



22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5,6 & 7

# REPORT ON LEVEL 1

## EARTHWORKS INSPECTION AND TESTING



**PROJECT:** AURORA STAGES 5, 6 & 7 - DALEYS ROAD RIPLEY

**CONTRACTOR:** BMD URBAN PTY LTD

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## 1 INTRODUCTION

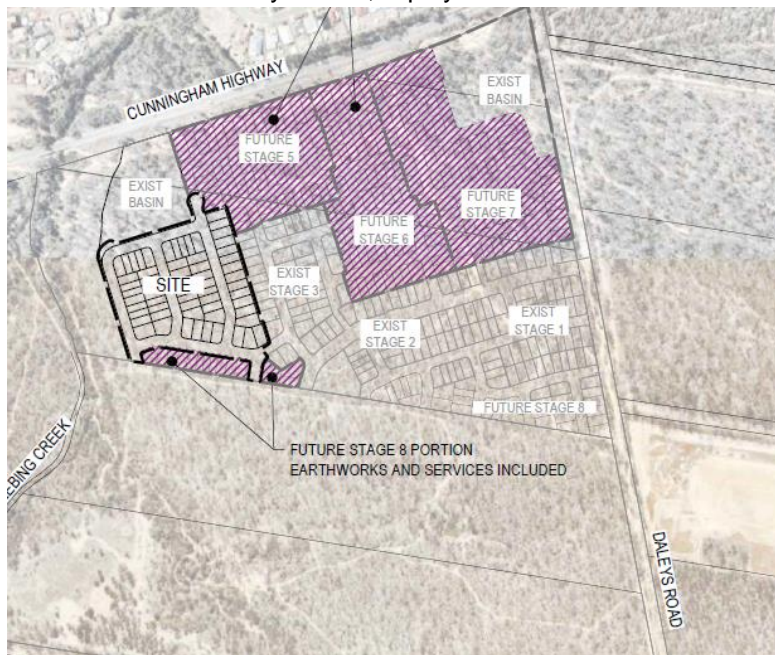
### 1.0 GENERAL

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with Clause 8.2 of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

The fill placed on the development between 9/02/23 and 27/04/23 as detailed in this report is considered to be controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

### 1.1 SITE DESCRIPTION

The site is located off Daleys Road, Ripley in Queensland. Shown below.



Stage 5, 6 & 7

## 2 WORKS AND SPECIFICATIONS

The earthworks generally comprised of Level 1 filling placed on the site. Filling was conducted by using site won materials. The fill materials were placed in layers not exceeding 150mm and moisture conditioned as required to achieve an appropriate placement Moisture Content. Padfoot Compactors were then utilised to compact the fill until the required density specifications were achieved.

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

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

### 3 PREVIOUS FILLING

The site has been previously filled by others. The previously filled area is along the eastern edge of the site. Details of any previous site filling is detailed in the Construction Sciences report ID, P2055 comp 01 dated 30/10/2021.

### 4 FILL FOUNDATION

The stripped surfaces of proposed fill areas were inspected, and proof rolled prior to placement of fill. In general, the proof rolling was carried out with the equipment used to compact the fill and a water truck. Compliance of the fill foundation and approval to commence filling was on the basis of:

- adequate removal of topsoil and organics
- soundness (minimum deflection) under proof rolling
- Suitable Benching/keying into slopes

### 5 COMPLIANCE TESTING

Test locations were randomly selected by the Geotechnical Testing Authority (GTA) Australian Soil and Concrete Testing. Compaction control tests were carried out at regular intervals throughout the placement of fill in accordance with the minimum test frequency recommendations included in the specifications. The table below summarises the test results. The test locations were not professionally surveyed and should be considered approximate.

All field density tests carried out on the structural fill meet the minimum specification requirements of 95% Standard Compaction (AS 1289 5.8.1, 5.7.1 & 2.1.1).

Test No	Test Date	Test Location			Test Level	Density Ratio %
79282	9/02/2023	Level 1 Fill	E:5347.4	N:13503.9	RL:40.0	98.5
79283	9/02/2023	Level 1 Fill	E:5372.5	N:13512.1	RL:42.0	98.5
79284	9/02/2023	Level 1 Fill	E:5359.6	N:13509.7	RL:41.5	97.5
79386	10/02/2023	Level 1 Fill	E:5358.2	N:13516.0	RL:42.0	96.5
79387	10/02/2023	Level 1 Fill	E:5344.6	N:13511.9	RL:41.1	99.5
79388	10/02/2023	Level 1 Fill	E:5340.0	N:13509.6	RL:40.8	99.0
79669	14/02/2023	Level 1 Fill	E:5490.2	N:13557.7	RL:52.3	96.5
79670	14/02/2023	Level 1 Fill	E:5498.1	N:13542.3	RL:50.4	95.5
79671	14/02/2023	Level 1 Fill	E:5400.2	N:13529.4	RL:45.2	97.0
79672	14/02/2023	Level 1 Fill	E:5401.6	N:13531.2	RL:44.6	97.5
79673	14/02/2023	Level 1 Fill	E:5487.6	N:13558.2	RL:49.3	99.5
79915	16/02/2023	Level 1 Fill	E. 5583.4	N.13313.1	RL.54.8	97.0
79916	16/02/2023	Level 1 Fill	E. 5570.8	N. 13338.9	RL.54.7	96.0
79917	16/02/2023	Level 1 Fill	E. 5571.3	N.13312.9	RL.54.5	95.0



79918	16/02/2023	Level 1 Fill	E. 5557.1	N.13332.9	RL.54.2	95.0
79919	16/02/2023	Level 1 Fill	E. 5559.4	N.13316.4	RL.53.8	96.0
79920	16/02/2023	Level 1 Fill	E. 5578.9	N.13326.4	RL.54.0	95.5
79921	16/02/2023	Level 1 Fill	E. 5589.2	N.13313.9	RL.53.9	96.0
79922	16/02/2023	Level 1 Fill	E. 5590.6	N.13334.6	RL.53.7	95.5
79957	17/02/2023	Level 1 Fill	E.5549.8	N.13384.6	RL.55.0	98.5
79958	17/02/2023	Level 1 Fill	E.5540.4	N.13368.7	RL.54.9	95.5
79959	17/02/2023	Level 1 Fill	E.5543.5	N.13372.6	RL.54.7	99.5
79960	17/02/2023	Level 1 Fill	E.5556.0	N.13387.8	RL.55.1	97.5
80287	22/02/2023	Level 1 Fill	E.5596.8	N.13391.0	RL.56.9	101.5
80288	22/02/2023	Level 1 Fill	E.5584.1	N.13290.4	RL.56.5	99.5
80289	22/02/2023	Level 1 Fill	E.5590.1	N.13285.3	RL.56.7	99.5
80290	22/02/2023	Level 1 Fill	E.5588.4	N.13287.6	RL.56.6	99.0
80343	21/02/2023	Level 1 Fill	E.5573.4	N.13330.1	RL.55.8	99.0
80344	21/02/2023	Level 1 Fill	E.5590.2	N.13324.5	RL.56.0	97.5
80345	21/02/2023	Level 1 Fill	E.5579.4	N.13311.6	RL.55.9	98.0
80346	21/02/2023	Level 1 Fill	E.5583.8	N.13305.3	RL.55.9	98.5
80347	21/02/2023	Level 1 Fill	E.5590.2	N.13296.7	RL.56.0	98.5
80348	21/02/2023	Level 1 Fill	E.5568.5	N.13336.9	RL.56.1	98.0
80625	24/02/2023	Level 1 Fill	E:5478.4	N:13391.8	RL:48.0	98.0
80626	24/02/2023	Level 1 Fill	E:5497.3	N:13381.8	RL:49.0	99.0
80627	24/02/2023	Level 1 Fill	E:5489.4	N:13399.8	RL:49.1	100.0
80628	24/02/2023	Level 1 Fill	E:5480.1	N:13365.4	RL:48.9	98.5
80629	27/02/2023	Level 1 Fill	E:5421.3	N:13324.9	RL:48.1	102.0
80630	27/02/2023	Level 1 Fill	E:5411.8	N:13322.1	RL:49.9	100.0
80631	27/02/2023	Level 1 Fill	E:5483.0	N:13369.7	RL:49.1	102.0
80632	27/02/2023	Level 1 Fill	E:5485.2	N:13396.3	RL:49.0	102.5
80838	1/03/2023	Level 1 Fill	E:5504.2	N:13372.6	RL:50.6	99.5
80839	1/03/2023	Level 1 Fill	E:5516.1	N:13363.9	RL:50.7	102.0
80840	1/03/2023	Level 1 Fill	E:5516.0	N:13341.3	RL:50.8	96.0
80841	1/03/2023	Level 1 Fill	E:5530.2	N:13337.0	RL:51.1	99.5
80842	1/03/2023	Level 1 Fill	E:5522.6	N:13334.1	RL:50.8	98.0
80843	1/03/2023	Level 1 Fill	E:5501.2	N:13369.6	RL:49.9	99.0
80844	1/03/2023	Level 1 Fill	E:5511.2	N:13362.3	RL:50.2	98.0
80845	1/03/2023	Level 1 Fill	E:5515.2	N:13340.9	RL:50.5	101.0
80846	1/03/2023	Level 1 Fill	E:5529.8	N:13332.6	RL:50.0	101.5
80948	2/03/2023	Level 1 Fill	E:5509.2	N:13370.6	RL:"51.0	95.5
80949	2/03/2023	Level 1 Fill	E:5519.2	N:13365.2	RL:51.3	98.5
80950	2/03/2023	Level 1 Fill	E:5516.2	N:13342.4	RL:51.2	97.0
80951	2/03/2023	Level 1 Fill	E:5532.6	N:13338.2	RL:51.0	95.0
80952	2/03/2023	Level 1 Fill	E:5521.6	N:13334.9	RL:51.5	98.0
80953	2/03/2023	Level 1 Fill	E:5511.2	N:13362.6	RL:51.9	96.0

80954	2/03/2023	Level 1 Fill	E:5519.4	N:13360.2	RL:51.9	101.5
80955	2/03/2023	Level 1 Fill	E:5506.2	N:13345.4	RL:52.0	96.5
80956	2/03/2023	Level 1 Fill	E:5536.9	N:13340.2	RL:51.8	95.5
80957	2/03/2023	Level 1 Fill	E:5522.7	N:13339.6	RL:52.1	95.0
81090	3/03/2023	Level 1 Fill	E:4515.1	N:13345.7	RL:51.1	96.5
81091	3/03/2023	Level 1 Fill	E:5504.2	N:13343.4	RL:44.9	97.5
81092	3/03/2023	Level 1 Fill	E:5503.0	N:13357.6	RL:49.9	97.5
81093	3/03/2023	Level 1 Fill	E:5496.6	N:13372.3	RL:49.7	96.0
81094	3/03/2023	Level 1 Fill	E:5507.2	N:13376.4	RL:50.9	100.0
81095	3/03/2023	Level 1 Fill	E:4510.1	N:13346.9	RL:50.9	100.0
81096	3/03/2023	Level 1 Fill	E:5509.3	N:13346.5	RL:43.9	97.5
81097	3/03/2023	Level 1 Fill	E:5513.6	N:13358.9	RL:49.3	99.0
81098	3/03/2023	Level 1 Fill	E:5496.0	N:13372.6	RL:49.2	97.0
81099	3/03/2023	Level 1 Fill	E:5509.1	N:13370.2	RL:50.5	97.5
81260	7/03/2023	Lot 527	12m off East Boundary	9m off South Boundary	F/L	99.0
81261	7/03/2023	Lot 526	11m off East Boundary	7m off South Boundary	0.4m BFL	96.5
81262	7/03/2023	Lot 523	3m off East Boundary	11m off South Boundary	F/L	98.5
81263	7/03/2023	Lot 522	5m off East Boundary	4m off South Boundary	0.5m BFL	97.0
81264	7/03/2023	Lot 521	6m off East Boundary	17m off South Boundary	F/L	97.5
81265	7/03/2023	Lot 520	4m off East Boundary	5m off South Boundary	F/L	96.0
81266	7/03/2023	Lot 519	3m off East Boundary	15m off South Boundary	0.6m BFL	97.0
81267	7/03/2023	Lot 625	13m off East Boundary	4m off South Boundary	F/L	100.0
81268	7/03/2023	Lot 773	6m off East Boundary	27m off South Boundary	F/L	100.5
81269	7/03/2023	Lot 774	5m off East Boundary	18m off South Boundary	F/L	98.5
81270	7/03/2023	Lot 775	7m off East Boundary	29m off South Boundary	F/L	100.0
81271	7/03/2023	Lot 776	4m off East Boundary	16m off South Boundary	F/L	96.0
81609	6/03/2023	Level 1 Fill	E:5526.2	N:13311.6	RL:52.7	98.0
81610	6/03/2023	Level 1 Fill	E:5517.3	N:13302.5	RL:51.5	101.5
81611	6/03/2023	Level 1 Fill	E:5504.3	N:13296.3	RL:50.1	100.0
81612	6/03/2023	Level 1 Fill	E:5517.7	N:13263.3	RL:50.2	100.5
81613	6/03/2023	Level 1 Fill	E:5525.6	N:13269.1	RL:51.3	100.0
81614	6/03/2023	Level 1 Fill	E:5521.2	N:13312.9	RL:52.0	98.5
81615	6/03/2023	Level 1 Fill	E:5518.9	N:13309.6	RL:51.0	101.5

