20/1191 Anzac Ave
Kallangur, Q. 4503
Ph. (07) 3285 6536
Email. brissoil@bigpond.net.au
Geotechnical Testing Services.

Connemar Pty. Ltd. ABN 50 065 093 647

Job No. 202139

21st of October 2021

BMD Urban Pty Ltd PO Box 197 WYNNUM CENTRAL QLD 4178

Attn Kayt Scott

#### **RE:** COMMUNITY LINKS ESTATE – STAGE 5 (Revised Report)

(Allotment Fill– Geotechnical Inspection & Testing) (Revised to now include further controlled fill to Lot 125)

#### **SCOPE**

Brisbane Soil Testing were commissioned by BMD Urban Pty Ltd to provide geotechnical inspection and testing of the allotment earthworks 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

#### CONTROL INSPECTION AND TESTING

An inspection of the areas to be filled was carried out on the 11<sup>th</sup> of August 2021 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 0.20m loose horizontal layers and compacted with an 815 compactor and vibrating pad foot roller.

Eleven field density tests were carried between the 11<sup>th</sup> of August 2021 and the 18<sup>th</sup> of October 2021. These tests recorded Dry Density Ratios between 99.5% and 107.5% relative to the standard compaction test and field moisture contents within –1.0% and +1.5% of their respective optimum moisture contents, AS1289.5.1.1.

Attached documents B194/3 (Report Nos. 46852, 46897, 46899, 46918, 47110 & 47143) provide full test data for the compaction control tests.

No fill was placed on Lots 94, 95, 96, 99, 104, 105, 106, 107 & 108 during our Level 1 Inspection and Testing Commission.

#### **CONCLUSION**

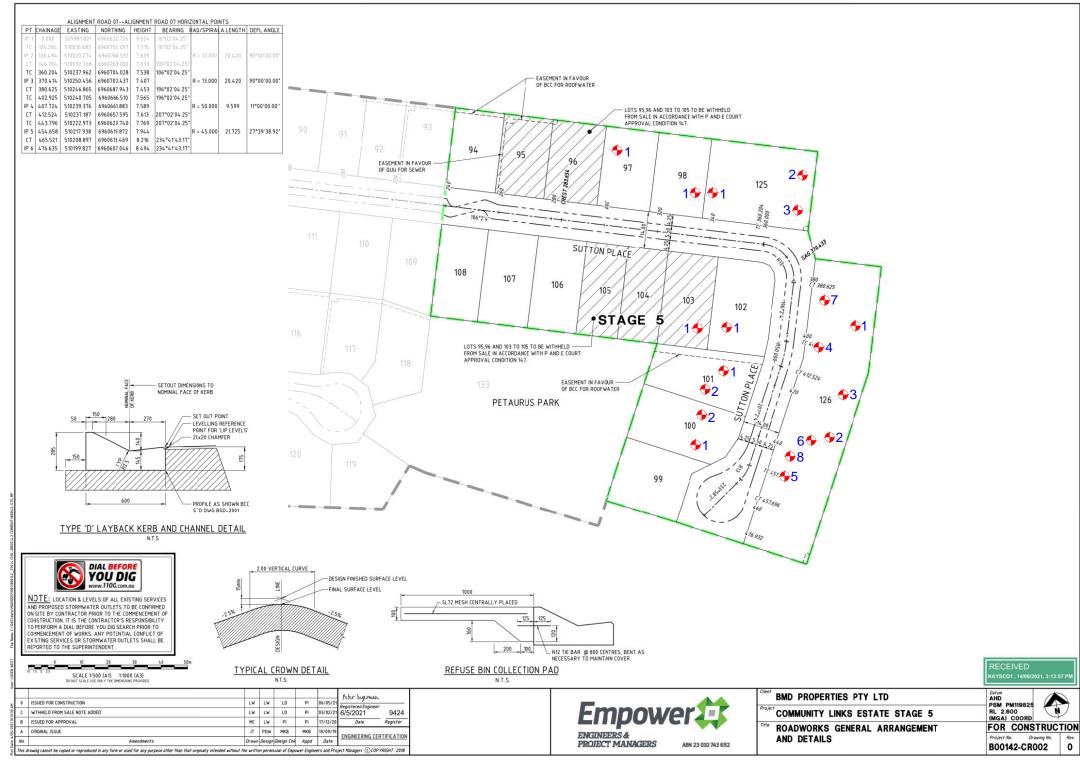
Based on the test results and site inspections, we conclude that the fill foundation is considered to comply with requirements of Table 5.1- Item 1 of AS3798-2007 and the project specifications.

