0</sup>	Wet Basis	Content %	%	%	Density t/m <sup>3</sup>	Wet Density t/m <sup>3</sup>	Ratio %
			LOT 5					<del>Adj.</del>		<del>Adj.</del>	
30937	10:45	150	LOC ON ATT PLAN	30937	-	16.5	16.0	0.5 WET	2.02	2.08	97.0
			R.L. 21.42	Material Des	cription: REDDI	SH BROWN	SILTY CL	AY & FINE	ROCK FRA	GMENTS	
			LOT 6					<del>Adj</del> .		<del>Adj</del> .	
30938	12:20	150	LOC ON ATT PLAN	30938	-	22.5	22.0	0.5 WET	1.94	1.96	99.0
			R.L. 21.81	Material Des	cription: REDDI	SH GREY S	ILTY CLAY	(			
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:								Specif	ind Donaity	Ratio 95% STD	
Test Procedu	res: AS128	39 5.1.1, 5.3	.1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm		Specif		Kau0 95% SID	
• •	repared By: G MCGRANN Pate: 13/05/2024		Accredited for compliance with ISO/IEC 17025 – Testing.				10C rann / 1		20		
Checked By:	hecked By: G MCGRANN		$\mathbf{V}$	Results relate only to the items tested. Accreditation No.2415			Appro	<i>AcGrann/Ma</i> ved Signator 13/05/2024	- 1010	w6n	



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### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49768
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	02/05/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
30944	9:00	150	LOT 4 LOC ON ATT PLAN R.L. 21.76	30944 Material Des	- cription: RED SI	18.0 LTY CLAY	18.0 & FINE RC	Adj. - OCK FRAGM	2.08 IENTS	<del>Adj.</del> 2.11	98.5
30945	9:30	150	LOT 3 LOC ON ATT PLAN R.L. 22.40	30945	- cription: REDDI	22.0	21.0	Adj. 1.0 WET	2.07	<del>Adj</del> . 2.04	101.5
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:			<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:		L						Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	39 5.1.1, 5.3.	1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm					
Prepared By: Date: 13/05/	t Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1 pared By: <i>G MCGRANN</i> e: 13/05/2024 cked By: <i>G MCGRANN</i>			Accreditation No.2	Accredited for compli Results relate only to	ance with ISO/IE	C 17025 – Testin	Appro	AcGrann/Ma ved Signato 13/05/2024	- 1010	ucan



Ph.(07) 3285 6536

### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49841
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	29/05/2024	Tested by	GMG

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
31155	13:30	150	SOUTHERN SWALE CH653	31155	-	29.0	28.5	Adj. 0.5 WET	1.91	<del>Adj.</del> 1.96	97.5
01100	10.00	100	R.L. 15.72		cription: GREY			0.0 1121	11/1	1170	2100
			SOUTHERN SWALE					Adj.		Adj.	
31156	14:20	150	CH656	31156	-	30.5	29.5	1.0 WET	1.86	1.95	95.5
01100	1	100	R.L. 16.18		cription: GREY				1100	1170	2000
			SOUTHERN SWALE					Adj.		Adj.	
31157	14:55	150	CH589	31157	-	22.5	21.0	1.5 WET	1.96	2.05	95.5
			R.L. 16.52	Material Description: YELLOW BROWN SILTY CLAY							
								<del>Adj</del> .		<del>Adj</del> .	
				Matarial Das							
				Material Des	cription:			Adj.		Adj.	
								<del>riuj</del> .		<del>riuj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:				Iviateriai Des							
Kelliarks.								Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	39 5.1.1, 5.3.	.1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm			2		
Prepared By:	G MCGRA	NN	·								
Date: 03/06/				NATA	A correction for commit	innen with ISO/IE	C 17025 Testin	~		$\bigcap$	10
	hecked By: G MCGRANN		Accreditation No.2	Accredited for compliance with ISO/IEC 17025 – Testing. Results relate only to the items tested.			Appro	Greg McGrann/Manager Approved Signatory Date: 03/06/2024			
194/4	Page 1	of 1		Accreditation NO.2				Date	57,00/2024		