81616	6/03/2023	Level 1 Fill	E:5509.6	N:13297.8	RL:49.7	102.5
81617	6/03/2023	Level 1 Fill	E:5519.6	N:13265.9	RL:50.0	102.0
81618	6/03/2023	Level 1 Fill	E:5530.7	N:13270.2	RL:50.9	101.5
82128	15/03/2023	Level 1 Fill	E:5759.1	N:13381.4	RL:57.0	98.0
82129	15/03/2023	Level 1 Fill	E:5748.4	N:13372.9	RL:57.4	97.0
82130	15/03/2023	Level 1 Fill	E:5766.7	N:13335.5	RL:57.1	97.0
82131	15/03/2023	Level 1 Fill	E:5774.3	N:13336.7	RL:56.3	97.0
82132	15/03/2023	Level 1 Fill	E:5768.2	N:13336.9	RL:56.5	100.0
82133	15/03/2023	Level 1 Fill	E:5760.9	N:13380.9	RL:56.2	100.5
82134	15/03/2023	Level 1 Fill	E:5739.2	N:13379.1	RL:56.8	95.5
82135	15/03/2023	Level 1 Fill	E:5767.4	N:13336.2	RL:56.3	98.5
82400	17/03/2023	Level 1 Fill	E:5819.8	N:13403.6	RL:51.1	98.0
82401	17/03/2023	Level 1 Fill	E:5851.1	N:13431.5	RL:49.8	101.0
82402	17/03/2023	Level 1 Fill	E:5818.0	N:13441.4	RL:49.7	98.5
82403	17/03/2023	Level 1 Fill	E:5826.6	N:13408.8	RL:50.6	102.0
82404	17/03/2023	Level 1 Fill	E:5809.7	N:13395.1	RL:49.9	98.5
82405	17/03/2023	Level 1 Fill	E:5815.4	N:13446.9	RL:49.9	98.5
82406	17/03/2023	Level 1 Fill	E:5823.7	N:13419.6	RL:50.4	98.0
82407	17/03/2023	Level 1 Fill	E:5829.8	N:13422.2	RL:50.8	102.0
82778	24/03/2023	Lot 509	12m from East Boundary	2m from South Boundary	F/L	99.0
82779	24/03/2023	Lot 510	6m from East Boundary	4m from South Boundary	F/L	97.5
82780	24/03/2023	Lot 511	10m from East Boundary	6m from South Boundary	F/L	98.5
82781	24/03/2023	Lot 512	9m from East Boundary	3m from South Boundary	F/L	98.0
85522	27/04/2023	Lot 515	7m off North Boundary	10m off West Boundary	F/L of Trench	97.0
85523	27/04/2023	Lot 705	7m off North Boundary	18m off West Boundary	0.3m BFL	96.5
85524	27/04/2023	Lot 537	11m off North Boundary	19m off West Boundary	F/L of Trench	100.5
85525	27/04/2023	Lot 708	5m off North Boundary	11m off West Boundary	0.4m BFL	98.5
85526	27/04/2023	Lot 706	8m off North Boundary	11m off West Boundary	0.6m BFL	100.0
85527	27/04/2023	Lot 704	6m off North Boundary	10m off West Boundary	0.3m BFL	99.5
85528	27/04/2023	Lot 702	6m off North Boundary	12m off West Boundary	0.4m BFL	98.0
85529	27/04/2023	Lot 538	15m off North Boundary	5m off West Boundary	F/L of Trench	100.0
85530	27/04/2023	Lot 539	20m off North Boundary	8m off West Boundary	F/L of Trench	100.5

85531	27/04/2023	Lot 540	7m off North Boundary	9m off West Boundary	F/L of Trench	99.5
85532	27/04/2023	Lot 541	18m off North Boundary	9m off West Boundary	F/L of Trench	101.0
85533	27/04/2023	Lot 542	24m off North Boundary	8m off West Boundary	F/L of Trench	97.5
85534	27/04/2023	Lot 543	15m off North Boundary	8m off West Boundary	F/L of Trench	99.0

**No. of Tests: 125****Mean: 98.5 %**

## 6 CONCLUSION

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction, as far as we have been able to determine, the structural fill placed between the 9/02/23 and 27/04/23 is considered to have been carried out in general accordance with AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

## 7 LIMITATIONS

Unless otherwise stated in this report, this report does not include: Backfill behind retaining structures, Backfill to service trenches, Road Pavements, Any Topsoil placed on the site, Slope Stability or Site Drainage.

Please do not hesitate to contact me if you have any queries.

Yours faithfully

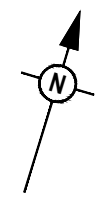


Jason Mckenna  
Laboratory Manager  
ASCT Brisbane South



# **Appendix A**

## **Cut Fill Drawings**

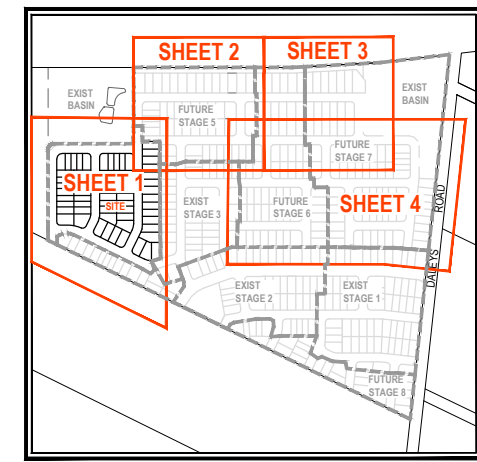


**WARNING! - EXISTING SERVICES**

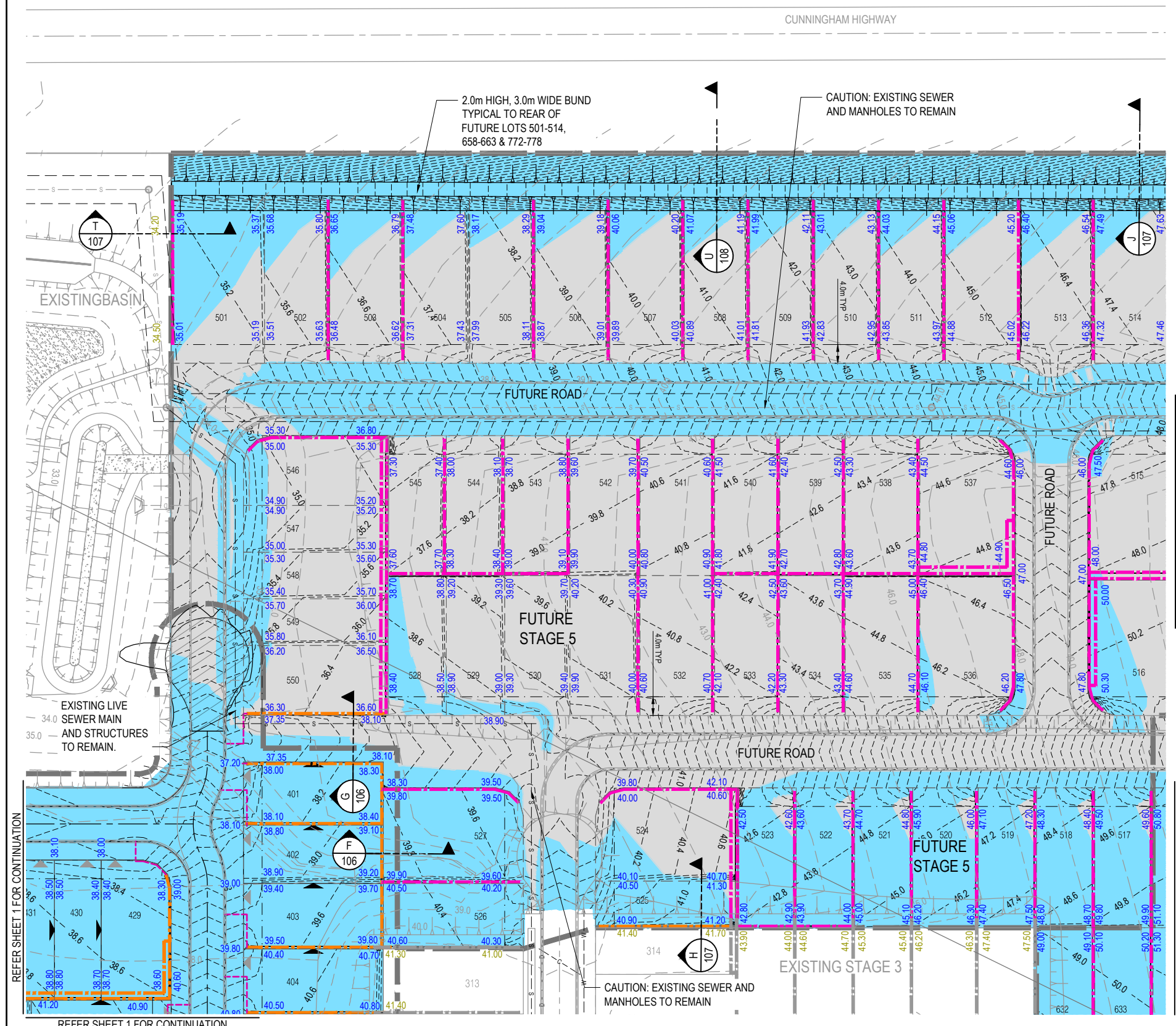
EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

THE CONTRACTOR SHOULD CONTACT THE SERVICE PROVIDER FOR FURTHER INFORMATION AND SATISFY THEMSELVES OF ANY SPECIFIC TREATMENT OR REQUIREMENTS.



**KEYPLAN**  
NOT TO SCALE



REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	14.09.22	RD	RD	ISSUED FOR CONSTRUCTION

DRAWN	STATUS
RD	<b>ISSUED FOR CONSTRUCTION</b>
DESIGN	APPROVED
RD	TROY SCHULTZ RPEQ 20631
FOR AND ON BEHALF OF PEAKURBAN PTY LTD	

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SCALE

1:500 10 5 0 10 20 A1  
1:1000

CLIENT

**ORCHARD (DALEYS) DEVELOPMENTS PTY LTD**

ASSOCIATED CONSULTANT  
LANDPARTNERS

PROJECT NAME

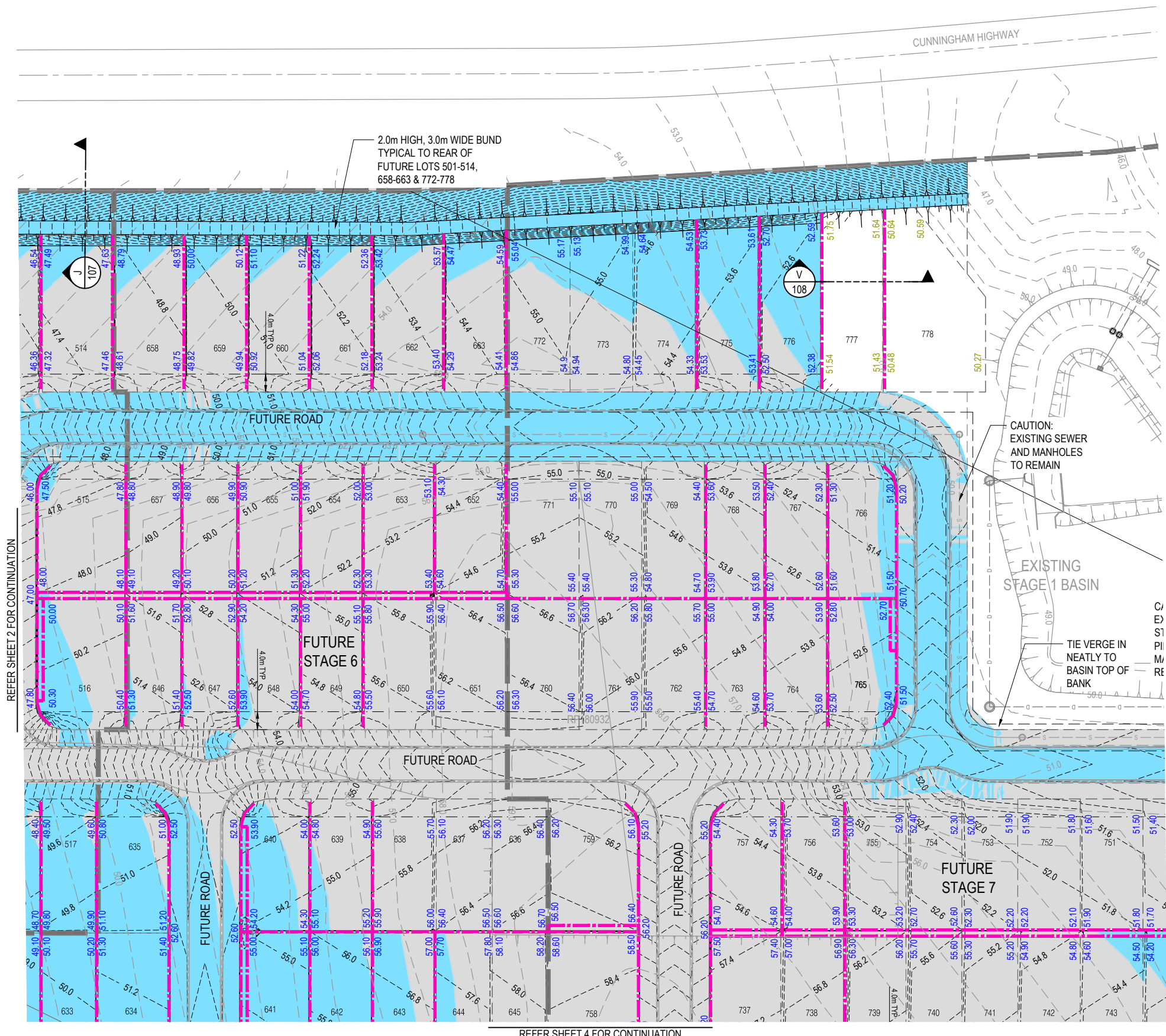
**AURORA STAGE 4**

DALEYS ROAD  
RIPLEY QLD

DRAWING TITLE

**BULK EARTHWORKS LAYOUT PLAN SHEET 2**

PROJECT No.	DRAWING No.	REVISION
21-0257	103	A

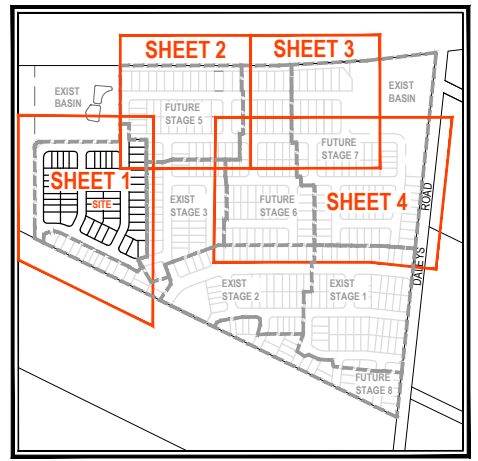
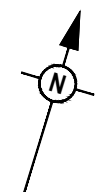


**WARNING! - EXISTING SERVICES**

EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

THE CONTRACTOR SHOULD CONTACT THE SERVICE PROVIDER FOR FURTHER INFORMATION AND SATISFY THEMSELVES OF ANY SPECIFIC TREATMENT OR REQUIREMENTS.

