

Job No: 8599/71 Our Ref: 8599/71-AB 23 January 2023

Daracon Contractors Pty Ltd 184 Adderley Street West AUBURN NSW 2144 Email: <u>Sabina.Moktan@daracon.com.au</u>

#### Attention: Ms S Moktan

Dear Madam

# Re: Residential Development Newpark Precinct 7 Stage 7B-Woorong Park- Marsden Park Precinct 7, part of the BEW (DA-15-02273 / CC-16-04410) and Practical Completion Compliance Certificate Precinct 7 - Stage 7B (SPP-17-00046 / SWC-21-00079) Site Fill Testing- Bulk Earthworks

Geotech Testing Pty Ltd has provided site supervision and compaction control testing during placement of fill at the above project.

# Land Filling and Compaction

Site supervision and compaction control tests were undertaken within the terms of our NATA accreditation at the dates and to the procedures shown on the test results sheets, copies of which were submitted monthly during the duration of the project. Fifty-one FDT tests were carried out. Based on the fill quantities/survey data provided by the client, the frequency of field density and compaction tests is in accordance with Level 1 as defined in AS3798 "Guidelines on Earthworks for Commercial & Residential Development". Based on the foregoing, it is considered that the fill placed at the above project is classified as "CONTROLLED FILL" and that the specified compaction level has been achieved within the lots and road reserves.

#### **Salinity Certification**

Based on the Bulk Earthworks Plan, the site was filled, with some areas of cut. All site works were carried out in accordance with the Soil Management Plan included in Geotechnique Pty Ltd Land Capability Study (Report 12576/1-AA dated 27 February 2012). The salinity of the imported fill was confirmed as non to slightly saline soils, thus reducing the overall effect of any saline soils on ground concrete structures such as footings. Based on the foregoing, it is our opinion that the works completed at Precinct 7B comply with the salinity report.

#### Validation of Imported Fill

Imported fill, if any, have been assessed as VENM, as per Geotech Testing Report 8599/61-AC dated 25 March 2022. Based on the foregoing, it is our opinion that the site is validated in accordance with the Environment Protection Authority guidelines *(Contaminated Land Sites)*. No contaminants were encountered during bulk earthworks, other than that noted in the RAP report.

Newpark Precinct 7 Stage 7B is suitable for the intended land use consistent with NEPM 2013 Residential A - Residential with Garden / Accessible soil.

GEOTECH TESTING PTY LTD

8599/71-AB Newpark Precinct 7 Stage 7B - Marsden Park

If you have any questions, please do not hesitate to contact the undersigned.