### Ph.(07) 3285 6536

#### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49940
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	07/06/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
31307	13:45	150	SOUTHERN SWALE CH461 R.L. 17.58	31307 Material Des	- cription: GREY 1	18.5 BROWN SI	17.0	Adj. 1.5 WET	1.98	<del>Adj.</del> 2.06	96.0
			K.L. 17.56					<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:			<del>Adj</del> .		<del>Adj</del> .	
				Material Des	anintian.			- <b>9</b> -			
				Material Des				<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:								Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	39 5.1.1, <u>5.3</u>	.1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm					
Prepared By: Date: 18/06/	epared By: <i>G MCGRANN</i> ate: 18/06/2024 necked By: <i>G MCGRANN</i>		Accredited for compliance with ISO/IEC 17025 – Testing. Results relate only to the items tested.				Approv	Greg McGrann/Manager Approved Signatory Date: 18/06/2024			



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### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49941
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	10/06/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
31324	10:30	150	SWALE BATTER(WELL) LOC ON ATT PLAN R.L. 15.68	31324 Material Des	- cription: BROW	20.0	20.5	Adj. 0.5 DRY	1.94	<del>Adj.</del> 1.98	98.0
31325	11:20	150	SWALE BATTER(WELL) LOC ON ATT PLAN R.L. 16.41	31325	cription: REDDI	17.5	18.5	Adj. 1.0 DRY	2.00	<del>Adj</del> . 2.03	98.5
31326	12:45	150	SWALE BATTER(WELL) LOC ON ATT PLAN R.L. 17.06	31326	- cription: REDDI	16.5	19.0	Adj. 2.5 DRY	2.01	<del>Adj</del> . 2.06	97.5
			K.L. 17.00			SH BROWN		A I Adj.		<del>Adj</del> .	
				Material Des	cription:			<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:			Adj.		<del>Adj</del> .	
				Material Des	cription:			3		5	
Remarks:								Specif	ied Density	Ratio 95% STD	
Prepared By: Date: 18/06/	t Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1 pared By: <i>G MCGRANN</i> e: 18/06/2024 cked By: <i>G MCGRANN</i>			Determined of Nation No.2	Accredited for compli Results relate only to	ance with ISO/IE	C 17025 – Testin;	Appro	AcGrann/Ma ved Signato 18/06/2024	- 1010	4:6



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### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	49964
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	10/06/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>0</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
31318	7:15	150	LOT 15 LOC ON ATT PLAN	31318	-	18.5	17.0	A <del>dj.</del> 1.5 WET	2.06	<del>Adj.</del> 2.09	98.5
31319	8:00	150	R.L. 22.47 LOT 22 LOC ON ATT PLAN R.L. 23.87	31319	cription: REDDI _ cription: REDDI	16.0	15.0	Adj. 1.0 WET	2.17	<del>Adj</del> . 2.15	101.0
31320	8:45	150	LOT 21 LOC ON ATT PLAN	31320	-	15.5	15.5	<del>Adj</del> . -	2.09	<del>Adj</del> . 2.13	98.0
			R.L. 23.77		cription: REDDI	SH BROWN	SILTY SA	NDY CLAY Adj.		<del>Adj</del> .	
				Material Des	cription:			<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:		I	A 1'		A 1'	
				Material Des	cription:			<del>Adj</del> .		<del>Adj</del> .	
Remarks:					ł			Specif	ied Density	Ratio 95% STD	
Prepared By: Date: 19/06/	Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1   pared By: G MCGRANN   e: 19/06/2024   cked By: G MCGRANN   /4   Page 1 of 1			Determined of Nata	Accredited for compli Results relate only to	ance with ISO/IE	C 17025 – Testin	Appro	AcGrann/Ma ved Signator 20/06/2024	- 1010	4:6



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### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BULK EARTHWORKS	Report No.	50161
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	31/07/2024	Tested by	GMG