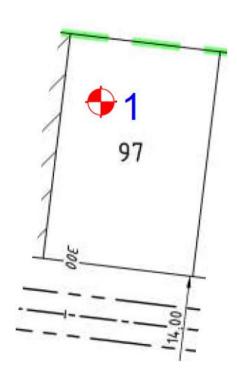
We confirm that all vegetation and topsoil was removed, and that a sound base for the proposed filling was provided. We further confirm that all filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

**GREG McGRANN** 

**BRISBANE SOIL TESTING** 

**Managing Director** 





#### **Field Density Results**

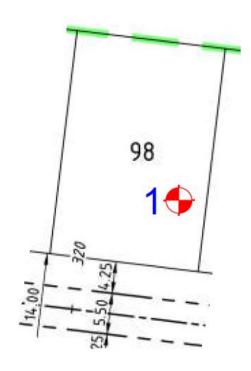
Page 1of 1

	Гest No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)	
1 (	24337)	18/08/2021	o/s 9m Rear bdy, o/s 4m Left bdy R.L. 10.70	107.5	

In our opinion all fill on Lot 97 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 of AS3798-2007 and the project specifications. We confirm that 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** 





#### **Field Density Results**

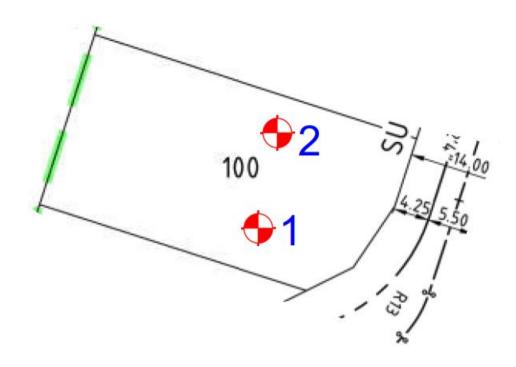
Page 1of 1

Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
1 (24278)	12/08/2021	o/s 11m Front bdy, o/s 3m Right bdy R.L. 9.93	100.5

In our opinion all fill on Lot 98 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 of AS3798-2007 and the project specifications. We confirm that 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** 





**Field Density Results** 

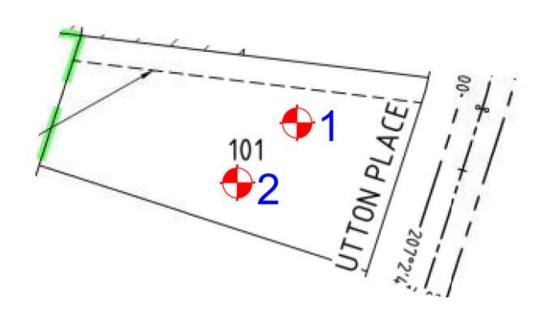
Page 1of 1

Test	Date	Test	Dry Density Ratio % AS1289 5.4.1 (Standard)		
No.	Tested	Location			
1 (24277)	12/08/2021	o/s 12m Front bdy, o/s 5m Left bdy R.L. 8.83 o/s 17m Front bdy, o/s 3m Right bdy R.L. 9.47	99.5		
2 (24302)	13/08/2021		102.0		

In our opinion all fill on Lot 100 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 of AS3798-2007 and the project specifications. We confirm that 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** 





#### **Field Density Results**

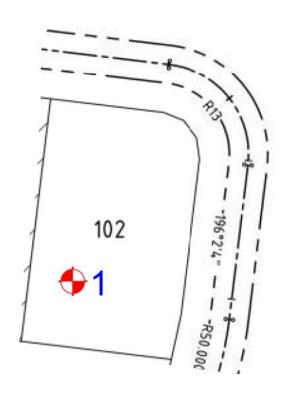
Page 1of 1

Test	Date	Test	Dry Density Ratio % AS1289 5.4.1 (Standard)	
No.	Tested	Location		
1 (24276)	12/08/2021	o/s 12m Front bdy, o/s 6m Right bdy	R.L. 8.92	101.5
2 (24301)	13/08/2021	o/s 17m Front bdy, o/s 6m Left bdy	R.L. 9.66	102.5