Yours faithfully GEOTECH TESTING PTY LTD

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EMGED RIZKALLA Director

Attached

Density Test Results 8599/71 Nos 1 to 51 Drawing No 8599/71-1 & 2 & 3 2



#### DARACON CONTRACTORS PTY LTD 184 ADDERLEY STREET WEST AUBURN NSW 2144

Laboratory:	Penrith
Job No:	8599/71
Date:	24/11/2021

PROJECT: SITE FILL TESTING

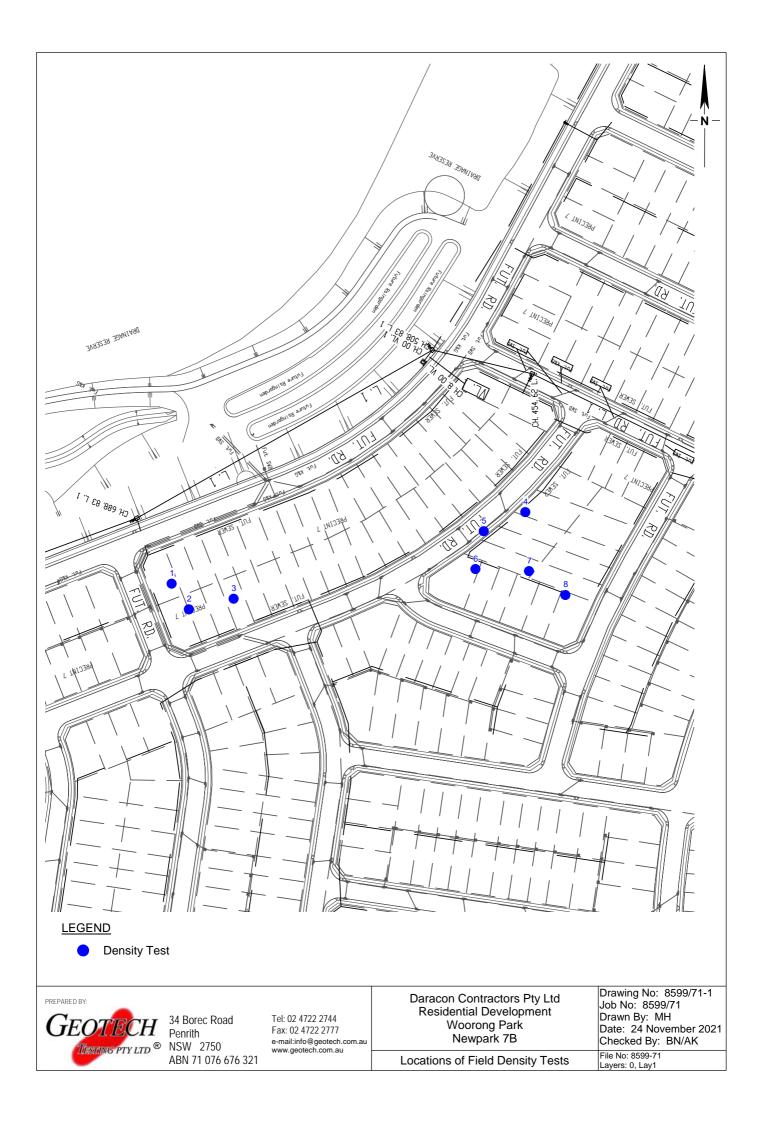
RESIDENTIAL DEVELOPMENT WOORONG PARK MARSDEN PARK PRECINCT, NEWPARK PRECINCT 7 STAGE 7B Page 1 of 1

									Page 1 of 1
TEST NUMBER	[	1	2	3	4	5	6	7	8
DATE TESTED & SAMPLED	[		18/11	8/11/2021 19/11/2021					
<u>RESULTS</u>									
Hilf Density Ratio Standard	%	100.5	100.5	100.5	101	101	101	99	99.5
Moisture Variation from OMC (-Drier/+Wetter)	%	0.0	0.0	0.5	0.5	0.0	0.0	0.5	0.5
Specification Density Ratio (Standa	rd)	≥95%	Specific	ation Mo	isture Va	riance fr	om OMC		±2%
TEST LOCATION									
Chainage (Carriageway L/R)	m	-	-	-	-	-	-	-	-
Shown on Drawing No					8599	/71-1		1	
Retested by Test		-	-	-	-	-	-	-	-
Reduced Level	m	18.23	18.57	18.61	18.90	18.69	19.10	19.69	19.39
FIELD & LABORATORY DATA									
Field Wet Density	t/m³	2.17	2.16	2.18	2.17	2.17	2.17	2.15	2.16
Field Moisture Content	%	15.0	16.0	16.5	18.0	16.5	17.0	18.0	16.0
Material retained on 19mm Sieve (wet)	%	<5	<5	<5	<5	<5	<5	<5	<5
Lab Compaction result from test number	ľ	1	2	3	4	5	6	7	8
Lab Compaction Date Tested	ľ	23/11/2021	23/11/2021	23/11/2021	23/11/2021	23/11/2021	23/11/2021	23/11/2021	23/11/202
Peak Converted Wet Density	t/m³	2.16	2.15	2.17	2.15	2.15	2.15	2.17	2.17
Apparent Optimum Moisture Content	%	14.5	15.5	16.5	17.5	16.5	16.5	17.5	16.0
Number of Compaction Points	ľ	3	3	3	3	3	3	3	3
Test Procedures - See Note Number	ľ	12	12	12	12	12	12	12	12
Material Description - see below	ľ	2	2	2	2	2	2	2	2