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
		1.70	LOT 19					Adj.		<del>Adj.</del>	
32021	11:55	150	LOC ON ATT PLAN	32021	-	21.5	22.0	0.5 DRY	2.08	2.04	102.0
			R.L. 22.76	Material Des	cription: RED SI	LTY SAND	Y CLAY	4.1			
32022	12:40	150	LOT 54 LOC ON ATT PLAN	32022		16.0	17.5	Adj. 1.5 DRY	2.02	<del>Adj</del> . 2.08	97.0
52022	12:40	150	R.L. 23.71		- cription: LIGHT					2.08	97.0
			LOT 53	Material Des		KEDDISITI		Adj.	CLAI	Adj.	
32023	14:00	150	LOT 55 LOC ON ATT PLAN	32023	-	17.5	17.0	0.5 WET	2.06	2.09	98.5
02020	1 1100	100	R.L. 24.10		cription: RED SI			010 11 21	2100	2109	
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription.						
								Adj.		Adj.	
								-		_	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription.						
Remarks:				Material Des							
								Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	39 5.1.1, 5.3.	1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm		•			
Prepared By:	G MCGRA	NN									
	hecked By: <i>G MCGRANN</i>		Accredited for compliance with ISO/IEC 17025 – Testing. Results relate only to the items tested.				Approv	Greg McGrann/Manager Approved Signatory Date: 04/08/2024			



Job No. 202404

14<sup>th</sup> of August 2024

BMD Urban Pty Ltd PO Box 197 WYNNUM CENTRAL QLD 4178

Attn Alex Wood

#### **RE: LILYWOOD LANDINGS – STAGES 1A & 1B & STAGE 23, UPPER CABOOLTURE ROAD, UPPER CABOOLTURE QLD 4510** (Existing Water Wells – Allotment & Road Fill Geotechnical Inspection & Testing)

#### SCOPE

Brisbane Soil Testing were commissioned by BMD Urban Pty Ltd to provide geotechnical inspection and testing of the existing well earthworks on the above stage subdivisions.

Well number 1 Lot 664 Stage 23 and well number 2 o/s 4.0m R CH118 Road 03 Stage 1A & 1B.

Some filling was required as part of the development and for this work, our site presence was maintained in accordance with AS3798-2007 "Guidelines on Earthworks for Commercial and Residential Developments" Appendix B, "Level 1". As directed the scope of the Level 1 inspection and testing was:

- (i) Check adequacy of pre-fill ground preparation
- (ii) Decommission both wells and remove unsuitable materials

(iii) Replace with self-compacting 10mm aggregate to minimum 2.0m below design finished level and cover with geogrid.

(iv) Inspect and carry out compaction control testing of placed fill materials

(v) Provide RPEQ Certification

#### CONTROL INSPECTION AND TESTING

An inspection of the areas to be filled was carried out on 21 and 22 March 2024 and on an ongoing basis as the job progressed, by Brisbane Soil Testing staff.

On-site cut materials were used for filling and these materials were generally placed in 0.20 m loose horizontal layers and compacted with an excavator and pin wheel at well number 1 and an 815 compactor at well number 2.

Eight field density tests were carried between 21 March 2024 and 19 July 2024. These tests recorded Dry Density Ratios between 98.0% and 102.5% relative to the standard compaction test and field moisture contents within +0.5% and +1.0% of their respective optimum moisture contents, AS1289.5.1.1.

Attached documents B194/4 (Report Nos. 49598, 49600, 49599, 49602, 49688 & 50099 provide full test data for the compaction control tests.

#### CONCLUSION

Based on the test results and site inspections, we conclude that the fill foundation is considered to comply with requirements of Table 5.1- Item 1 & 3 of AS3798-2007 and the project specifications.