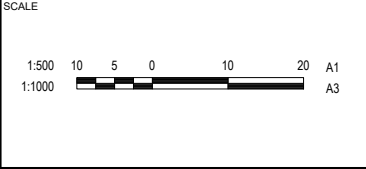


**KEYPLAN**  
NOT TO SCALE

REFER SHEET 2 FOR CONTINUATION

REFER SHEET 4 FOR CONTINUATION

REV	DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS	SCALE	CLIENT	PROJECT NAME	DRAWING TITLE
A	14.09.22	RD	RD	ISSUED FOR CONSTRUCTION	RD	ISSUED FOR CONSTRUCTION	1:500 1:1000	ORCHARD (DALEYS) DEVELOPMENTS PTY LTD	AURORA STAGE 4	BULK EARTHWORKS LAYOUT PLAN SHEET 3
					DESIGN APPROVED			ASSOCIATED CONSULTANT	DALEYS ROAD RIPLEY QLD	PROJECT No. 21-0257
					TROY SCHULTZ	RPEQ 20631		LANDPARTNERS		DRAWING No. 104
						FOR AND ON BEHALF OF PEAKURBAN PTY LTD				REVISION A



CLIENT  
**ORCHARD (DALEYS)  
DEVELOPMENTS PTY LTD**

ASSOCIATED CONSULTANT  
LANDPARTNERS

PROJECT NAME  
**AURORA STAGE 4**

DALEYS ROAD  
RIPLEY QLD

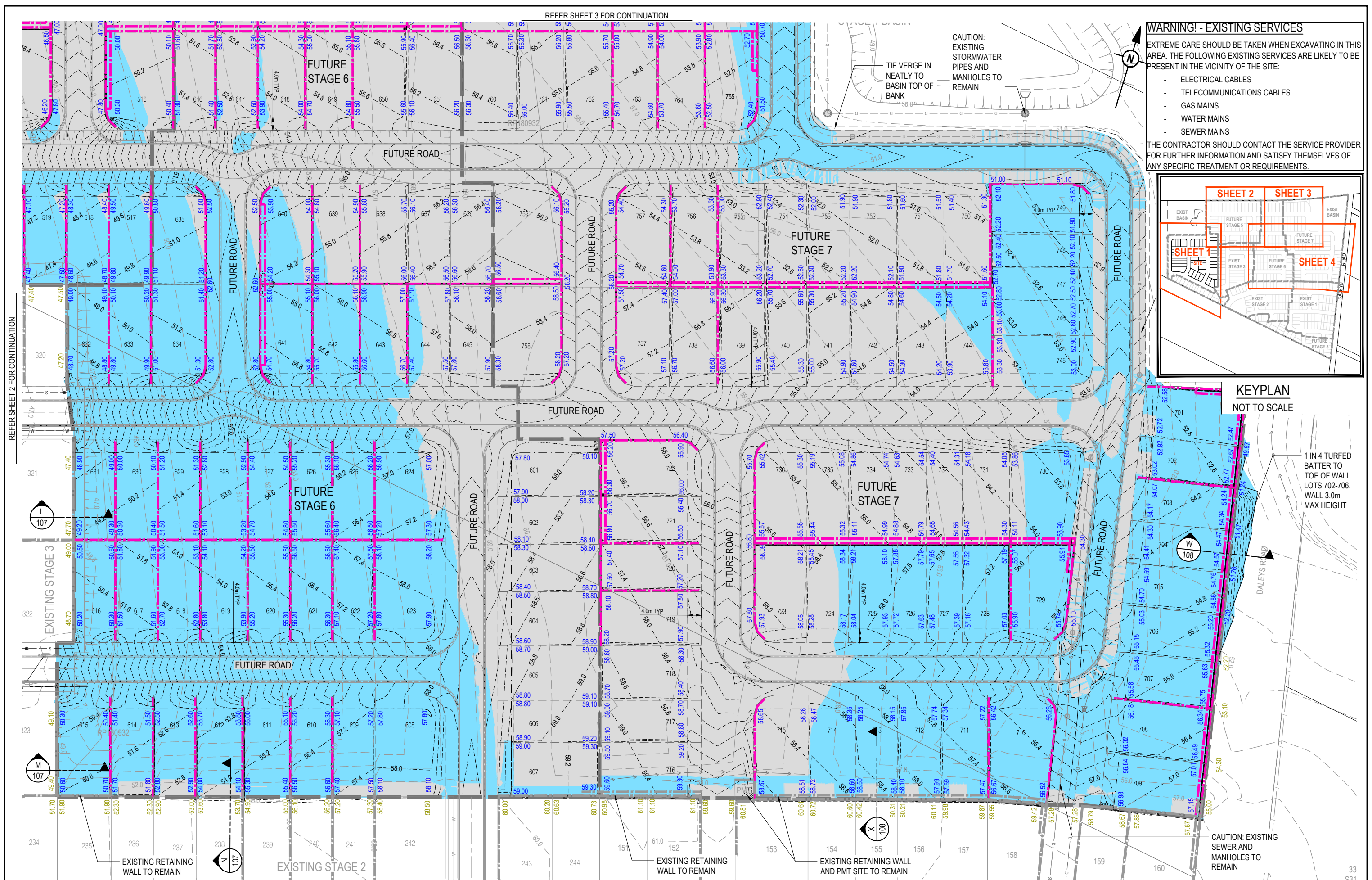
DRAWING TITLE  
**BULK EARTHWORKS LAYOUT  
PLAN SHEET 3**

PROJECT No.  
**21-0257**

DRAWING No.  
**104**

REVISION  
**A**

REFER SHEET 3 FOR CONTINUATION

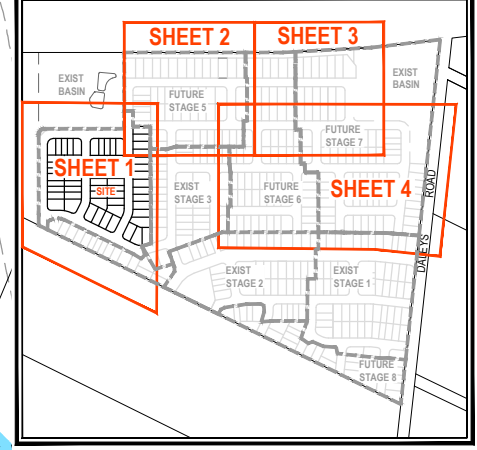


CAUTION:  
EXISTING  
STORMWATER  
PIPES AND  
MANHOLES TO  
REMAIN

**WARNING! - EXISTING SERVICES**  
EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

THE CONTRACTOR SHOULD CONTACT THE SERVICE PROVIDER FOR FURTHER INFORMATION AND SATISFY THEMSELVES OF ANY SPECIFIC TREATMENT OR REQUIREMENTS.



**KEYPLAN**  
NOT TO SCALE

1 IN 4 TURFED  
BATTER TO  
TOE OF WALL.  
LOTS 702-706.  
WALL 3.0m  
MAX HEIGHT

CAUTION: EXISTING  
SEWER AND  
MANHOLES TO  
REMAIN

REFER SHEET 2 FOR CONTINUATION

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	14.09.22	RD	RD	ISSUED FOR CONSTRUCTION

DRAWN	STATUS
RD	ISSUED FOR CONSTRUCTION
DESIGN	APPROVED
RD	TROY SCHULTZ
	RPEQ 20631
FOR AND ON BEHALF OF PEAKURBAN PTY LTD	



SCALE
1:500 10 5 0 10 20 A1
1:1000

CLIENT	ORCHARD (DALEYS) DEVELOPMENTS PTY LTD
ASSOCIATED CONSULTANT	LANDPARTNERS

PROJECT NAME	AURORA STAGE 4
DALEY'S ROAD RIPLEY QLD	

DRAWING TITLE	BULK EARTHWORKS LAYOUT PLAN SHEET 4
PROJECT No.	21-0257
DRAWING No.	105
REVISION	A

# **Appendix B**

## **Test Reports**



**ASCT Brisbane South**

Postal: PO Box 1232 Park Ridge QLD 4125  
 Laboratory: 4/31 Tradelink Road Hillcrest Q 4118  
 Telephone: 0437 776 582  
 E-Mail: brisbane.south@asct.com.au  
 Mobile: 0437 776 582  
 A.B.N. 28 608 830 306

**Compaction Control Test Report (Nuclear Gauge & Hilf)** Page: 1 of 1

Client:	BMD Constructions Pty Ltd	Report No:	2
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	23/02/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

Sample Number:	79282	79283	79284	-	-
Field Test Number:	1	2	3	-	-
Date - Field Tested:	9/02/2023	9/02/2023	9/02/2023	-	-
Time - Field Tested:	1010	1015	1020	-	-
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E:5347.4	E:5372.5	E:5359.6	-	-
Position/Offset/Northing:	(m) N:13503.9	N:13512.1	N:13509.7	-	-
Level/Layer/R.L.	RL:40.0	RL:42.0	RL:41.5	-	-
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	-	-

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> ) 2.12	2.06	2.08	-	-
Field Dry Density:	(t/m <sup>3</sup> ) 1.89	1.84	1.85	-	-
Retained Oversize (Wet basis):	(%) 0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	-	-
Material Description:	-	-	-	-	-
Moisture Content Method:	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	-	-
Field Moisture Content:	(%) 12.5	12.0	13.0	-	-
Adjusted Lab OMC:	(%) 12.1	11.9	12.9	-	-
Fraction Tested:	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	-	-
Lab Max Converted Wet Density:	(t/m <sup>3</sup> ) 2.16	2.09	2.14	-	-
Adjusted Lab Max CWD:	(t/m <sup>3</sup> ) 2.16	2.09	2.14	-	-
Compactive Effort:	Standard	Standard	Standard	-	-

**Relative Compaction & Moisture**

Moisture Variation	(%) At OMC	At OMC	At OMC	-	-
Moisture Ratio	(%) 102.0	99.0	99.0	-	-
Density Ratio	(%) 98.5	98.5	97.5	-	-

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	97.7	3	98.20	0.62	0.739
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, CI 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 21/02/2023

	Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.	
	Accreditation number: 19902	

**ASCT Brisbane South**

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 Mobile: 0437 776 582  
 A.B.N. 28 608 830 306

**Compaction Control Test Report (Nuclear Gauge & Hilf)**

Page: 1 of 1

Client: BMD Constructions Pty Ltd  
 Client Address: 1 Sandpiper Ave, Port of Brisbane QLD 4178  
 Project: Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase  
 Component: Bulk Earthworks - Level 1  
 Lot Number: -

Report No: 1  
 Report Date: 17/02/2023  
 Project No: 1462  
 Test Request: -  
 ITP/PCP: -

**Sample Information & Location**

Sample Number:		<b>79386</b>	<b>79387</b>	<b>79388</b>	-	-
Field Test Number:		1	2	3	-	-
Date - Field Tested:		10/02/2023	10/02/2023	10/02/2023	-	-
Time - Field Tested:		1150	1200	1210	-	-
Material Source / Type:		On Site - General Fill				
Remarks / Notes:						
Control Line:		-	-	-		
Location/Chainage/Easting:	(m)	E:5358.2	E:5344.6	E:5340.0	-	-
Position/Offset/Northing:	(m)	N:13516.0	N:13511.9	N:13509.6	-	-
Level/Layer/R.L.		RL:42.0	RL:41.1	RL:40.8	-	-
Layer Depth:	(mm)	-	-	-	-	-
Depth Tested:	(mm)	150	150	150	-	-

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.15	2.18	2.14	-	-
Field Dry Density:	(t/m <sup>3</sup> )	1.97	1.99	1.97	-	-
Retained Oversize (Wet basis):	(%)	3% on 19.0mm	7% on 19.0mm	4% on 19.0mm	-	-
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	-	-
Field Moisture Content:	(%)	9.0	9.5	8.5	-	-
Adjusted Lab OMC:	(%)	10.8	11.3	10.7	-	-
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	-	-
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.22	2.18	2.15	-	-
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.23	2.19	2.16	-	-
Compactive Effort:		Standard	Standard	Standard	-	-

**Relative Compaction & Moisture**

Moisture Variation	(%)	<b>1.5% Drier than OMC</b>	<b>2.0% Drier than OMC</b>	<b>2.0% Drier than OMC</b>	-	-
Moisture Ratio	(%)	<b>84.0</b>	<b>82.5</b>	<b>81.5</b>	-	-
Density Ratio	(%)	<b>96.5</b>	<b>99.5</b>	<b>99.0</b>	-	-

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	<b>97.0</b>	3	98.37	1.80	0.739
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	-2	<b>81.8</b>	3	82.67	1.16	0.739
Maximum (%)	2	<b>83.5</b>	3	82.67	1.16	0.739

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, Cl 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 16/02/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902

Approved By: K. Wesener  
 Approved Signatory



**ASCT Brisbane South**

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 Mobile: 0437 776 582  
 A.B.N. 28 608 830 306