<ol> <li>Assigned Values have been obtained from our Penrith laboratory-</li> <li>Assigned Values have been obtained from our Prestons laboratory</li> <li>Results have been calculated using infinite decimal places. Theref</li> <li>AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.1.1, 5.3.1, 5.4.1</li> <li>AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.2.1, 5.3.1, 5.4.1</li> <li>AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.2.1, 5.4.1, 5.4.1</li> <li>AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.2.1, 5.4.1, 5.8.1</li> <li>AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.2.1, 5.4.1, 5.8.1</li> <li>S 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.5.1, 5.6.1, 5.8.1</li> <li>S 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.5.1, 5.6.1, 5.8.1</li> <li>S 1289 1.2.1 clause 6.4 (b), 2.1.3, 5.4.1, 5.8.1</li> <li>S 1289 1.2.1 clause 6.4 (b), 2.1.3, 5.4.1, 5.8.1</li> </ol>	- Accredi	tation No 14234		se shown	11: AS 1289 1. 12. AS 1289 1. 13: RMS T111	2.1 clause 6.4 ( 2.1 clause 6.4 ( , T119, T120, T <sup>-</sup> , T120, T166, T <sup>-</sup> , T119, T162 , T162, T173		5.7.1	
Material Description									
1. CL-Clavs of low plasticity, gravelly clavs, sandy clavs, silty clavs 2. CI-Clav of medium plasticity, gravelly clavs, sandy clavs, silty clavs 3. CH-Clavs of high plasticity 4. SC-Clavey sands, sand-clay mixtures 5. SM-Silty sands, sand-silt mixtures 6. GC-Clavey gravels, gravel-sand-clay mixtures 7. SP-Sand, crushed dust, filling sand, washed sand 8. DGB20 9. DGB40 10. DGS20				11. DGS40 12. FCR20 13. FCR40 14. RC - Recyc 15. Recycled R 16. RSB - Recy 17. CSS - Crus 18. RSS - Ripp 19. Cowels Bro	oadbase vcled Sub-base hed Sandstone ed Sandstone		<ul> <li>* Cement Stati</li> <li># Lime Stabilis</li> <li>\$ Gypsum Stati</li> </ul>	ed	
Form No R 020 Version 10 10/20 - issued by ER		d for comp				AK	ench		1/2021
NATA	150/IE	C 17025 - <sup>-</sup>	i esting.				Approved	Signatory	
Accreditation Number 2734							KEY		
Corporate Site Number 2727									
34 Borec Road, Penrith NSW 2750				Unit 4, 18-2	20 Whyalla I	Place, Pres	tons NSW 2	170	