We confirm that all vegetation and topsoil was removed, and that a sound base for the proposed filling was provided. We further confirm that all filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

GREG McGRANN MANAGING DIRECTOR BRISBANE SOIL TESTING

**Attachments:** 

**Test Location Plans** 

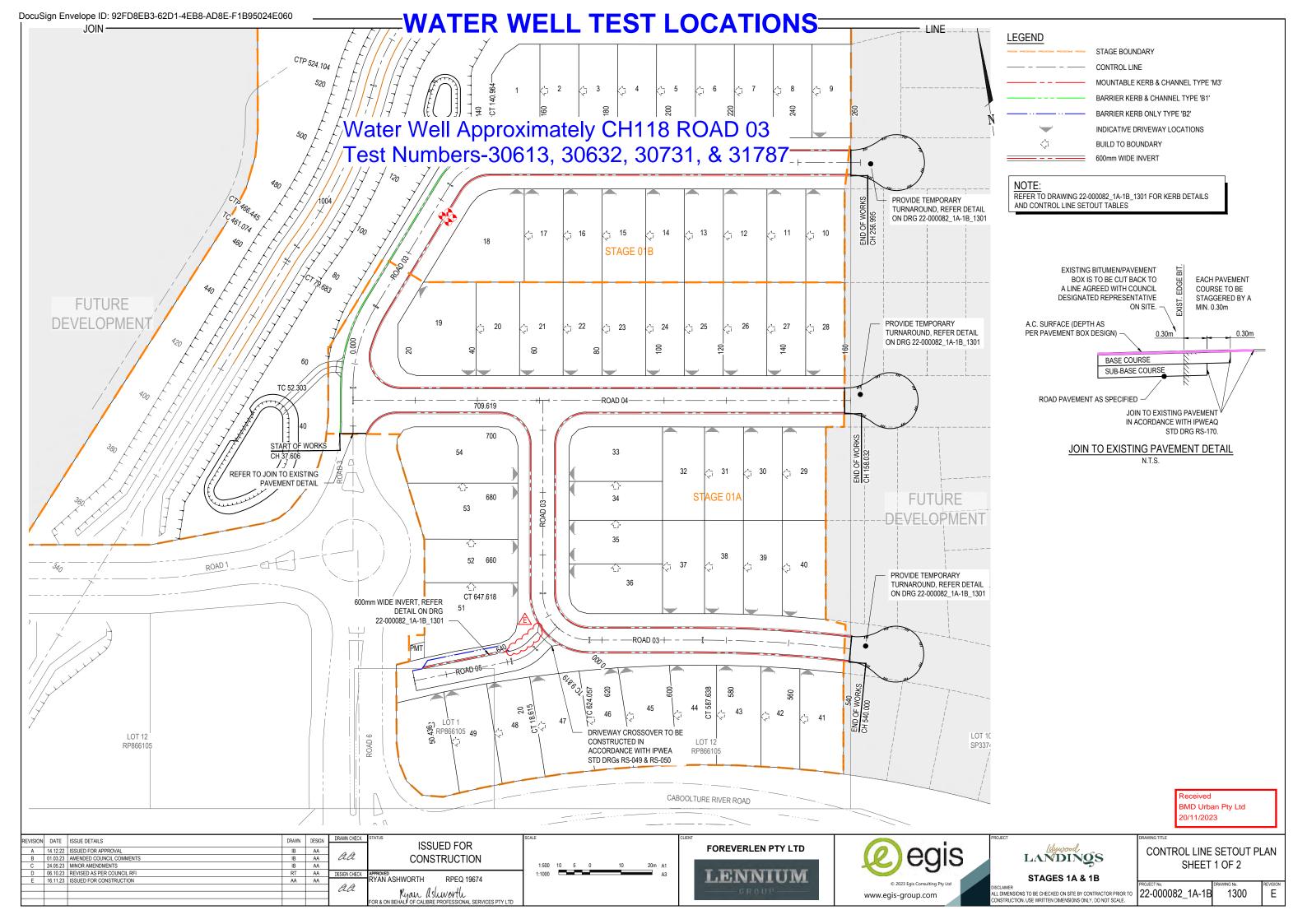
Site Photos

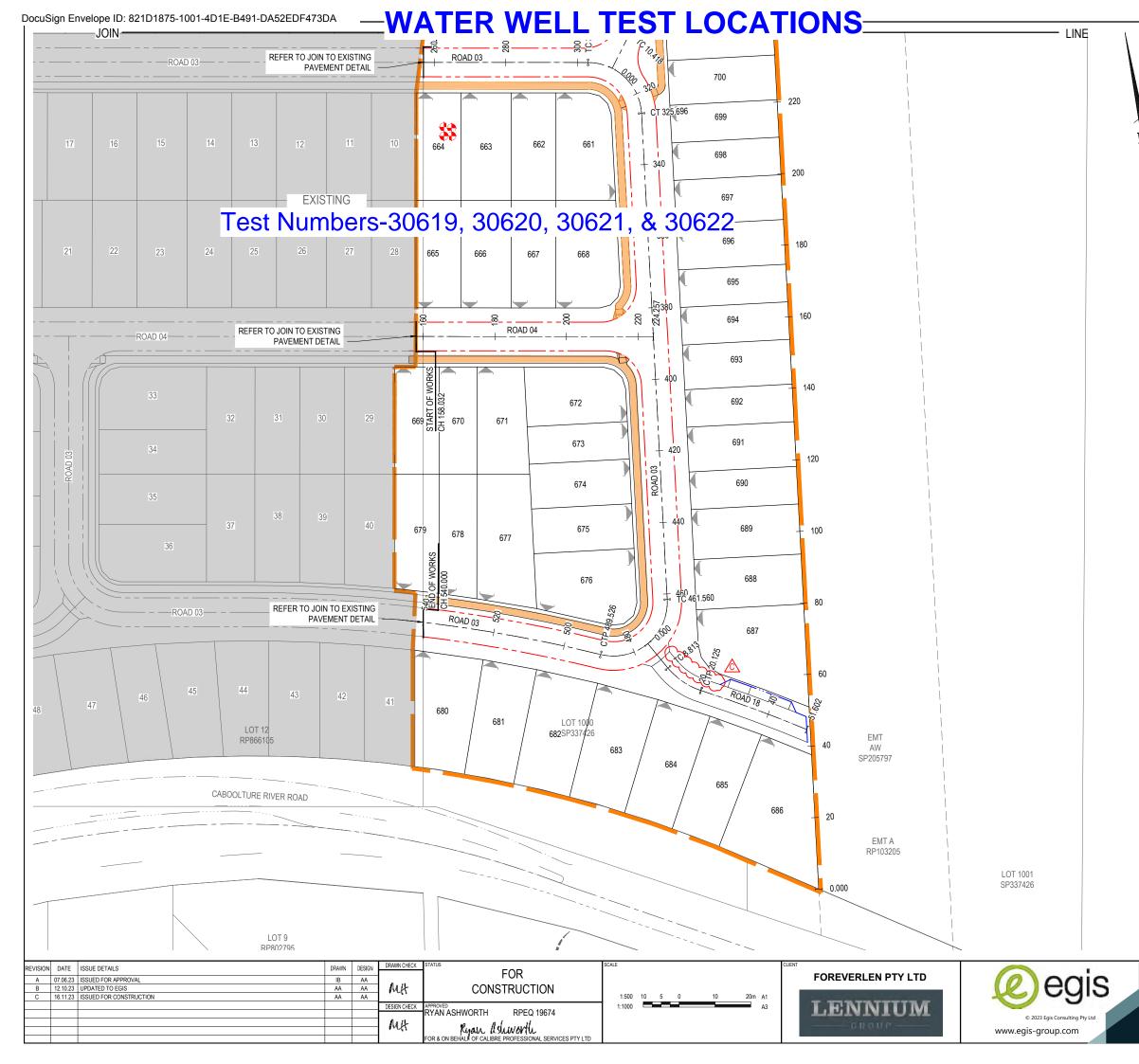
Field Density Test Reports

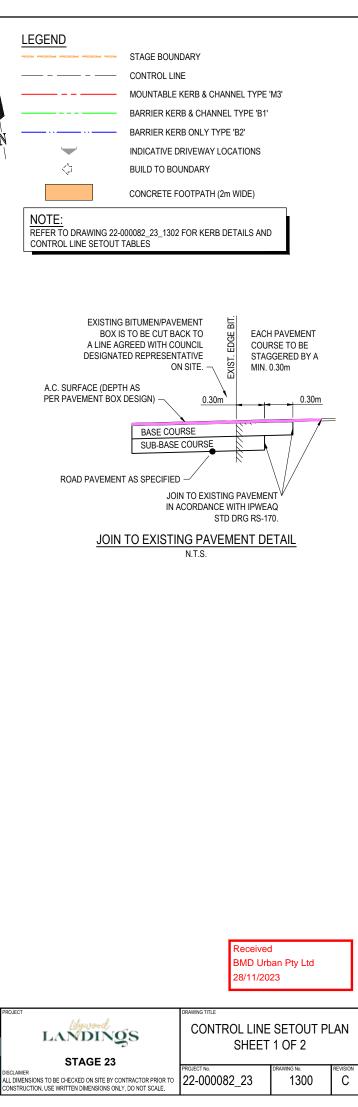
SAM JEYAN GEOTECHNICAL ENGINEER <u>BRISBANE SOIL TESTING</u> RPEQ. No. 13339 GEOTECHNICAL