**Compaction Control Test Report (Nuclear Gauge & Hilf)** Page: 1 of 1

Client:	BMD Constructions Pty Ltd	Report No:	3
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	27/02/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

Sample Number:	79669	79670	79671	79672	79673
Field Test Number:	1	2	3	4	5
Date - Field Tested:	14/02/2023	14/02/2023	14/02/2023	14/02/2023	14/02/2023
Time - Field Tested:	1010	1015	1020	1025	1030
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E:5490.2	E:5498.1	E:5400.2	E:5401.6	E:5487.6
Position/Offset/Northing:	(m) N:13557.7	N:13542.3	N:13529.4	N:13531.2	N:13558.2
Level/Layer/R.L.	RL:52.3	RL:50.4	RL:45.2	RL:44.6	RL:49.3
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	150	150

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.09	2.09	2.11	2.11	2.16
Field Dry Density:	(t/m <sup>3</sup> )	1.90	1.89	1.92	1.92	1.96
Retained Oversize (Wet basis):	(%)	1% on 19.0mm	2% on 19.0mm	2% on 19.0mm	3% on 19.0mm	3% on 19.0mm
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven
Field Moisture Content:	(%)	10.0	10.5	10.0	10.5	10.0
Adjusted Lab OMC:	(%)	11.8	12.5	10.7	10.5	10.5
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.16	2.19	2.17	2.16	2.16
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.16	2.19	2.18	2.17	2.16
Compactive Effort:		Standard	Standard	Standard	Standard	Standard

**Relative Compaction & Moisture**

Moisture Variation	(%)	2.0% Drier than OMC	2.0% Drier than OMC	1.0% Drier than OMC	At OMC	0.5% Drier than OMC
Moisture Ratio	(%)	84.5	84.0	93.0	98.5	95.5
Density Ratio	(%)	96.5	95.5	97.0	97.5	99.5

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	96.4	5	97.26	1.57	0.572
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, CI 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 17/02/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902

Approved By: A. Lenkeit  
 Approved Signatory





**ASCT Brisbane South**

Postal: PO Box 1232 Park Ridge QLD 4125  
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 A.B.N. 28 608 830 306

**Compaction Control Test Report (Nuclear Gauge & Hilf)** Page: 1 of 2

Client:	BMD Urban Pty Ltd	Report No:	69
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	2/03/2023
Project:	Aurora Stage 4	Project No:	1322
Component:	Level 1 Fill	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

Sample Number:	79915	79916	79917	79918	79919
Field Test Number:	1	2	3	4	5
Date - Field Tested:	16/02/2023	16/02/2023	16/02/2023	16/02/2023	16/02/2023
Time - Field Tested:	1000	1005	1010	1015	1020
Material Source / Type:	ON SITE - General Fill				
Remarks / Notes:					
Control Line:	-				
Location/Chainage/Easting:	(m) E. 5583.4	E. 5570.8	E. 5571.3	E. 5557.1	E. 5559.4
Position/Offset/Northing:	(m) N.13313.1	N. 13338.9	N.13312.9	N.13332.9	N.13316.4
Level/Layer/R.L.	RL.54.8	RL.54.7	RL.54.5	RL.54.2	RL.53.8
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	150	150

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.13	2.10	2.04	2.06	2.16
Field Dry Density:	(t/m <sup>3</sup> )	1.94	1.91	1.84	1.85	1.91
Retained Oversize (Wet basis):	(%)	3% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	2% on 19.0mm
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven
Field Moisture Content:	(%)	10.0	10.0	11.0	11.5	13.0
Adjusted Lab OMC:	(%)	11.7	11.8	13.0	11.9	12.6
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.19	2.18	2.15	2.17	2.25
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.20	2.18	2.15	2.17	2.25
Compactive Effort:		Standard	Standard	Standard	Standard	Standard

**Relative Compaction & Moisture**

Moisture Variation	(%)	2.0% Drier than OMC	2.0% Drier than OMC	2.0% Drier than OMC	At OMC	At OMC
Moisture Ratio	(%)	84.0	84.0	84.0	98.0	101.0
Density Ratio	(%)	97.0	96.0	95.0	95.0	96.0

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	95.5	8	95.79	0.65	0.453
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, CI 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 24/02/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902

Approved By:

A. Lenkeit  
Approved Signatory

**ASCT Brisbane South**

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**Compaction Control Test Report (Nuclear Gauge & Hilf)**

Page: 2 of 2

Client:	BMD Urban Pty Ltd	Report No:	69
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	2/03/2023
Project:	Aurora Stage 4	Project No:	1322
Component:	Level 1 Fill	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

	79920	79921	79922	-	-
Sample Number:	6	7	8	-	-
Field Test Number:	16/02/2023	16/02/2023	16/02/2023	-	-
Date - Field Tested:	1025	1030	1035	-	-
Time - Field Tested:	ON SITE - General Fill				
Material Source / Type:					
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E. 5578.9	E. 5589.2	E. 5590.6	-	-
Position/Offset/Northing:	(m) N.13326.4	N.13313.9	N.13334.6	-	-
Level/Layer/R.L.	RL.54.0	RL.53.9	RL.53.7	-	-
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	-	-

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.15	2.13	2.15	-	-
Field Dry Density:	(t/m <sup>3</sup> )	1.92	1.89	1.92	-	-
Retained Oversize (Wet basis):	(%)	4% on 19.0mm	2% on 19.0mm	3% on 19.0mm	-	-
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	-	-
Field Moisture Content:	(%)	11.5	13.0	12.0	-	-
Adjusted Lab OMC:	(%)	11.6	12.7	12.1	-	-
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	-	-
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.25	2.22	2.25	-	-
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.25	2.22	2.25	-	-
Compactive Effort:		Standard	Standard	Standard	-	-

**Relative Compaction & Moisture**

Moisture Variation	(%)	At OMC	At OMC	At OMC	-	-
Moisture Ratio		101.0	101.0	101.0	-	-
Density Ratio	(%)	95.5	96.0	95.5	-	-

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	95.5	8	95.79	0.65	0.453
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, Cl 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 24/02/2023



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Accreditation number: 19902

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**Compaction Control Test Report (Nuclear Gauge & Hilf)**

Page: 1 of 1

Client: BMD Constructions Pty Ltd  
 Client Address: 1 Sandpiper Ave, Port of Brisbane QLD 4178  
 Project: Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase  
 Component: Level 1 Fill  
 Lot Number: -

Report No: 4  
 Report Date: 6/03/2023  
 Project No: 1462  
 Test Request: -  
 ITP/PCP:

**Sample Information & Location**

Sample Number:	79957	79958	79959	79960	-
Field Test Number:	1	2	3	4	-
Date - Field Tested:	17/02/2023	17/02/2023	17/02/2023	17/02/2023	-
Time - Field Tested:	1200	1205	1210	1215	-
Material Source / Type:	On site - General Fill				
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E.5549.8	E.5540.4	E.5543.5	E.5556.0	-
Position/Offset/Northing:	(m) N.13384.6	N.13368.7	N.13372.6	N.13387.8	-
Level/Layer/R.L.	RL.55.0	RL.54.9	RL.54.7	RL.55.1	-
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	150	-

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> ) 2.15	2.12	2.13	2.08	-
Field Dry Density:	(t/m <sup>3</sup> ) 1.95	1.92	1.90	1.87	-
Retained Oversize (Wet basis):	(%) 3% on 19.0mm	2% on 19.0mm	0% on 19.0mm	0% on 19.0mm	-
Material Description:	-	-	-	-	-
Moisture Content Method:	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	-
Field Moisture Content:	(%) 10.0	10.0	12.0	11.5	-
Adjusted Lab OMC:	(%) 11.0	9.6	13.2	12.0	-
Fraction Tested:	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	-
Lab Max Converted Wet Density:	(t/m <sup>3</sup> ) 2.17	2.21	2.14	2.14	-
Adjusted Lab Max CWD:	(t/m <sup>3</sup> ) 2.18	2.21	2.14	2.14	-
Compactive Effort:	Standard	Standard	Standard	Standard	-

**Relative Compaction & Moisture**

Moisture Variation	(%) 1.0% Drier than OMC	0.5% Wetter than OMC	1.0% Drier than OMC	0.5% Drier than OMC	-
Moisture Ratio	(%) 92.0	105.0	91.5	98.0	-
Density Ratio	(%) 98.5	95.5	99.5	97.5	-

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	96.7	4	97.80	1.64	0.640
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, CI 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 24/02/2023 to 27/02/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902

Approved By:

A. Lenkeit  
 Approved Signatory



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**Compaction Control Test Report (Nuclear Gauge & Hilf)** Page: 1 of 1

Client:	BMD Constructions Pty Ltd	Report No:	6
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	8/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Level 1 Fill	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

Sample Number:	80287	80288	80289	80290	-
Field Test Number:	1	2	3	4	-
Date - Field Tested:	22/02/2023	22/02/2023	22/02/2023	22/02/2023	-
Time - Field Tested:	0100	1005	1010	1015	-
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E.5596.8	E.5584.1	E.5590.1	E.5588.4	-
Position/Offset/Northing:	(m) N.13391.0	N.13290.4	N.13285.3	N.13287.6	-
Level/Layer/R.L.	RL.56.9	RL.56.5	RL.56.7	RL.56.6	-
Layer Depth:	(mm) 0	0	0	0	-
Depth Tested:	(mm) 150	150	150	150	-

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.15	2.11	2.13	2.10	-
Field Dry Density:	(t/m <sup>3</sup> )	1.95	1.91	1.94	1.92	-
Retained Oversize (Wet basis):	(%)	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	-
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	-
Field Moisture Content:	(%)	10.0	10.5	9.5	9.5	-
Adjusted Lab OMC:	(%)	11.9	12.3	11.8	11.4	-
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	-
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.11	2.12	2.13	2.12	-
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.11	2.12	2.13	2.12	-
Compactive Effort:		Standard	Standard	Standard	Standard	-

**Relative Compaction & Moisture**

Moisture Variation	(%)	2.0% Drier than OMC	2.0% Drier than OMC	2.0% Drier than OMC	2.0% Drier than OMC	-
Moisture Ratio	(%)	82.5	83.5	82.0	82.5	-
Density Ratio	(%)	101.5	99.5	99.5	99.0	-

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	99.3	4	99.98	1.07	0.640
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, CI 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 02/03/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902

Approved By:

A. Lenkeit  
Approved Signatory



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**Compaction Control Test Report (Nuclear Gauge & Hilf)** Page: 1 of 2

Client:	BMD Constructions Pty Ltd	Report No:	5
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	8/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

Sample Number:	80343	80344	80345	80346	80347
Field Test Number:	1	2	3	4	5
Date - Field Tested:	21/02/2023	21/02/2023	21/02/2023	21/02/2023	21/02/2023
Time - Field Tested:	1000	1005	1010	1015	1020
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E.5573.4	E.5590.2	E.5579.4	E.5583.8	E.5590.2
Position/Offset/Northing:	(m) N.13330.1	N.13324.5	N.13311.6	N.13305.3	N.13296.7
Level/Layer/R.L.	RL.55.8	RL.56.0	RL.55.9	RL.55.9	RL.56.0
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	150	150

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.14	2.10	2.14	2.13	2.15
Field Dry Density:	(t/m <sup>3</sup> )	1.94	1.91	1.95	1.93	1.98
Retained Oversize (Wet basis):	(%)	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven
Field Moisture Content:	(%)	10.5	10.0	9.5	10.5	8.0
Adjusted Lab OMC:	(%)	10.9	10.5	10.0	10.6	10.2
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.16	2.16	2.18	2.15	2.18
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.16	2.16	2.18	2.15	2.18
Compactive Effort:		Standard	Standard	Standard	Standard	Standard

**Relative Compaction & Moisture**

Moisture Variation	(%)	0.5% Drier than OMC	0.5% Drier than OMC	0.5% Drier than OMC	0.5% Drier than OMC	2.0% Drier than OMC
Moisture Ratio	(%)	95.0	96.5	97.5	97.5	80.5
Density Ratio	(%)	99.0	97.5	98.0	98.5	98.5

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	98.0	6	98.27	0.49	0.523
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, CI 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 03/03/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902

Approved By: A. Lenkeit  
 Approved Signatory



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**Compaction Control Test Report (Nuclear Gauge & Hilf)** Page: 2 of 2

Client:	BMD Constructions Pty Ltd	Report No:	5
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	8/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

Sample Number:	80348	-	-	-	-
Field Test Number:	6	-	-	-	-
Date - Field Tested:	21/02/2023	-	-	-	-
Time - Field Tested:	1025	-	-	-	-
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E.5568.5	-	-	-	-
Position/Offset/Northing:	(m) N.13336.9	-	-	-	-
Level/Layer/R.L.	RL.56.1	-	-	-	-
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	-	-	-	-

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.11	-	-	-	-
Field Dry Density:	(t/m <sup>3</sup> )	1.95	-	-	-	-
Retained Oversize (Wet basis):	(%)	0% on 19.0mm	-	-	-	-
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	-	-	-	-
Field Moisture Content:	(%)	8.5	-	-	-	-
Adjusted Lab OMC:	(%)	10.4	-	-	-	-
Fraction Tested:		Passing 19.0mm	-	-	-	-
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.16	-	-	-	-
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.16	-	-	-	-
Compactive Effort:		Standard	-	-	-	-

**Relative Compaction & Moisture**

Moisture Variation	(%)	2.0% Drier than OMC	-	-	-	-
Moisture Ratio	(%)	81.5	-	-	-	-
Density Ratio	(%)	98.0	-	-	-	-


Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	98.0	6	98.27	0.49	0.523
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, Cl 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 03/03/2023


 Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.  
 Accreditation number: 19902



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**Compaction Control Test Report (Nuclear Gauge & Hilf)** Page: 1 of 1