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DARACON CO	NTRACTORS PTY LTD	Laboratory:	Penrith
184 ADDERLE	Y STREET WEST	Job No:	8599/71
AUBURN NSW	2144	Date:	25/12/2021
PROJECT:	SITE FILL TESTING		

RESIDENTIAL DEVELOPMENT WOORONG PARK MARSDEN PARK PRECINCT, NEWPARK PRECINCT 7 STAGE 7B

Page 1 of 4

TEST NUMBER		I	9	10	11	12	13	14	15	16
DATE TESTED & SA	AMPLED		26/11/2021	10		/2021	15	14	29/11/2021	10
				1						
<b>RESULTS</b>										
Hilf Density Ratio	Standard	%	101	101.5	101	101	102	101	101.5	101.5
Moisture Variation fro	om OMC (-Drier/+Wetter)	%	0.5	0.5	0.0	0.0	0.5	0.5	0.5	0.5
Specification	Density Ratio (Standar	d)	≥95%	Specific	ation Mo	isture Va	riance fr	om OMC		<b>±2%</b>
TEST LOCATION							-	-	-	
Chainage	(Carriageway L/R)	m	-	-	-	-	-	-	-	-
Shown on Drawing No				1	1	8599	/71-2			
Retested by Test		m	-	-	-	-	-	-	-	-
Reduced Level		m	19.71	19.68	20.22	20.19	19.73	19.89	19.80	19.77
FIELD & LABORA	TORY DATA									
Field Wet Density		t/m³	2.15	2.14	2.14	2.15	2.17	2.13	2.14	2.13
Field Moisture Content		%	17.0	16.0	16.5	16.5	17.0	15.5	16.5	16.0
Material retained on	19mm Sieve (wet)	%	<5	<5	<5	<5	<5	<5	<5	<5
Lab Compaction result fro			9	10	11	12	13	14	15	16
Lab Compaction Date Te			03/12/2021	03/12/2021	03/12/2021	03/12/2021	03/12/2021	03/12/2021	03/12/2021	03/12/202
Peak Converted Wet Den		t/m³	2.13	2.11	2.12	2.13	2.13	2.11	2.11	2.10
Apparent Optimum Moist		%	16.5	15.5	16.5	16.5	16.5	15.0	16.0	15.5
Number of Compaction P			3	3	3	3	3	3	3	3
Test Procedures - See No			12	12	12	12	12	12	12	12
Material Description - see Notes	below		2	2	2	2	2	2	2	2
2: Assigned Values have been 3. Results have been calculate 4: AS 1289 1.2.1 clause 6.4 (b) 5: AS 1289 1.2.1 clause 6.4 (b) 6: AS 1289 1.2.1 clause 6.4 (b) 8: AS 1289 1.2.1 clause 6.4 (b) 9: Full details of Test Procedure Material Description	, 2.1.1, 5.2.1, 5.3.1, 5.4.1 , 2.1.1, 5.2.1, 5.4.1, 5.8.1 , 2.1.1., 5.5.1, 5.6.1, 5.8.1 e 5.8.1 available on request	- Accred	itation No 14234			11: AS 1289 1.	2.1 clause 6.4 (I 2.1 clause 6.4 (I , T119, T120, T1 , T120, T166, T1 , T119, T162 , T162, T173	73	5.7.1 5.8.1	
	tures and-clay mixtures				11. DGS40 12. FCR20 13. FCR40 14. RC - Recycled R 16. RSB - Recy 17. CSS - Crus 18. RSS - Ripp 19. Coal Wash	oadbase vcled Sub-base hed Sandstone		<ul> <li>Cement Stat # Lime Stabilis</li> <li>Gypsum Stal</li> </ul>	ed	
Form No R 020 Version 10 10/2	2734		ed for compl C 17025 - ⊺				A Ke	ench <u>Approved</u>	25/12 <u>Signatory</u>	2/2021