**Brisbane Soil Testing** 20/1191 Anzac Ave Kallangur, Q. 4503









Well Number 2

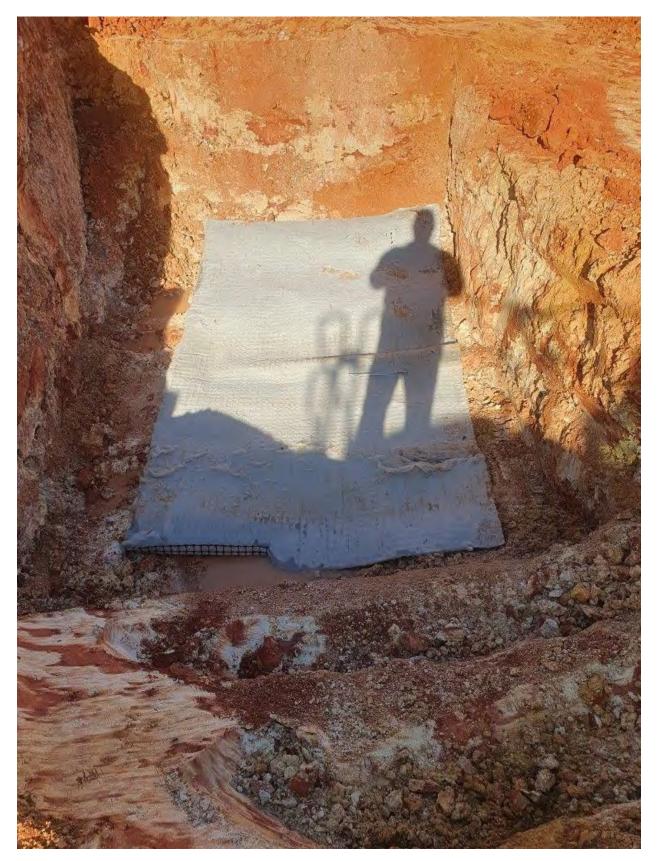


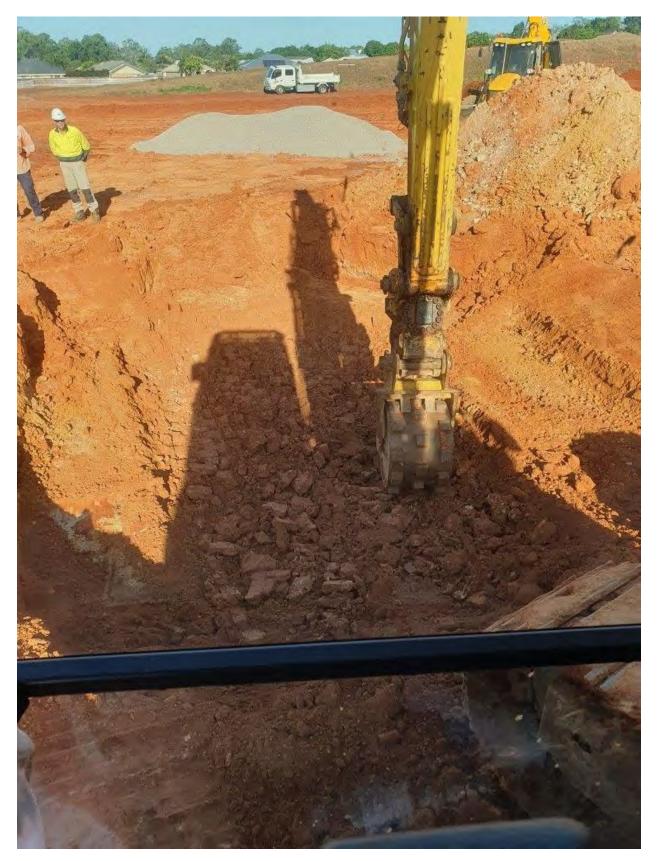














Ph.(07) 3285 6536

### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL(WELL)	Report No.	49598
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 23	Date Tested	21/03/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>0</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
30619	15:05	150	LOT 664 LOC ON ATT PLAN 1.62m below F.L.	30619 Material Des	- cription: LIGHT	24.0 BROWN SI	23.5 LTY CLAY	Adj. 0.5 WET	1.94	<del>Adj.</del> 1.95	99.5
30620	16:00	150	LOT 664 LOC ON ATT PLAN 1.09m below F.L.	30620	- cription: LIGHT	23.0	22.0	Adj. 1.0 WET	1.98	<del>Adj</del> . 1.96	101.0
30621	16:45	150	LOT 664 LOC ON ATT PLAN 0.55m below F.L.	30621	- cription: REDDI	19.0	18.5	Adj. 0.5 WET	2.06 ROCK FRA	Adj. 2.09 GMENTS	98.5
				Material Des				Adj.		Adj.	
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:			<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:								Specif	ied Density	Ratio 95% STD	
Test Procedu Prepared By: Date: 02/04/ Checked By: 3194/4	<i>G MCGRA</i> 2024	nn nn GC	1, 5.7.1, 2.1.1 )	Determined of NATA Accreditation No.2	Accredited for compli Results relate only to	ance with ISO/IE	C 17025 – Testin,	<sup>g.</sup> Greg N Appro	AcGrann/Ma ved Signator 22/04/2024	anager /	ulan



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### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ROAD FILL(WELL)	Report No.	49600
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	22/03/2024	Tested by	JM

Field Test N <sup>O</sup>	Time of	Depth of	Test Location	Lab Compaction	% Oversize 19mm/37.5mm	Field Moisture	Optimum Moisture Content	Moisture Variation	Field Wet	Peak Converted	Hilf Density
Sample N <sup>O</sup>	Test	Test mm		N <sup>0</sup>	Wet Basis	Content %	%	%	Density t/m <sup>3</sup>	Wet Density t/m <sup>3</sup>	Ratio %