In our opinion all fill on Lot 101 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 of AS3798-2007 and the project specifications. We confirm that 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** 





#### **Field Density Results**

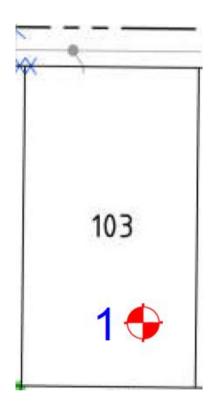
Page 1of 1

Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)	
1 (24274)	11/08/2021	o/s 8m Rear bdy, o/s 6m Right bdy R.L. 9.61	99.5	

In our opinion all fill on Lot 102 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 of AS3798-2007 and the project specifications. We confirm that 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** 





#### **Field Density Results**

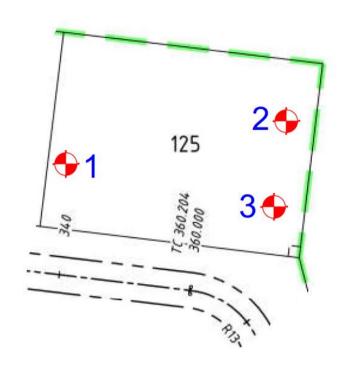
Page 1of 1

Test	Date	Test	Dry Density Ratio % AS1289 5.4.1 (Standard)
No.	Tested	Location	
1 (24275)	11/08/2021	o/s 6m Rear bdy, o/s 3m Left bdy R.L. 9.47	99.5

In our opinion all fill on Lot 103 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 of AS3798-2007 and the project specifications. We confirm that 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** 





**Field Density Results** 

Page 1of 1

Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
1 (24279)	12/08/2021	o/s 11m Front bdy, o/s 1m Left bdy R.L. 9.90	101.0
2 (24903)	07/10/2021	o/s 7m Rear bdy, o/s 3m Right bdy R.L. 8.01	100.0
3 (24952)	18/10/2021	o/s 8m Front bdy, o/s 3m Right bdy R.L. 8.48	105.0

In our opinion all fill on Lot 125 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 of AS3798-2007 and the project specifications. We confirm that 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** 



20/1191 Anzac Ave Kallangur Q 4503 Ph.(07) 3285 6536

## FIELD DENSITY CERTIFICATE

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

46852

Email. brissoil@bigpond.net.au

Customer BMD URBAN PTY LTD Feature ALLOTMENT Address PO BOX 197, WYNNUM CENTRAL QLD 4178 Location SEE BELOW Project COMMUNITY LINKS ESTATE – STAGE 5 Date Tested 11/08/2021

ALLOTMENT FILL
SEE BELOW

Job No. 202139 Tested by AC

Report No.

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 %
24274	10:00	150	LOT 102 8m Rear bdy, 6m Right bdy R.L. 9.61	24274 Material Des	- cription: GREY	16.5 BROWN SII	15.0	Adj. 1.5 WET	2.11	Adj. 2.12	99.5
24275	10:30	150	LOT 103 6m Rear bdy, 3m Left bdy	24275	-	16.0	15.5	Adj. 0.5 WET	2.11	Adj. 2.12	99.5
			R.L. 9.47	Material Des	cription: REDDI	SH BROWN	& GREY S	Adj.	DY CLAY	<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:					Ţ.	
Remarks:								Specif	ied Density	Ratio 95% STD	
			3.1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm					
Date: 14/08/	Prepared By: G MCGRANN Date: 14/08/2021			NATA Accredited for compliance with ISO/IEC 17025 – Testing.			Greg N	McGrann/Mc		4600	
Checked By:	Checked By: G MCGRANN			Accreditation No.2415					Approved Signatory Date: 14/08/2021		

20/1191 Anzac Ave Kallangur Q 4503 Ph.(07) 3285 6536

## FIELD DENSITY CERTIFICATE

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

Email. brissoil@bigpond.net.au

Customer Address Project COMMUNITY LINKS ESTATE – STAGE 5

BMD URBAN PTY LTD PO BOX 197, WYNNUM CENTRAL QLD 4178

Feature Location Date Tested 12/08/2021

ALLOTMENT FILL **SEE BELOW** 

Report No. Job No.