Client:	BMD Constructions Pty Ltd	Report No:	8
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	13/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

Sample Number:	80625	80626	80627	80628	-
Field Test Number:	1	2	3	4	-
Date - Field Tested:	24/02/2023	24/02/2023	24/02/2023	24/02/2023	-
Time - Field Tested:	1000	1005	1010	1015	-
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E:5478.4	E:5497.3	E:5489.4	E:5480.1	-
Position/Offset/Northing:	(m) N:13391.8	N:13381.8	N:13399.8	N:13365.4	-
Level/Layer/R.L.	RL:48.0	RL:49.0	RL:49.1	RL:48.9	-
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	150	-

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.15	2.14	2.17	2.15	-
Field Dry Density:	(t/m <sup>3</sup> )	1.96	1.95	1.99	1.98	-
Retained Oversize (Wet basis):	(%)	0% on 19.0mm	0% on 19.0mm	1% on 19.0mm	0% on 19.0mm	-
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	-
Field Moisture Content:	(%)	9.5	10.0	9.5	8.5	-
Adjusted Lab OMC:	(%)	10.7	11.2	10.7	10.5	-
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	-
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.19	2.16	2.17	2.18	-
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.19	2.16	2.17	2.18	-
Compactive Effort:		Standard	Standard	Standard	Standard	-

**Relative Compaction & Moisture**

Moisture Variation	(%)	1.0% Drier than OMC	1.5% Drier than OMC	1.5% Drier than OMC	2.0% Drier than OMC	-
Moisture Ratio	(%)	90.5	88.5	87.0	81.0	-
Density Ratio	(%)	98.0	99.0	100.0	98.5	-

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	98.3	4	98.85	0.91	0.640
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, CI 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 07/03/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902

Approved By:

A. Lenkeit  
 Approved Signatory



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**Compaction Control Test Report (Nuclear Gauge & Hilf)** Page: 1 of 1

Client:	BMD Constructions Pty Ltd	Report No:	9
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	15/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

Sample Number:	80629	80630	80631	80632	-
Field Test Number:	1	2	3	4	-
Date - Field Tested:	27/02/2023	24/02/2023	24/02/2023	24/02/2023	-
Time - Field Tested:	1400	1405	1410	1415	-
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E:5421.3	E:5411.8	E:5483.0	E:5485.2	-
Position/Offset/Northing:	(m) N:13324.9	N:13322.1	N:13369.7	N:13396.3	-
Level/Layer/R.L.	RL:48.1	RL:49.9	RL:49.1	RL:49.0	-
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	150	-

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.15	2.12	2.15	2.19	-
Field Dry Density:	(t/m <sup>3</sup> )	1.97	1.95	1.98	2.01	-
Retained Oversize (Wet basis):	(%)	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	-
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	-
Field Moisture Content:	(%)	9.0	9.0	9.0	9.0	-
Adjusted Lab OMC:	(%)	11.2	10.3	10.6	10.9	-
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	-
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.10	2.12	2.12	2.13	-
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.10	2.12	2.12	2.13	-
Compactive Effort:		Standard	Standard	Standard	Standard	-

**Relative Compaction & Moisture**

Moisture Variation	(%)	2.0% Drier than OMC	1.5% Drier than OMC	2.0% Drier than OMC	2.0% Drier than OMC	-
Moisture Ratio	(%)	82.0	85.5	83.0	81.5	-
Density Ratio	(%)	102.0	100.0	102.0	102.5	-

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	100.8	4	101.63	1.27	0.640
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, CI 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 09/03/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902

Approved By: A. Lenkeit  
 Approved Signatory





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**Compaction Control Test Report (Nuclear Gauge & Hilf)** Page: 1 of 2

Client:	BMD Constructions Pty Ltd	Report No:	10
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	17/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

Sample Number:	80838	80839	80840	80841	80842
Field Test Number:	1	2	3	4	5
Date - Field Tested:	1/03/2023	1/03/2023	1/03/2023	1/03/2023	1/03/2023
Time - Field Tested:	1430	1435	1440	1445	1450
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E:5504.2	E:5516.1	E:5516.0	E:5530.2	E:5522.6
Position/Offset/Northing:	(m) N:13372.6	N:13363.9	N:13341.3	N:13337.0	N:13334.1
Level/Layer/R.L.	RL:50.6	RL:50.7	RL:50.8	RL:51.1	RL:50.8
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	150	150

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.15	2.22	2.10	2.17	2.13
Field Dry Density:	(t/m <sup>3</sup> )	1.98	2.03	1.96	2.02	1.96
Retained Oversize (Wet basis):	(%)	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven
Field Moisture Content:	(%)	8.5	9.5	7.0	7.5	8.5
Adjusted Lab OMC:	(%)	10.1	10.0	9.8	9.6	9.9
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.16	2.18	2.19	2.18	2.17
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.16	2.18	2.19	2.18	2.17
Compactive Effort:		Standard	Standard	Standard	Standard	Standard

**Relative Compaction & Moisture**

Moisture Variation	(%)	1.5% Drier than OMC	0.5% Drier than OMC	3.0% Drier than OMC	2.0% Drier than OMC	1.5% Drier than OMC
Moisture Ratio	(%)	84.5	93.0	71.5	79.0	83.5
Density Ratio	(%)	99.5	102.0	96.0	99.5	98.0

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	98.6	9	99.44	1.91	0.427
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, CI 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 16/03/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902

Approved By:

A. Lenkeit  
Approved Signatory



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**Compaction Control Test Report (Nuclear Gauge & Hilf)** Page: 2 of 2

Client:	BMD Constructions Pty Ltd	Report No:	10
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	17/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

	80843	80844	80845	80846	-
Sample Number:	6	7	8	9	-
Field Test Number:	1/03/2023	1/03/2023	1/03/2023	1/03/2023	-
Date - Field Tested:	1455	1500	1505	1510	-
Time - Field Tested:	On Site - General Fill				
Material Source / Type:	-				
Remarks / Notes:	-				
Control Line:	-				
Location/Chainage/Easting:	(m) E:5501.2	E:5511.2	E:5515.2	E:5529.8	-
Position/Offset/Northing:	(m) N:13369.6	N:13362.3	N:13340.9	N:13332.6	-
Level/Layer/R.L.	RL:49.9	RL:50.2	RL:50.5	RL:50.0	-
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	150	-

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.14	2.13	2.21	2.22	-
Field Dry Density:	(t/m <sup>3</sup> )	2.00	1.96	2.04	2.04	-
Retained Oversize (Wet basis):	(%)	5% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	-
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	-
Field Moisture Content:	(%)	7.0	9.0	8.0	8.5	-
Adjusted Lab OMC:	(%)	10.1	10.7	9.5	10.2	-
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	-
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.15	2.17	2.18	2.18	-
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.16	2.17	2.18	2.18	-
Compactive Effort:		Standard	Standard	Standard	Standard	-

**Relative Compaction & Moisture**

Moisture Variation	(%)	3.0% Drier than OMC	2.0% Drier than OMC	1.5% Drier than OMC	1.5% Drier than OMC	-
Moisture Ratio	(%)	69.5	83.5	85.5	84.5	-
Density Ratio	(%)	99.0	98.0	101.0	101.5	-

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	98.6	9	99.44	1.91	0.427
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, Cl 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 16/03/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902



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**Compaction Control Test Report (Nuclear Gauge & Hilf)** Page: 1 of 2

Client:	BMD Constructions Pty Ltd	Report No:	12
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	21/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

Sample Number:	80948	80949	80950	80951	80952
Field Test Number:	1	2	3	4	5
Date - Field Tested:	2/03/2023	2/03/2023	2/03/2023	2/03/2023	2/03/2023
Time - Field Tested:	1000	1005	1010	1015	1020
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting: (m)	E:5509.2	E:5519.2	E:5516.2	E:5532.6	E:5521.6
Position/Offset/Northing: (m)	N:13370.6	N:13365.2	N:13342.4	N:13338.2	N:13334.9
Level/Layer/R.L.	RL:51.0	RL:51.3	RL:51.2	RL:51.0	RL:51.5
Layer Depth: (mm)	-	-	-	-	-
Depth Tested: (mm)	150	150	150	150	150

**Field & Laboratory Results**

Field Wet Density: (t/m <sup>3</sup> )	2.05	2.18	2.14	2.10	2.19
Field Dry Density: (t/m <sup>3</sup> )	1.84	1.95	1.93	1.90	2.00
Retained Oversize (Wet basis): (%)	0% on 19.0mm	5% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm
Material Description:	-	-	-	-	-
Moisture Content Method:	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven
Field Moisture Content: (%)	11.5	11.5	11.0	10.5	9.5
Adjusted Lab OMC: (%)	11.8	11.8	11.0	10.9	11.4
Fraction Tested:	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm
Lab Max Converted Wet Density: (t/m <sup>3</sup> )	2.15	2.20	2.20	2.20	2.24
Adjusted Lab Max CWD: (t/m <sup>3</sup> )	2.15	2.21	2.20	2.20	2.24
Compactive Effort:	Standard	Standard	Standard	Standard	Standard

**Relative Compaction & Moisture**

Moisture Variation (%)	0.5% Drier than OMC	At OMC	At OMC	0.5% Drier than OMC	1.5% Drier than OMC
Moisture Ratio (%)	97.0	99.0	98.0	97.5	85.0
Density Ratio (%)	95.5	98.5	97.0	95.0	98.0

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	96.1	10	96.93	2.02	0.405
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, CI 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 20/03/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902

Approved By: A. Lenkeit  
 Approved Signatory



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**Compaction Control Test Report (Nuclear Gauge & Hilf)**

Page: 2 of 2

Client:	BMD Constructions Pty Ltd	Report No:	12
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	21/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

	80953	80954	80955	80956	80957
Sample Number:	6	7	8	9	10
Field Test Number:	2/03/2023	2/03/2023	2/03/2023	2/03/2023	2/03/2023
Date - Field Tested:	1025	1030	1035	1040	1045
Time - Field Tested:	On Site - General Fill				
Material Source / Type:					
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E:5511.2	E:5519.4	E:5506.2	E:5536.9	E:5522.7
Position/Offset/Northing:	(m) N:13362.6	N:13360.2	N:13345.4	N:13340.2	N:13339.6
Level/Layer/R.L.	RL:51.9	RL:51.9	RL:52.0	RL:51.8	RL:52.1
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	150	150

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.08	2.22	2.10	2.06	2.08
Field Dry Density:	(t/m <sup>3</sup> )	1.87	1.99	1.90	1.85	1.88
Retained Oversize (Wet basis):	(%)	0% on 19.0mm	2% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven
Field Moisture Content:	(%)	11.0	11.5	10.5	11.5	10.5
Adjusted Lab OMC:	(%)	11.0	11.5	10.4	11.9	11.1
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.16	2.18	2.17	2.16	2.19
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.16	2.18	2.17	2.16	2.19
Compactive Effort:		Standard	Standard	Standard	Standard	Standard

**Relative Compaction & Moisture**

Moisture Variation	(%)	At OMC	At OMC	At OMC	0.5% Dryer than OMC	0.5% Dryer than OMC
Moisture Ratio	(%)	98.5	98.0	98.5	97.0	96.5
Density Ratio	(%)	96.0	101.5	96.5	95.5	95.0

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	96.1	10	96.93	2.02	0.405
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, Cl 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 20/03/2023



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**Compaction Control Test Report (Nuclear Gauge & Hilf)**

Page: 1 of 2

Client:	BMD Constructions Pty Ltd	Report No:	11
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	17/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

Sample Number:	81090	81091	81092	81093	81094
Field Test Number:	1	2	3	4	5
Date - Field Tested:	3/03/2023	3/03/2023	3/03/2023	3/03/2023	3/03/2023
Time - Field Tested:	1005	1015	1020	1025	1030
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E:4515.1	E:5504.2	E:5503.0	E:5496.6	E:5507.2
Position/Offset/Northing:	(m) N:13345.7	N:13343.4	N:13357.6	N:13372.3	N:13376.4
Level/Layer/R.L.	RL:51.1	RL:44.9	RL:49.9	RL:49.7	RL:50.9
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	150	150

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.11	2.12	2.13	2.11	2.19
Field Dry Density:	(t/m <sup>3</sup> )	1.92	1.93	1.96	1.94	1.99
Retained Oversize (Wet basis):	(%)	3% on 19.0mm	1% on 19.0mm	3% on 19.0mm	1% on 19.0mm	1% on 19.0mm
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven
Field Moisture Content:	(%)	10.5	10.0	9.0	9.0	9.5
Adjusted Lab OMC:	(%)	11.7	11.6	11.0	10.9	11.6
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.19	2.17	2.19	2.20	2.18
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.19	2.17	2.19	2.20	2.18
Compactive Effort:		Standard	Standard	Standard	Standard	Standard

**Relative Compaction & Moisture**

Moisture Variation	(%)	1.5% Drier than OMC	2.0% Drier than OMC	2.0% Drier than OMC	2.0% Drier than OMC	2.0% Drier than OMC
Moisture Ratio	(%)	88.0	84.0	81.5	80.5	82.5
Density Ratio	(%)	96.5	97.5	97.5	96.0	100.0

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	97.3	10	97.88	1.40	0.405
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, CI 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 14/02/2023 to 14/03/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902

Approved By:

A. Lenkeit  
Approved Signatory



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**Compaction Control Test Report (Nuclear Gauge & Hilf)**

Page: 2 of 2

Client:	BMD Constructions Pty Ltd	Report No:	11
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	17/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

	81095	81096	81097	81098	81099
Sample Number:	6	7	8	9	10
Field Test Number:	3/03/2023	3/03/2023	3/03/2023	3/03/2023	3/03/2023
Date - Field Tested:	1035	1040	1045	1050	1100
Time - Field Tested:	On Site - General Fill				
Material Source / Type:					
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E:4510.1	E:5509.3	E:5513.6	E:5496.0	E:5509.1
Position/Offset/Northing:	(m) N:13346.9	N:13346.5	N:13358.9	N:13372.6	N:13370.2
Level/Layer/R.L.	RL:50.9	RL:43.9	RL:49.3	RL:49.2	RL:50.5
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	150	150