			ROAD 03					<del>Adj.</del>		<del>Adj.</del>	
30613	14:15	150	o/s 4.0m R CH118	30613	-	17.5	17.0	0.5 WET	2.12	2.09	101.5
			1.85m below P.L.	Material Des	cription: REDDI	SH BROWN	SILTY SA	-	& FINE RC		ITS
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								Adj.		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:								Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	39 5.1.1, 5.3	.1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm		Specif		Kauto 7570 STD	
•	repared By: G MCGRANN ate: 02/04/2024		Accredited for compliance with ISO/IEC 17025 – Testing.				g.	4-6	$\square$	10	
Checked By:	hecked By: G MCGRANN			Results relate only to the items tested.			Appro	Greg McGrann/Manager Approved Signatory Date: 02/04/2024			



Ph.(07) 3285 6536

### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL(WELL)	Report No.	49599
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 23	Date Tested	22/03/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
30622	7:45	150	LOT 664 LOC ON ATT PLAN	30622	-	24.0	23.0	Adj. 1.0 WET	1.94	<del>Adj.</del> 1.96	99.0
			0.1m below F.L.	Material Des	cription: LIGHT	RED SILTY	CLAY	<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:			<del>Adj</del> .		Adj.	
				Material Des	cription:			Auj.		Auj.	
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:			8			
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:			1			
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:					•			Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	39 5.1.1, 5.3	.1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm			2		
Prepared By: Date: 02/04/	repared By: <i>G MCGRANN</i> Pate: 02/04/2024 hecked By: <i>G MCGRANN</i>		Accredited for compliance with ISO/IEC 17025 – Testing. Results relate only to the items tested.			Appro	//cGrann/Ma ved Signator	- 1010	u Gamme		
R194/4	-101		Accreditation No.2	2415			Date: 0	02/04/2024			