46897 202139

Tested by AC

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 %
24276	7:30	150	LOT 101 12m Front bdy, 6m Right bdy R.L. 8.92	24276 Material Des	- cription: BROW	14.0 N SILTY CI	13.5 AY & ROC	A <del>dj.</del> 0.5 WET	2.24 ENTS	Adj. 2.21	101.5
24277	8:00	150	LOT 100 12m Front bdy, 5m Left bdy R.L. 8.83	24277	cription: BROW	14.0	13.5	Adj. 0.5 WET	2.19	Adj. 2.20	99.5
24278	8:30	150	LOT 98 11m Front bdy, 3m Right bdy R.L. 9.93	24278	- cription: BROW	16.0	15.0	Adj. 1.0 WET	2.18	A <del>dj.</del> 2.17	100.5
24279	9:00	150	LOT 125 11m Front bdy, 1m Left bdy	24279	-	12.5	12.0	Adj. 0.5 WET	2.24	Adj. 2.22	101.0
			R.L. 9.90	Material Des	cription: BROW	N SILTY CI	LAY & ROC	K FRAGME Adj.	ENTS	Adj.	
				Material Des	cription:						
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:								Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	89 5.1.1, 5.3	3.1, 5.7.1, 2.1.1	Determined	on material finer	than 19mm					
Prepared By: G MCGRANN Date: 25/08/2021			Accredited for compliance with ISO/IEC 17025 – Testing.			Appro	Greg McGrann/Manager Approved Signatory				
Date: 25/08/	Date: 25/08/2021  Checked By: G MCGRANN				Accredited for compli	iance with ISO/IE	C 17025 – Testing	Appro	-	- 1	200

20/1191 Anzac Ave Kallangur Q 4503 Ph.(07) 3285 6536

## FIELD DENSITY CERTIFICATE

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

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BMD URBAN PTY LTD Feature ALLOTMENT FILL Report No. 46899 Customer 202139 Address PO BOX 197, WYNNUM CENTRAL QLD 4178 Location **SEE BELOW** Job No. Project COMMUNITY LINKS ESTATE – STAGE 5 Date Tested 13/08/2021 Tested by AC

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 %
24301	8:30	150	LOT 101 17m Front bdy, 6m Left bdy R.L. 9.66	24301 Material Des	- cription: BROW	10.0 N SILTY SA	11.0 ANDY CLAY	Adj. 1.0 DRY Y & ROCK I	2.20 FRAGMENT	Adj. 2.15 TS	102.5
24302	9:00	150	LOT 100 17m Front bdy, 3m Right bdy R.L. 9.47	24302	- cription: BROW	10.0	11.0	Adj. 1.0 DRY	2.20	<del>Adj.</del> 2.16	102.0
				Material Des	cription:			Adj.		Adj.	
				Material Des	cription:			Adj.		Adj.	
				Material Des	cription:			<del>Adj</del> .		Adj.	
Remarks:				Material Des	cription:			G :6	. 15	D .: 050/ CED	
Prepared By:	Test Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1  Prepared By: G MCGRANN  Date: 25/08/2021			Determined on material finer than 19mm  Accredited for compliance with ISO/IEC 17025 – Testing.					ied Density :	Ratio 95% STD	20
Checked By:	G MCGRA		K	Accreditation No.2	2415				Approved Signatory Date: 25/08/2021		

20/1191 Anzac Ave Kallangur Q 4503 Ph.(07) 3285 6536

## FIELD DENSITY CERTIFICATE

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

Email. brissoil@bigpond.net.au

BMD URBAN PTY LTD Feature ALLOTMENT FILL Report No. 46918 Customer 202139 Address PO BOX 197, WYNNUM CENTRAL QLD 4178 Location **SEE BELOW** Job No. Project COMMUNITY LINKS ESTATE – STAGE 5 Date Tested 18/08/2021 Tested by AC

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 %
24337	7:30	150	LOT 97 9m Rear bdy, 4m Left bdy R.L. 10.70	24337 Material Dec	- cription: LIGHT	9.5	10.5	Adj. 1.0 DRY	2.27	Adj. 2.11	107.5
			K.L. 10.70	Waterial Des	Empuoli, LiGHT	DROWN SA	AND I CLA	Adj.	OCK FRAC	Adj.	
				Material Des	cription:	•	•				
								<del>Adj.</del>		<del>Adj.</del>	
				Material Des	cription:					1	
				1720001301 200				Adj.		Adj.	
				Material Des	crintion:	<u> </u>	<u> </u>			<u> </u>	
				Waterial Des	emption.			Adj.		Adj.	
				Material Des	cription:					l	
								<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:					l	
Remarks:								Specif	ied Density	Ratio 95% STD	
Test Procedu	res: AS128	89 5.1.1, 5.3	3.1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm					
	Prepared By: G MCGRANN Date: 31/08/2021			Accredited for compliance with ISO/IEC 17025 – Testing.				Greg N	ЛcGrann/Mc		
Checked By:	Checked By: G MCGRANN			Accreditation No.2415					Approved Signatory Date: 31/08/2021		