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DARACON CO	NTRACTORS PTY LTD	Laboratory:	Penrith
184 ADDERLE	Y STREET WEST	Job No:	8599/71
AUBURN NSW	2144	Date:	25/12/2021
PROJECT:	SITE FILL TESTING		

RESIDENTIAL DEVELOPMENT WOORONG PARK MARSDEN PARK PRECINCT, NEWPARK PRECINCT 7 STAGE 7B

Page 2 of 4

TEST NUMBER			17	18	19	20	21	22	23	24
DATE TESTED & S	AMPLED	ļ	29/11/2021		30/11/2021			01/12/2021		02/12/20
RESULTS										
Hilf Density Ratio	Standard	%	102	101.5	101.5	101.5	101.5	101.5	101.5	101
Moisture Variation f	rom OMC (-Drier/+Wetter)	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Specification	Density Ratio (Standar	d)	≥95%	Specific	ation Mo	isture Va	riance fr	om OMC		±29
		[					-			
Chainage	(Carriageway L/R)	m	-	-	-	- 8599	-	-	-	-
Shown on Drawing No Retested by Test						0099	// 1-2			
Reduced Level		m	- 18.99	- 19.61	- 19.29	- 18.94	- 18.83	- 18.82	- 18.39	- 18.52
			10.99	19.01	19.29	10.54	10.05	10.02	10.55	10.52
FIELD & LABOR	ATORY DATA	t/m³	0.15	0.15	0.14	0.14	0.10	0.14	0.14	0.15
Field Moisture Content		wiii %	2.15 17.0	2.15 17.0	2.14 16.5	2.14 17.0	2.13	2.14 16.0	2.14 16.0	2.15 17.0
Aterial retained on	19mm Sieve (wet)	%	<5	<5	<5	<5	16.5 <5	<5	<5	<5
ab Compaction result fr	. ,	/0	17	18	19	20	21	22	23	24
ab Compaction Date Te					03/12/2021		03/12/2021			03/12/20
Peak Converted Wet De		t/m³	2.11	2.12	2.11	2.11	2.10	2.11	2.11	2.13
pparent Optimum Mois		%	16.5	16.5	16.0	17.0	16.0	16.0	15.5	17.0
lumber of Compaction I			3	3	3	3	3	3	3	3
est Procedures - See N	lote Number		12	12	12	12	12	12	12	12
Naterial Description - se	e below		2	2	2	2	2	2	2	2
2: Assigned Values have beel           3: Results have been calculat           4: AS 1289 1.2.1 clause 6.4 (11)           5: AS 1289 1.2.1 clause 6.4 (11)           6: AS 1289 1.2.1 clause 6.4 (11)           7: AS 1289 1.2.1 clause 6.4 (11)           8: AS 1289 1.2.1 clause 6.4 (11)           9: AS 1289 1.2.1 clause 6.4 (11)           9: Full details of Test Procedu           Material Descriptic	o), 2.1.1, 5.2.1, 5.3.1, 5.4.1 o), 2.1.1, 5.2.1, 5.4.1, 5.8.1 o), 2.1.1, 5.5.1, 5.6.1, 5.8.1 re 5.8.1 available on request	Accredi	tation No 14234		e shown	10: AS 1289 1. 11: AS 1289 1. 12: AS 1289 1. 13: RMS T111. 14: RMS T111. 15: RMS T120. 16. RMS T120. 17. RMS T120.	2.1 clause 6.4 (I 2.1 clause 6.4 (I , T119, T120, T1 , T120, T166, T1 , T119, T162 , T162, T173	b), 2.1.1, 5.3.1, 5 b), 2.1.1, 5.7.1, 5 66	5.7.1 5.8.1	
. CL-Clays of low plasticity, g	ravelly clays, sandy clays, silty clays				11. DGS40					
CI-Clay of medium plasticity     CH-Clays of high plasticity     SC-Clayey sands, sand-salt     SM-Silty sands, sand-silt mi     GC-Clayey gravels, gravel-s     SP-Sand, crushed dust, fillir     DGB20     DGB40     DGS20	ravelly clays, sandy clays, silty clays , gravelly clays, sandy clays, silty clays y mixtures xtures and-clay mixtures ig sand, washed sand				11. DGS40 12. FCR20 13. FCR40 14. RC - Recycled R 16. RSB - Recy 17. CSS - Crusl 18. RSS - Ripp 19. Coal Wash	oadbase cled Sub-base hed Sandstone		# Lime Stabilis \$ Gypsum Stal		
CI-Clay of medium plasticity CH-Clays of high plasticity SC-Clayey sands, sand-clay SM-Silty sands, sand-silt mi GC-Clayey gravels, gravel-s SP-Sand, crushed dust, fillir DGB20 DGB20 DGS20	ravelly clays, sandy clays, silty clays , gravelly clays, sandy clays, silty clays y mixtures ktures and-clay mixtures Ig sand, washed sand 20 - issued by ER	credite	d for comp	iance with	12. FCR20 13. FCR40 14. RC - Recycl 15. Recycled R 16. RSB - Recy 17. CSS - Crust 18. RSS - Rippe	oadbase cled Sub-base hed Sandstone	A Kı			/2021
CI-Clay of medium plasticity CH-Clays of high plasticity SC-Clayey sands, sand-clay SM-Silty sands, sand-silt mi GC-Clayey gravels, gravel-s SP-Sand, crushed dust, fillir DGB20 DGB20 DGS20	ravelly clays, sandy clays, silty clays , gravelly clays, sandy clays, silty clays y mixtures ktures and-clay mixtures ig sand, washed sand 20 - issued by ER Ac		d for compl C 17025 - <sup>-</sup>		12. FCR20 13. FCR40 14. RC - Recycl 15. Recycled R 16. RSB - Recy 17. CSS - Crust 18. RSS - Rippe	oadbase cled Sub-base hed Sandstone	A Ke	\$ Gypsum Stal	bilised	/2021
CI-Clay of medium plasticity     CH-Clays of high plasticity     SC-Clayey sands, sand-clay     SM-Silty sands, sand-silt mi     GC-Clayey gravels, gravel-s     SP-Sand, crushed dust, fillir     DCB20     DGB40	ravelly clays, sandy clays, silty clays , gravelly clays, sandy clays, silty clays y mixtures ktures and-clay mixtures ig sand, washed sand 20 - issued by ER Ac				12. FCR20 13. FCR40 14. RC - Recycl 15. Recycled R 16. RSB - Recy 17. CSS - Crust 18. RSS - Rippe	oadbase cled Sub-base hed Sandstone	A Kı	\$ Gypsum Stal	bilised 25/12	/2021
CI-Clay of medium plasticity CH-Clays of high plasticity SC-Clayey sands, sand-clay SM-Silty sands, sand-silt mi GC-Clayey gravels, gravel-s SP-Sand, crushed dust, fillir DGB20 DGB20 DGS20	ravelly clays, sandy clays, silty clays , gravelly clays, sandy clays, silty clays y mixtures ktures and-clay mixtures lig sand, washed sand 20 - issued by ER Ac				12. FCR20 13. FCR40 14. RC - Recycl 15. Recycled R 16. RSB - Recy 17. CSS - Crust 18. RSS - Rippe	oadbase cled Sub-base hed Sandstone	A Ke	\$ Gypsum Stal	bilised 25/12	/2021