### Ph.(07) 3285 6536

### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ROAD FILL(WELL)	Report No.	49602
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	02/04/2024	Tested by	GMG

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
30632	7:20	150	ROAD 03 o/s 4.0m R CH118 1.43m below P.L.	30632	- cription: RED SI	22.0	21.0	Adj. 1.0 WET	1.99	<del>Adj.</del> 2.03	98.0
			1.43m below P.L.	Material Des	cripuon: RED SI	LIICLAI	& FINE KC	Adj.	IENIS	<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:		II						Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	39 5.1.1, 5.3.	1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm					
Prepared By: Date: 08/04/	ecked By: <i>G MCGRANN</i>			Accredited for compliance with ISO/IEC 17025 – Testing. Results relate only to the items tested. Accreditation No.2415						uchan_	



### Ph.(07) 3285 6536

### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ROAD FILL(WELL)	Report No.	49688
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	11/04/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
			ROAD 03					Adj.	UIII	Adj.	
30731	14:25	150	o/s 4.0m R CH118	30731	-	17.5	17.0	0.5 WET	2.09	2.09	100.0
			1.05m below P.L.	Material Des	cription: LIGHT	BROWN SI	LTY SAND	Y CLAY		_	
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								Adj.		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:								Specif	iad Dansity	Ratio 95% STD	
Test Procedu	res: AS128	39 5.1.1, 5.3	.1, 5.7.1, 2.1.1	Determined	on material finer	than 19mm		Specif	led Delisity	Katio 95% STD	
	repared By: G MCGRANN ate: 23/04/2024		Accredited for compliance with ISO/IEC 17025 – Testing. Results relate only to the items tested.				<sup>g.</sup> Greg N	AcGrann/Ma	anager Pl-	$\frac{1}{2}$	
Checked By:	G MCGRA	NN GL		Accreditation No.2		ale tonis tested.		Appro	ved Signator 23/04/2024		uchan-



### Ph.(07) 3285 6536

### **FIELD DENSITY CERTIFICATE**

Connemar Pty. Ltd. ABN 50 065 093 647 Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ROAD FILL(WELL)	Report No.	50099
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202404
Project	LILYWOOD LANDINGS – STAGE 1A & 1B	Date Tested	19/07/2024	Tested by	JM

Field Test N <sup>O</sup> Sample N <sup>O</sup>	Time of Test	Depth of Test mm	Test Location	Lab Compaction N <sup>O</sup>	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m <sup>3</sup>	Peak Converted Wet Density t/m <sup>3</sup>	Hilf Density Ratio %
31787	9:20	150	ROAD 03 o/s 4.0m R CH118	31787		16.5	16.0	Adj. 0.5 WET	2.13	Adj. 2.08	102.5
51767	).20	SUBGRADE	Material Description: BROWN SILTY SANDY CLAY						102.5		
			Sebenabl					Adj.		Adj.	
				Material Description:				4			
								<del>Adj</del> .		<del>Adj</del> .	
				Material Description:							
								<del>Adj</del> .		<del>Adj</del> .	
				Material Description:							
								<del>Adj</del> .		<del>Adj</del> .	
				Material Description:							
								<del>Adj</del> .		<del>Adj</del> .	
				Material Description:							
Remarks:								Specif	ied Density	Ratio 100% STE	)
Test Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1			Specified Density Ratio 100% ST     Determined on material finer than 19mm						, 		
Prepared By: <i>G MCGRANN</i> Date: 26/07/2024			Accredited for compliance with ISO/IEC 17025 – Testing.				<sup>g.</sup> Grea N	Greg McGrann/Manager			
Checked By: G MCGRANN			Results relate only to the items tested. Accreditation No.2415			Appro	Approved Signatory Date: 26/07/2024				