20/1191 Anzac Ave Kallangur Q 4503 Ph.(07) 3285 6536

## FIELD DENSITY CERTIFICATE

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

Email. brissoil@bigpond.net.au

BMD URBAN PTY LTD Feature ALLOTMENT FILL Report No. 47110 Customer 202139 Address PO BOX 197, WYNNUM CENTRAL QLD 4178 Location **SEE BELOW** Job No. Project COMMUNITY LINKS ESTATE – STAGE 5 Date Tested 07/10/2021 Tested by AC

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 %
24903	7:15	150	LOT 125 7m Rear bdy, 3m Right bdy R.L. 8.01	24903 Material Des	- cription: BROW	10.0 N SILTY SA	9.5	Adj. 0.5 WET	2.20	Adj. 2.20	100.0
			R.L. 0.01	Waterial Des	emption. Bit o w	SILT 57	IND I CENT	Adj.	MIGNERY	Adj.	
				Material Des	cription:	•	•	•			
					•			<del>Adj.</del>		<del>Adj.</del>	
				Material Des	cription:	<u>I</u>	<u> </u>		<u>I</u>	I.	
				Triaverial Des				<del>Adj.</del>		Adj.	
				Material Des	crintion:					Į.	1
				Waterial Des	Cription.			Adj.		Adj.	
				Material Des	cription:			<u> </u>			
				Triaverial B es				<del>Adj</del> .		<del>Adj</del> .	
				Material Des	cription:						
Remarks:								Specif	ied Density	Ratio 95% STD	
Test Procedu	ires: AS12	89 5.1.1, 5.3	3.1, 5.7.1, 2.1.1	Determined of	on material finer	than 19mm		•			
Date: 08/10/	Prepared By: G MCGRANN Date: 08/10/2021			NATA	Accredited for compli	iance with ISO/IE	C 17025 – Testin	Grey I	McGrann/Ma		lu Carre
Checked By:	Checked By: G MCGRANN			Accreditation No.2415					Approved Signatory Date: 08/10/2021		

20/1191 Anzac Ave Kallangur Q 4503 Ph.(07) 3285 6536

## FIELD DENSITY CERTIFICATE

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

Email. brissoil@bigpond.net.au

BMD URBAN PTY LTD Feature ALLOTMENT FILL Report No. 47143 Customer 202139 Address PO BOX 197, WYNNUM CENTRAL QLD 4178 Location **SEE BELOW** Job No. Project COMMUNITY LINKS ESTATE – STAGE 5 Date Tested 18/10/2021 Tested by AC

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 %	
24952	9:00	150	LOT 125 8m Front bdy, 3m Right bdy	24952	-	11.0	11.5	Adj. 0.5 DRY	2.21	<del>Adj.</del> 2.10	105.0	
			R.L. 8.48	Material Description: BROWN SILTY SANDY CLAY								
								<del>Adj.</del>		<del>Adj.</del>		
		Material Description:										
					•			<del>Adj.</del>		<del>Adj.</del>		
				Material Description:								
								Adj.		<del>Adj.</del>		
				Material Description:								
								<del>Adj.</del>		<del>Adj.</del>		
				Material Description:				<u>l</u>		l.		
					•			<del>Adj</del> .		<del>Adj</del> .		
				Material Des	cription:							
Remarks:								Specif	ied Density	Ratio 95% STD		
Test Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1				Determined on material finer than 19mm				Speen	Specified Bensity Times 70 % B1B			
Prepared By: G MCGRANN Date: 20/10/2021				NATA Accredited for compliance with ISO/IEC 17025 – Testing.				g. Grea N	Greg McGrann/Manager			
Checked By: G MCGRANN				Accreditation No.2415				Appro	Approved Signatory Date: 20/10/2021			