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.19	2.12	2.15	2.14	2.14
Field Dry Density:	(t/m <sup>3</sup> )	2.00	1.93	1.96	1.97	1.96
Retained Oversize (Wet basis):	(%)	2% on 19.0mm	2% on 19.0mm	1% on 19.0mm	1% on 19.0mm	2% on 19.0mm
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven
Field Moisture Content:	(%)	9.5	10.0	9.5	9.0	9.0
Adjusted Lab OMC:	(%)	11.7	11.7	11.3	10.7	11.0
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.19	2.17	2.18	2.20	2.19
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.19	2.17	2.18	2.20	2.19
Compactive Effort:		Standard	Standard	Standard	Standard	Standard

**Relative Compaction & Moisture**

Moisture Variation	(%)	2.0% Drier than OMC	2.0% Drier than OMC	2.0% Drier than OMC	2.0% Drier than OMC	2.0% Drier than OMC
Moisture Ratio	(%)	82.5	84.0	84.0	82.5	83.0
Density Ratio	(%)	100.0	97.5	99.0	97.0	97.5

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	97.3	10	97.88	1.40	0.405
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, Cl 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 14/02/2023 to 14/03/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902

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**Compaction Control Test Report (Nuclear Gauge & Hilf)**

Page: 1 of 3

Client:	BMD Constructions Pty Ltd	Report No:	14
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	23/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

Sample Number:	81260	81261	81262	81263	81264
Field Test Number:	1	2	3	4	5
Date - Field Tested:	7/03/2023	7/03/2023	7/03/2023	7/03/2023	7/03/2023
Time - Field Tested:	1505	1510	1515	1525	1535
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	Lot 527	Lot 526	Lot 523	Lot 522	Lot 521
Location/Chainage/Easting: (m)	12m off East Boundary	11m off East Boundary	3m off East Boundary	5m off East Boundary	6m off East Boundary
Position/Offset/Northing: (m)	9m off South Boundary	7m off South Boundary	11m off South Boundary	4m off South Boundary	17m off South Boundary
Level/Layer/R.L.	F/L	0.4m BFL	F/L	0.5m BFL	F/L
Layer Depth: (mm)	-	-	-	-	-
Depth Tested: (mm)	150	150	150	150	150

**Field & Laboratory Results**

Field Wet Density: (t/m <sup>3</sup> )	2.11	2.08	2.10	2.10	2.08
Field Dry Density: (t/m <sup>3</sup> )	1.93	1.89	1.91	1.93	1.90
Retained Oversize (Wet basis): (%)	1% on 19.0mm	7% on 19.0mm	2% on 19.0mm	5% on 19.0mm	4% on 19.0mm
Material Description:	-	-	-	-	-
Moisture Content Method:	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven
Field Moisture Content: (%)	9.0	10.0	9.5	9.0	9.5
Adjusted Lab OMC: (%)	11.0	11.3	9.5	10.9	11.0
Fraction Tested:	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm
Lab Max Converted Wet Density: (t/m <sup>3</sup> )	2.13	2.12	2.12	2.15	2.13
Adjusted Lab Max CWD: (t/m <sup>3</sup> )	2.13	2.15	2.13	2.16	2.14
Compactive Effort:	Standard	Standard	Standard	Standard	Standard

**Relative Compaction & Moisture**

Moisture Variation (%)	2.0% Drier than OMC	1.5% Drier than OMC	At OMC	1.5% Drier than OMC	1.5% Drier than OMC
Moisture Ratio (%)	83.0	87.0	102.0	84.0	87.0
Density Ratio (%)	99.0	96.5	98.5	97.0	97.5

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	97.5	12	98.03	1.58	0.370
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, CI 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 17/03/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902

Approved By:

A. Lenkeit  
Approved Signatory



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**Compaction Control Test Report (Nuclear Gauge & Hilf)**

Page: 2 of 3

Client:	BMD Constructions Pty Ltd	Report No:	14
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	23/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

	81265	81266	81267	81268	81269
Sample Number:	6	7	8	9	10
Field Test Number:	7/03/2023	7/03/2023	7/03/2023	7/03/2023	7/03/2023
Date - Field Tested:	1555	1600	1605	1615	1620
Time - Field Tested:	On Site - General Fill				
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	Lot 520	Lot 519	Lot 625	Lot 773	Lot 774
Location/Chainage/Easting:	4m off East Boundary	3m off East Boundary	13m off East Boundary	6m off East Boundary	5m off East Boundary
Position/Offset/Northing:	5m off South Boundary	15m off South Boundary	4m off South Boundary	27m off South Boundary	18m off South Boundary
Level/Layer/R.L.	F/L	0.6m BFL	F/L	F/L	F/L
Layer Depth:	-	-	-	-	-
Depth Tested:	150	150	150	150	150

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.05	2.11	2.07	2.09	2.09
Field Dry Density:	(t/m <sup>3</sup> )	1.88	1.94	1.84	1.89	1.89
Retained Oversize (Wet basis):	(%)	5% on 19.0mm	3% on 19.0mm	4% on 19.0mm	1% on 19.0mm	3% on 19.0mm
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven
Field Moisture Content:	(%)	9.0	8.5	12.0	11.0	10.5
Adjusted Lab OMC:	(%)	10.8	9.7	14.1	12.3	12.5
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.12	2.16	2.06	2.08	2.11
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.13	2.17	2.07	2.08	2.12
Compactive Effort:		Standard	Standard	Standard	Standard	Standard

**Relative Compaction & Moisture**

Moisture Variation	(%)	1.5% Drier than OMC	1.5% Drier than OMC	2.0% Drier than OMC	1.5% Drier than OMC	2.0% Drier than OMC
Moisture Ratio	(%)	84.5	85.5	86.5	89.0	84.5
Density Ratio	(%)	96.0	97.0	100.0	100.5	98.5

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	97.5	12	98.03	1.58	0.370
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, Cl 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 17/03/2023



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Accreditation number: 19902





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**Compaction Control Test Report (Nuclear Gauge & Hilf)**

Page: 3 of 3

Client:	BMD Constructions Pty Ltd	Report No:	14
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	23/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	

**Sample Information & Location**

Sample Number:	81270	81271	-	-	-
Field Test Number:	11	12	-	-	-
Date - Field Tested:	7/03/2023	7/03/2023	-	-	-
Time - Field Tested:	1625	1630	-	-	-
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	Lot 775	Lot 776	-	-	-
Location/Chainage/Easting:	(m) 7m off East Boundary	4m off East Boundary	-	-	-
Position/Offset/Northing:	(m) 29m off South Boundary	16m off South Boundary	-	-	-
Level/Layer/R.L.	F/L	F/L	-	-	-
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	(mm)	-	-

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.08	2.06	-	-	-
Field Dry Density:	(t/m <sup>3</sup> )	1.88	1.88	-	-	-
Retained Oversize (Wet basis):	(%)	2% on 19.0mm	4% on 19.0mm	-	-	-
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	-	-	-
Field Moisture Content:	(%)	10.5	9.5	-	-	-
Adjusted Lab OMC:	(%)	12.5	11.7	-	-	-
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	-	-	-
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.07	2.14	-	-	-
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.08	2.15	-	-	-
Compactive Effort:		Standard	Standard	-	-	-

**Relative Compaction & Moisture**

Moisture Variation	(%)	2.0% Drier than OMC	2.0% Drier than OMC	-	-	-
Moisture Ratio	(%)	84.0	83.0	-	-	-
Density Ratio	(%)	100.0	96.0	-	-	-

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	97.5	12	98.03	1.58	0.370
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, Cl 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 17/03/2023



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**Compaction Control Test Report (Nuclear Gauge & Hilf)** Page: 1 of 2

Client:	BMD Constructions Pty Ltd	Report No:	13
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	21/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

Sample Number:	81609	81610	81611	81612	81613
Field Test Number:	1	2	3	4	5
Date - Field Tested:	6/03/2023	6/03/2023	6/03/2023	6/03/2023	6/03/2023
Time - Field Tested:	1000	1005	1010	1015	1020
Material Source / Type:	Onsite - General Fill				
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E:5526.2	E:5517.3	E:5504.3	E:5517.7	E:5525.6
Position/Offset/Northing:	(m) N:13311.6	N:13302.5	N:13296.3	N:13263.3	N:13269.1
Level/Layer/R.L.	RL:52.7	RL:51.5	RL:50.1	RL:50.2	RL:51.3
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	150	150

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.11	2.17	2.16	2.16	2.15
Field Dry Density:	(t/m <sup>3</sup> )	1.94	1.99	1.99	1.99	1.97
Retained Oversize (Wet basis):	(%)	2% on 19.0mm	3% on 19.0mm	2% on 19.0mm	3% on 19.0mm	2% on 19.0mm
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven
Field Moisture Content:	(%)	9.0	9.0	9.0	8.5	9.0
Adjusted Lab OMC:	(%)	10.6	11.1	11.1	10.4	10.8
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.15	2.13	2.15	2.14	2.14
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.16	2.14	2.16	2.15	2.14
Compactive Effort:		Standard	Standard	Standard	Standard	Standard

**Relative Compaction & Moisture**

Moisture Variation	(%)	2.0% Drier than OMC	2.0% Drier than OMC	2.0% Drier than OMC	2.0% Drier than OMC	2.0% Drier than OMC
Moisture Ratio	(%)	83.0	82.5	81.5	81.5	82.0
Density Ratio	(%)	98.0	101.5	100.0	100.5	100.0

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	100.0	10	100.66	1.51	0.405
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, CI 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 20/03/2023



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Accreditation number: 19902

Approved By: A. Lenkeit  
 Approved Signatory



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**Compaction Control Test Report (Nuclear Gauge & Hilf)**

Page: 2 of 2

Client:	BMD Constructions Pty Ltd	Report No:	13
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	21/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

	81614	81615	81616	81617	81618
Sample Number:	6	7	8	9	10
Field Test Number:	6/03/2023	6/03/2023	6/03/2023	6/03/2023	6/03/2023
Date - Field Tested:	1025	1030	1035	1040	1045
Time - Field Tested:	Onsite - General Fill				
Material Source / Type:					
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E:5521.2	E:5518.9	E:5509.6	E:5519.6	E:5530.7
Position/Offset/Northing:	(m) N:13312.9	N:13309.6	N:13297.8	N:13265.9	N:13270.2
Level/Layer/R.L.	RL:52.0	RL:51.0	RL:49.7	RL:50.0	RL:50.9
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	150	150

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.12	2.23	2.24	2.23	2.22
Field Dry Density:	(t/m <sup>3</sup> )	1.94	2.05	2.02	2.04	2.04
Retained Oversize (Wet basis):	(%)	2% on 19.0mm	2% on 19.0mm	3% on 19.0mm	2% on 19.0mm	4% on 19.0mm
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven
Field Moisture Content:	(%)	9.5	9.0	10.5	9.5	9.0
Adjusted Lab OMC:	(%)	11.4	10.8	11.7	11.3	10.5
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.15	2.19	2.17	2.19	2.18
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.15	2.20	2.18	2.19	2.18
Compactive Effort:		Standard	Standard	Standard	Standard	Standard

**Relative Compaction & Moisture**

Moisture Variation	(%)	2.0% Drier than OMC	1.5% Drier than OMC	1.0% Drier than OMC	1.5% Drier than OMC	1.5% Drier than OMC
Moisture Ratio	(%)	82.5	84.0	90.0	85.0	83.0
Density Ratio	(%)	98.5	101.5	102.5	102.0	101.5

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	100.0	10	100.66	1.51	0.405
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, Cl 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 20/03/2023



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**Compaction Control Test Report (Nuclear Gauge & Hilf)** Page: 1 of 2

Client:	BMD Constructions Pty Ltd	Report No:	15
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	23/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	level 1 fill	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

Sample Number:	82128	82129	82130	82131	82132
Field Test Number:	1	2	3	4	5
Date - Field Tested:	15/03/2023	15/03/2023	15/03/2023	15/03/2023	15/03/2023
Time - Field Tested:	0830	0835	0840	0845	0850
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E:5759.1	E:5748.4	E:5766.7	E:5774.3	E:5768.2
Position/Offset/Northing:	(m) N:13381.4	N:13372.9	N:13335.5	N:13336.7	N:13336.9
Level/Layer/R.L.	RL:57.0	RL:57.4	RL:57.1	RL:56.3	RL:56.5
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	150	150

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.17	2.15	2.15	2.12	2.22
Field Dry Density:	(t/m <sup>3</sup> )	1.98	1.97	1.96	1.92	2.01
Retained Oversize (Wet basis):	(%)	3% on 19.0mm	3% on 19.0mm	2% on 19.0mm	1% on 19.0mm	4% on 19.0mm
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven
Field Moisture Content:	(%)	9.5	9.5	9.5	10.5	10.0
Adjusted Lab OMC:	(%)	10.5	11.2	9.7	11.2	10.4
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.21	2.22	2.21	2.18	2.22
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.21	2.22	2.21	2.18	2.22
Compactive Effort:		Standard	Standard	Standard	Standard	Standard

**Relative Compaction & Moisture**

Moisture Variation	(%)	1.0% Drier than OMC	2.0% Drier than OMC	At OMC	1.0% Drier than OMC	0.5% Drier than OMC
Moisture Ratio	(%)	90.5	83.0	99.5	93.0	97.0
Density Ratio	(%)	98.0	97.0	97.0	97.0	100.0

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	97.2	8	97.95	1.66	0.453
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, CI 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 21/03/2023



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Accreditation number: 19902

Approved By:

A. Lenkeit  
 Approved Signatory



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**Compaction Control Test Report (Nuclear Gauge & Hilf)**

Page: 2 of 2

Client:	BMD Constructions Pty Ltd	Report No:	15
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	23/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	level 1 fill	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

	82133	82134	82135	-	-
Sample Number:	6	7	8	-	-
Field Test Number:	15/03/2023	15/03/2023	15/03/2023	-	-
Date - Field Tested:	0855	0900	0905	-	-
Time - Field Tested:	On Site - General Fill				
Material Source / Type:	-				
Remarks / Notes:	-				
Control Line:	-				
Location/Chainage/Easting:	(m) E:5760.9	E:5739.2	E:5767.4	-	-
Position/Offset/Northing:	(m) N:13380.9	N:13379.1	N:13336.2	-	-
Level/Layer/R.L.	RL:56.2	RL:56.8	RL:56.3	-	-
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	-	-

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.27	2.15	2.22	-	-
Field Dry Density:	(t/m <sup>3</sup> )	2.06	1.99	2.06	-	-
Retained Oversize (Wet basis):	(%)	3% on 19.0mm	1% on 19.0mm	2% on 19.0mm	-	-
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	-	-
Field Moisture Content:	(%)	10.0	8.0	7.5	-	-
Adjusted Lab OMC:	(%)	9.7	7.3	10.5	-	-
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	-	-
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.25	2.25	2.25	-	-
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.26	2.25	2.25	-	-
Compactive Effort:		Standard	Standard	Standard	-	-

**Relative Compaction & Moisture**

Moisture Variation	(%)	0.5% Wetter than OMC	0.5% Wetter than OMC	3.0% Drier than OMC	-	-
Moisture Ratio	(%)	105.0	109.0	72.5	-	-
Density Ratio	(%)	100.5	95.5	98.5	-	-

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	97.2	8	97.95	1.66	0.453
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, Cl 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 21/03/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902



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**Compaction Control Test Report (Nuclear Gauge & Hilf)** Page: 1 of 2

Client:	BMD Constructions Pty Ltd	Report No:	16
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	28/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

Sample Number:	82400	82401	82402	82403	82404
Field Test Number:	1	2	3	4	5
Date - Field Tested:	17/03/2023	17/03/2023	17/03/2023	17/03/2023	17/03/2023
Time - Field Tested:	1000	1005	1010	1015	1020
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	-	-	-	-	-
Location/Chainage/Easting:	(m) E:5819.8	E:5851.1	E:5818.0	E:5826.6	E:5809.7
Position/Offset/Northing:	(m) N:13403.6	N:13431.5	N:13441.4	N:13408.8	N:13395.1
Level/Layer/R.L.	RL:51.1	RL:49.8	RL:49.7	RL:50.6	RL:49.9
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	150	150

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.10	2.25	2.17	2.23	2.14
Field Dry Density:	(t/m <sup>3</sup> )	1.89	2.04	1.97	2.03	1.94
Retained Oversize (Wet basis):	(%)	2% on 19.0mm	2% on 19.0mm	1% on 19.0mm	3% on 19.0mm	2% on 19.0mm
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven
Field Moisture Content:	(%)	11.0	10.5	10.0	9.5	10.0
Adjusted Lab OMC:	(%)	11.5	10.4	10.3	9.7	10.7
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.14	2.23	2.21	2.18	2.16
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.14	2.23	2.21	2.18	2.17
Compactive Effort:		Standard	Standard	Standard	Standard	Standard

**Relative Compaction & Moisture**

Moisture Variation	(%)	0.5% Drier than OMC	0.5% Wetter than OMC	At OMC	At OMC	0.5% Drier than OMC
Moisture Ratio	(%)	97.5	103.5	98.0	100.5	94.0
Density Ratio	(%)	98.0	101.0	98.5	102.0	98.5

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	98.8	8	99.61	1.77	0.453
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, CI 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 24/03/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902

Approved By:

A. Lenkeit  
Approved Signatory



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**Compaction Control Test Report (Nuclear Gauge & Hilf)** Page: 2 of 2

Client:	BMD Constructions Pty Ltd	Report No:	16
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	28/03/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Bulk Earthworks Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

	82405	82406	82407	-	-
Sample Number:	6	7	8	-	-
Field Test Number:	17/03/2023	17/03/2023	17/03/2023	-	-
Date - Field Tested:	1025	1030	1035	-	-
Time - Field Tested:	On Site - General Fill				
Material Source / Type:	-				
Remarks / Notes:	-				
Control Line:	-				
Location/Chainage/Easting:	(m) E:5815.4	E:5823.7	E:5829.8	-	-
Position/Offset/Northing:	(m) N:13446.9	N:13419.6	N:13422.2	-	-
Level/Layer/R.L.	RL:49.9	RL:50.4	RL:50.8	-	-
Layer Depth:	(mm) -	-	-	-	-
Depth Tested:	(mm) 150	150	150	-	-

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.11	2.17	2.24	-	-
Field Dry Density:	(t/m <sup>3</sup> )	1.92	1.98	2.07	-	-
Retained Oversize (Wet basis):	(%)	2% on 19.0mm	5% on 19.0mm	1% on 19.0mm	-	-
Material Description:		-	-	-	-	-
Moisture Content Method:		AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	-	-
Field Moisture Content:	(%)	9.5	9.5	8.5	-	-
Adjusted Lab OMC:	(%)	10.6	9.8	9.3	-	-
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	-	-
Lab Max Converted Wet Density:	(t/m <sup>3</sup> )	2.14	2.21	2.20	-	-
Adjusted Lab Max CWD:	(t/m <sup>3</sup> )	2.14	2.21	2.20	-	-
Compactive Effort:		Standard	Standard	Standard	-	-

**Relative Compaction & Moisture**

Moisture Variation	(%)	1.0% Drier than OMC	At OMC	1.0% Drier than OMC	-	-
Moisture Ratio	(%)	92.0	98.0	89.5	-	-
Density Ratio	(%)	98.5	98.0	102.0	-	-

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	98.8	8	99.61	1.77	0.453
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, Cl 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 24/03/2023



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

Accreditation number: 19902



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**Compaction Control Test Report (Nuclear Gauge & Hilf)** Page: 1 of 1

Client:	BMD Constructions Pty Ltd	Report No:	17
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	6/04/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Allotment fill - Rip and Recomact	Test Request:	-
Lot Number:		ITP/PCP:	

**Sample Information & Location**

Sample Number:	82778	82779	82780	82781	-
Field Test Number:	1	2	3	4	-
Date - Field Tested:	24/03/2023	24/03/2023	24/03/2023	24/03/2023	-
Time - Field Tested:	1050	1055	1100	1105	-
Material Source / Type:	On Site - General fill				
Remarks / Notes:					
Control Line:	Allotment 509	Allotment 510	Allotment 511	Allotment 512	
Location/Chainage/Easting: (m)	12m from East Bdy	6m from East Bdy	10m from East Bdy	9m from East Bdy	-
Position/Offset/Northing: (m)	2m from South Bdy	4m from South Bdy	6m from South Bdy	3m from South Bdy	-
Level/Layer/R.L.	F/L	F/L	F/L	F/L	-
Layer Depth: (mm)	-	-	-	-	-
Depth Tested: (mm)	150	150	150	150	-

**Field & Laboratory Results**

Field Wet Density: (t/m <sup>3</sup> )	2.13	2.11	2.11	2.13	-
Field Dry Density: (t/m <sup>3</sup> )	1.89	1.86	1.93	1.87	-
Retained Oversize (Wet basis): (%)	3% on 19.0mm	4% on 19.0mm	13% on 19.0mm	3% on 19.0mm	-
Material Description:	-	-	-	-	-
Moisture Content Method:	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	AS1289.2.1.1 - Oven	-
Field Moisture Content: (%)	13.0	13.5	9.0	14.0	-
Adjusted Lab OMC: (%)	12.2	13.1	11.6	13.6	-
Fraction Tested:	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	-
Lab Max Converted Wet Density: (t/m <sup>3</sup> )	2.15	2.16	2.12	2.17	-
Adjusted Lab Max CWD: (t/m <sup>3</sup> )	2.15	2.17	2.14	2.18	-
Compactive Effort:	Standard	Standard	Standard	Standard	-

**Relative Compaction & Moisture**

Moisture Variation (%)	0.5% Wetter than OMC	0.5% Wetter than OMC	2.0% Drier than OMC	0.5% Wetter than OMC	-
Moisture Ratio (%)	105.0	102.5	79.5	104.5	-
Density Ratio (%)	99.0	97.5	98.5	98.0	-

Specified Density Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	97.8	4	98.18	0.59	0.640
Maximum (%)		-	-	-	-	-
Specified Moisture Ratio		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)		-	-	-	-	-
Maximum (%)		-	-	-	-	-

**Test Methods Used.**

AS1289.1.1 (Prep), AS1289.5.4.1 - (Moisture Ratio), AS1289.5.7.1 - (Hilf Density/Moisture Ratio (Rapid Method)), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS 1289.1.2.1, CI 6.4(b) (Sampling), CV calculations derived from Austroads NTR-09 publication (Not Included in Nata endorsement)

**Remarks Regarding the Lot.**

Laboratory testing 04/04/2023

	Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.	
	Accreditation number: 19902	





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**Compaction Control Test Report (Nuclear Gauge & MDD)**

Client:	BMD Constructions Pty Ltd	Report No:	<b>18-R</b>
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	22/05/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Allotment fill - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	

**Sample Information & Location**

	85522	85523	85524	85525	85526
Sample Number:	1	2	3	4	5
Field Test Number:	27/04/2023	27/04/2023	27/04/2023	27/04/2023	27/04/2023
Date - Field Tested:	1400	1405	1410	1415	1420
Time - Field Tested:	On Site - General Fill				
Material Source / Type:					
Remarks / Notes:					
Control Line:	LOT:515	LOT:705	LOT:537	LOT:708	LOT:706
Location/Chainage/Easting:	7m off North Boundary	7m off North Boundary	11m off North Boundary	5m off North Boundary	8m off North Boundary
Position/Offset/Northing:	10m off West Boundary	18m off West Boundary	19m off West Boundary	11m off West Boundary	11m off West Boundary
Level/Layer/R.L.	F/L	0.3 BFL	F/L	0.4 BFL	0.6 BFL
Layer Depth:	-	-	-	-	-
Depth Tested:	150	150	150	150	150

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.10	2.10	2.19	2.11	2.16
Field Dry Density:	(t/m <sup>3</sup> )	1.95	1.93	2.04	1.96	1.99
Retained Oversize (Wet basis):	(%)	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm
Retained Oversize (Dry basis):	(%)	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm
Moisture Content Method - AS1289:		.2.1.1 - Oven	.2.1.1 - Oven	.2.1.1 - Oven	.2.1.1 - Oven	.2.1.1 - Oven
Field Moisture Content:	(%)	7.5	9.0	7.5	7.5	8.5
Adjusted Lab OMC:	(%)	9.0	10.0	10.0	9.5	10.5
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm
Lab Maximum Dry Density (MDD):	(t/m <sup>3</sup> )	2.02	1.99	2.02	1.99	2.00
Adjusted Lab MDD:	(t/m <sup>3</sup> )	2.02	1.99	2.02	1.99	2.00
Report & Date of Lab Reference Density Test:		-				

**Relative Compaction & Moisture**

Moisture Ratio	(%)	<b>83.5</b>	<b>91.0</b>	<b>77.5</b>	<b>77.5</b>	<b>80.5</b>
Moisture Variation	(%)	1.5 Dry of OMC	1.0 Dry of OMC	2.0 Dry of OMC	2.0 Dry of OMC	2.0 Dry of OMC
Density Ratio	(%)	<b>97.0</b>	<b>96.5</b>	<b>100.5</b>	<b>98.5</b>	<b>100.0</b>

**Characteristic Values of the Lot.** CV calculations derived from Austroads NTR-09 publication

Specified Moisture Ratio	Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	<b>84</b>	13	86.5	6.9	0.355
Maximum (%)	<b>89</b>	13	86.5	6.9	0.355
Specified Density Ratio	Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	<b>98.5</b>	13	99.04	1.44	0.355
Maximum (%)	<b>99.5</b>	13	99.04	1.44	0.355

**Test Methods Used.**

AS 1289.1.2.1, Cl 6.4(b) (Disturbed Sampling), AS1289.1.1 (Prep), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS1289.5.4.1 (Dry Density Ratio, Moisture Variation & Ratio), AS1289.5.1.1 (MDD Standard Effort)

**Remarks Regarding the Lot.**

Laboratory testing 05/05/2023  
 This Report replaces report 18. A typographical error made when inputting locations.

Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.



NATA Accreditation number: 19902

Approved By:

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 Approved Signatory



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**Compaction Control Test Report (Nuclear Gauge & MDD)**

Page: 2 of 3

Client:	BMD Constructions Pty Ltd	Report No:	<b>18-R</b>
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	22/05/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Allotment fill - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	

**Sample Information & Location**

Sample Number:	85527	85528	85529	85530	85531
Field Test Number:	6	7	8	9	10
Date - Field Tested:	27/04/2023	27/04/2023	27/04/2023	27/04/2023	27/04/2023
Time - Field Tested:	1425	1430	1435	1440	1445
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	LOT:704	LOT:702	LOT:538	LOT:539	LOT:540
Location/Chainage/Easting: (m)	6m off North Boundary	6m off North Boundary	15m off North Boundary	20m off North Boundary	7m off North Boundary
Position/Offset/Northing: (m)	10m off West Boundary	12m off West Boundary	5m off West Boundary	8m off West Boundary	9m off West Boundary
Level/Layer/R.L.	0.3 BFL	0.4 BFL	F/L	F/L	F/L
Layer Depth: (mm)	-	-	-	-	-
Depth Tested: (mm)	150	150	150	150	150

**Field & Laboratory Results**

Field Wet Density: (t/m <sup>3</sup> )	2.20	2.11	2.16	2.17	2.15
Field Dry Density: (t/m <sup>3</sup> )	2.01	1.90	2.01	1.97	1.96
Retained Oversize (Wet basis): (%)	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm
Retained Oversize (Dry basis): (%)	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm
Moisture Content Method - AS1289:	.2.1.1 - Oven	.2.1.1 - Oven	.2.1.1 - Oven	.2.1.1 - Oven	.2.1.1 - Oven
Field Moisture Content: (%)	9.5	10.5	8.0	10.0	10.0
Adjusted Lab OMC: (%)	11.5	12.0	9.5	11.5	11.5
Fraction Tested:	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	Passing 19.0mm
Lab Maximum Dry Density (MDD): (t/m <sup>3</sup> )	2.02	1.94	2.01	1.96	1.97
Adjusted Lab MDD: (t/m <sup>3</sup> )	2.02	1.94	2.01	1.96	1.97
Report & Date of Lab Reference Density Test:	-				

**Relative Compaction & Moisture**

Moisture Ratio (%)	<b>82.0</b>	<b>88.5</b>	<b>83.5</b>	<b>87.5</b>	<b>84.0</b>
Moisture Variation (%)	2.0 Dry of OMC	1.5 Dry of OMC	1.5 Dry of OMC	1.5 Dry of OMC	2.0 Dry of OMC
Density Ratio (%)	<b>99.5</b>	<b>98.0</b>	<b>100.0</b>	<b>100.5</b>	<b>99.5</b>

**Characteristic Values of the Lot.**

*CV calculations derived from Austroads NTR-09 publication*

Specified Moisture		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	-	<b>84</b>	13	86.5	6.9	0.355
Maximum (%)	-	<b>89</b>	13	86.5	6.9	0.355
Specified Compaction		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	<b>98.5</b>	13	99.04	1.44	0.355
Maximum (%)	-	<b>99.5</b>	13	99.04	1.44	0.355

**Test Methods Used.**

AS 1289.1.2.1, Cl 6.4(b) (Disturbed Sampling), AS1289.1.1 (Prep), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS1289.5.4.1 (Dry Density Ratio, Moisture Variation & Ratio), AS1289.5.1.1 (MDD Standard Effort)

**Remarks Regarding the Lot.**

Laboratory testing 05/05/2023  
 This Report replaces report 18. A typographical error made when inputting locations.



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

NATA Accreditation number: 19902



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**Compaction Control Test Report (Nuclear Gauge & MDD)**

Page: 3 of 3

Client:	BMD Constructions Pty Ltd	Report No:	<b>18-R</b>
Client Address:	1 Sandpiper Ave, Port of Brisbane QLD 4178	Report Date:	22/05/2023
Project:	Aurora Stages 5, 6 & 7 - Bulk Earthworks Phase	Project No:	1462
Component:	Allotment fill - Level 1	Test Request:	-
Lot Number:	-	ITP/PCP:	-

**Sample Information & Location**

	85532	85533	85534	-	-
Sample Number:	11	12	13	-	-
Field Test Number:	27/04/2023	27/04/2023	27/04/2023	-	-
Date - Field Tested:	1455	1500	1505	-	-
Time - Field Tested:	On Site - General Fill				
Material Source / Type:	On Site - General Fill				
Remarks / Notes:					
Control Line:	LOT:541	LOT:542	LOT:543	-	-
Location/Chainage/Easting:	18m off North Boundary	24m off North Boundary	15m off North Boundary	-	-
Position/Offset/Northing:	9m off West Boundary	8m off West Boundary	8m off West Boundary	-	-
Level/Layer/R.L.	F/L	F/L	F/L	-	-
Layer Depth:	-	-	-	-	-
Depth Tested:	150	150	150	-	-

**Field & Laboratory Results**

Field Wet Density:	(t/m <sup>3</sup> )	2.19	2.11	2.19	-	-
Field Dry Density:	(t/m <sup>3</sup> )	1.98	1.90	1.99	-	-
Retained Oversize (Wet basis):	(%)	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	-	-
Retained Oversize (Dry basis):	(%)	0% on 19.0mm	0% on 19.0mm	0% on 19.0mm	-	-
Moisture Content Method - AS1289:		.2.1.1 - Oven	.2.1.1 - Oven	.2.1.1 - Oven	-	-
Field Moisture Content:	(%)	10.5	11.0	10.5	-	-
Adjusted Lab OMC:	(%)	11.0	11.5	10.5	-	-
Fraction Tested:		Passing 19.0mm	Passing 19.0mm	Passing 19.0mm	-	-
Lab Maximum Dry Density (MDD):	(t/m <sup>3</sup> )	1.96	1.95	2.01	-	-
Adjusted Lab MDD:	(t/m <sup>3</sup> )	1.96	1.95	2.01	-	-
Report & Date of Lab Reference Density Test:		-				

**Relative Compaction & Moisture**

Moisture Ratio	(%)	<b>96.5</b>	<b>95.0</b>	<b>98.0</b>	-	-
Moisture Variation	(%)	0.5 Dry of OMC	0.5 Dry of OMC	0.0 Dry of OMC	-	-
Density Ratio	(%)	<b>101.0</b>	<b>97.5</b>	<b>99.0</b>	-	-

**Characteristic Values of the Lot.**

*CV calculations derived from Austroads NTR-09 publication*

Specified Moisture		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	-	<b>84</b>	13	86.5	6.9	0.355
Maximum (%)	-	<b>89</b>	13	86.5	6.9	0.355
Specified Compaction		Characteristic Value	Number of Tests	Mean	Standard Deviation	Constant k
Minimum (%)	95	<b>98.5</b>	13	99.04	1.44	0.355
Maximum (%)	-	<b>99.5</b>	13	99.04	1.44	0.355

**Test Methods Used.**

AS 1289.1.2.1, Cl 6.4(b) (Disturbed Sampling), AS1289.1.1 (Prep), AS1289.5.8.1 (Nuclear Gauge, Direct Transmission), AS1289.5.4.1 (Dry Density Ratio, Moisture Variation & Ratio), AS1289.5.1.1 (MDD Standard Effort)

**Remarks Regarding the Lot.**

Laboratory testing 05/05/2023  
 This Report replaces report 18. A typographical error made when inputting locations.



Accredited for compliance with ISO/IEC 17025 - Testing. The results relate only to the items sampled/tested.

NATA Accreditation number: 19902

# **Appendix C**

## **Individual Lot Certificates**

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 501

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 501 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **501** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

Please do not hesitate to contact me if you have any queries.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'Jason Mckenna', with a stylized flourish at the end.

Jason Mckenna  
Laboratory Manager

ASCT Brisbane South  
[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 502

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 502 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **502** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

ASCT Brisbane South  
[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 503

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 503 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **503** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 504

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 504 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **504** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 505

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 505 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **505** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 506

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 506 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **506** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 507

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 507 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **507** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 508

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 508 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **508** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 509

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 509 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **509** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 510

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 510 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **510** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 511

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 511 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **511** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 512

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 512 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **512** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 513

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 513 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

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Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 514

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 514 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **514** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 515

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 515 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **515** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 516

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 516 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **516** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 517

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 517 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **517** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 518

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 518 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **518** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

Please do not hesitate to contact me if you have any queries.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'Jason Mckenna', with a stylized flourish at the end.

Jason Mckenna  
Laboratory Manager

ASCT Brisbane South  
[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 519

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 519 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **519** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Jason Mckenna  
Laboratory Manager

ASCT Brisbane South  
[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 520

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 520 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **520** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

ASCT Brisbane South  
[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)



22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 521

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 521 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **521** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 522

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 522 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **522** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 523

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 523 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **523** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 524

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 524 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **524** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 525

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 525 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **525** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 526

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 526 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **526** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 527

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 527 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **527** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 528

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 528 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **528** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 529

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 529 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **529** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 530

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 530 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **530** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 536

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 536 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **536** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 537

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 537 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **537** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 538

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 538 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **538** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 539

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 539 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **539** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 540

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 540 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **540** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 541

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 541 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **541** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 542

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 542 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **542** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 543

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 543 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **543** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

Please do not hesitate to contact me if you have any queries.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'Jason Mckenna', with a stylized flourish at the end.

Jason Mckenna  
Laboratory Manager

ASCT Brisbane South  
[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 546

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 546 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **546** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Jason Mckenna  
Laboratory Manager

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[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 547

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 547 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **547** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 548

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 548 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **548** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 549

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 549 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **549** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 550

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 550 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **550** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 607

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 607 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **607** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)



22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 608

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 608 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **608** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 609

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 609 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **609** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 610

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 610 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **610** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 611

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 611 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **611** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 612

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 612 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **612** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 613

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 613 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **613** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 614

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 614 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **614** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 615

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 615 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **615** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 616

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 616 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **616** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 617

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 617 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **617** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 618

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 618 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **618** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 619

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 619 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **619** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 620

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 620 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **620** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 621

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 621 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **621** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

Please do not hesitate to contact me if you have any queries.

Yours faithfully



Jason Mckenna  
Laboratory Manager

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[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 622

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 622 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **622** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

Please do not hesitate to contact me if you have any queries.

Yours faithfully

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Jason Mckenna  
Laboratory Manager

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[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 623

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 623 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **623** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 624

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 624 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **624** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 625

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 625 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **625** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 626

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 626 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **626** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 627

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 627 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **627** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 628

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 628 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **628** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

Please do not hesitate to contact me if you have any queries.

Yours faithfully



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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 629

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 629 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **629** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 630

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 630 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **630** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 631

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 631 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **631** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Yours faithfully

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 632

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 632 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **632** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 633

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 633 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **633** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 634

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 634 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **634** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 635

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 635 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **635** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 639

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 639 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **639** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 640

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 640 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **640** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 641

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 641 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **641** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 642

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 642 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **642** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 643

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 643 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

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Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **643** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 644

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 644 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **644** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

Please do not hesitate to contact me if you have any queries.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'Jason Mckenna', with a stylized flourish at the end.

Jason Mckenna  
Laboratory Manager

ASCT Brisbane South  
[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 646

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 646 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **646** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

Please do not hesitate to contact me if you have any queries.

Yours faithfully

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Jason Mckenna  
Laboratory Manager

ASCT Brisbane South  
[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 647

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 647 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **647** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

Please do not hesitate to contact me if you have any queries.

Yours faithfully

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Jason Mckenna  
Laboratory Manager

ASCT Brisbane South  
[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 648

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 648 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **648** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 658

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 658 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **658** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 659

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 659 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **659** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

ASCT Brisbane South  
[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 660

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 660 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **660** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

ASCT Brisbane South  
[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)



22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 661

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 661 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **661** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 662

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 662 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **662** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 663

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 663 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **663** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 701

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 701 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **701** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

Please do not hesitate to contact me if you have any queries.

Yours faithfully

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Laboratory Manager

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[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 702

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 702 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **702** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

Please do not hesitate to contact me if you have any queries.

Yours faithfully

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Jason Mckenna  
Laboratory Manager

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 703

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 703 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **703** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 704

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 704 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **704** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 705

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 705 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **705** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 706

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 706 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **706** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 707

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 707 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **707** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 708

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 708 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **708** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 709

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 709 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **709** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 710

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 710 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **710** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 711

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 711 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **711** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

Please do not hesitate to contact me if you have any queries.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'Jason Mckenna', with a stylized flourish at the end.

Jason Mckenna  
Laboratory Manager

ASCT Brisbane South  
[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 712

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 712 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **712** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Yours faithfully

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Laboratory Manager

ASCT Brisbane South  
[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 713

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 713 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **713** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 714

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 714 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **714** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 715

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 715 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **715** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 716

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 716 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **716** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 724

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 724 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **724** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 725

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 725 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **725** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 726

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 726 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **726** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 727

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 727 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **727** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 728

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 728 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **728** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 729

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 729 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **729** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 730

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 730 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **730** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

Please do not hesitate to contact me if you have any queries.

Yours faithfully



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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 743

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 743 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **743** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 744

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 744 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **744** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 745

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 745 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **745** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 746

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 746 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **746** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 747

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 747 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **747** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 748

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 748 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **748** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 749

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 749 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **749** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 765

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 765 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **765** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

Please do not hesitate to contact me if you have any queries.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'Jason Mckenna', with a stylized flourish at the end.

Jason Mckenna  
Laboratory Manager

ASCT Brisbane South  
[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023  
Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 766

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 766 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **766** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 772

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 772 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **772** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 773

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 773 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **773** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 774

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## **CERTIFICATE OF CONTROLLED FILLING**

### **LOT 774 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley**

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **774** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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Laboratory Manager

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[jason.mckenna@asct.com.au](mailto:jason.mckenna@asct.com.au)

22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 775

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 775 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **775** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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22<sup>nd</sup> May 2023

Ref No: 1462\_Level 1\_Aurora Stage 5, 6 & 7\_Lot 776

BMD Urban Pty Ltd  
Level 1, 25 Cambridge Parade  
Manly QLD 4179

## CERTIFICATE OF CONTROLLED FILLING

### LOT 776 – Aurora Stage 5, 6 & 7 - Daleys Road Ripley

Australian Soil and Concrete Testing was commissioned by BMD Urban Pty Ltd to provide earthworks inspection and testing services on a 'Level 1' basis in accordance with the requirements of AS 3798-2007 '*Guidelines on earthworks for commercial and residential developments*'.

Fill was placed on the allotment between 09/02/23 and 27/04/23.

Based on the observations made by Australian Soil and Concrete Testing and the test results obtained during construction the structural fill placed on allotment **776** is considered to have been carried out in general accordance with AS3798-2007 and is considered to be Controlled Fill as defined in AS2870 – 2011 '*Residential Slabs & Footings*'.

Full details of the inspection and testing conducted is included in our report Ref No: **1462\_Level 1\_Aurora Stage 5, 6 & 7** Dated 22<sup>nd</sup> May 2023.

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