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184 ADDERLE	Y STREET WEST	Job No:	8599/71
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PROJECT:	SITE FILL TESTING		

RESIDENTIAL DEVELOPMENT WOORONG PARK MARSDEN PARK PRECINCT, NEWPARK PRECINCT 7 STAGE 7B

Page 3 of 4

TEST NUMBER			25	26	27	28	29	30	31	32
DATE TESTED & SAMPLED			-	2/2021	09/12/2021		13/12/2021			
RESULTS										
Hilf Density Ratio	Standard	%	101	101.5	99	98.5	100	100.5	99.5	99.5
Moisture Variation fr	om OMC (-Drier/+Wetter)	%	0.5	0.0	0.5	0.5	0.0	0.0	0.0	0.0
Specification	Density Ratio (Standar	d)	≥95%	Specific	ation Mo	isture Va	riance fr	om OMC		±29
TEST LOCATION				1	-					
Chainage	(Carriageway L/R)	m	-	-	-	-	-	-	-	-
Shown on Drawing No				1		8599	/71-2			
Retested by Test			-	-	-	-	-	-	-	-
Reduced Level		m	18.84	18.46	18.63	18.50	19.19	18.98	19.09	19.57
FIELD & LABORA	ATORY DATA									
Field Wet Density		t/m³	2.13	2.14	2.13	2.13	2.14	2.14	2.15	2.13
Field Moisture Content		%	16.0	19.0	16.0	16.5	17.0	17.0	18.0	16.5
Vaterial retained on	19mm Sieve (wet)	%	<5	<5	<5	<5	<5	<5	<5	<5
_ab Compaction result fro	om test number		25	26	27	28	29	30	31	32
_ab Compaction Date Te	sted		03/12/2021	03/12/2021	14/12/2021	14/12/2021	15/12/2021	15/12/2021	15/12/2021	15/12/20
Peak Converted Wet Der	•	t/m³	2.11	2.11	2.15	2.16	2.14	2.13	2.16	2.14
Apparent Optimum Moist		%	15.5	18.5	16.0	16.0	17.0	17.0	17.5	16.5
Number of Compaction P			3	3	3	3	3	3	3	3
Fest Procedures - See N			12	12	12	12	12	12	12	12
Material Description - see	e below		2	2	2	2	2	2	2	2
2: Assigned Values have been	), 2.1.1, 5.2.1, 5.3.1, 5.4.1 ), 2.1.1, 5.2.1, 5.4.1, 5.8.1 ), 2.1.1., 5.5.1, 5.6.1, 5.8.1	- Accred	itation No 14234		e shown	10: AS 1289 1. 11: AS 1289 1. 12: AS 1289 1. 13: RMS T111, 14: RMS T111, 15: RMS T120, 16. RMS T120, 17. RMS T120,	2.1 clause 6.4 (I 2.1 clause 6.4 (I T119, T120, T1 T120, T166, T1 T119, T162 T162, T173	o), 2.1.1, 5.3.1, 5 o), 2.1.1, 5.7.1, 5 66	5.7.1	
	avelly clays, sandy clays, silty clays gravelly clays, sandy clays, silty clays mixtures tures and-clay mixtures				11. DGS40 12. FCR20 13. FCR40 14. RC - Recycled R 16. RSB - Recy 17. CSS - Crusi 18. RSS - Ripp 19. Coal Wash	oadbase cled Sub-base hed Sandstone		<ul> <li>Cement Stab</li> <li># Lime Stabilis</li> <li>\$ Gypsum Stat</li> </ul>	ed	
Form No R 020 Version 10 10/2	r 2734		ed for compl C 17025 - <sup>-</sup>				A Ke	ench <u>Approved</u>	25/12 <u>Signatory</u>	2/2021

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DARACON CONTRACTORS PTY LTD	Laboratory:	Penrith
184 ADDERLEY STREET WEST	Job No:	8599/71
AUBURN NSW 2144	Date:	25/12/2021

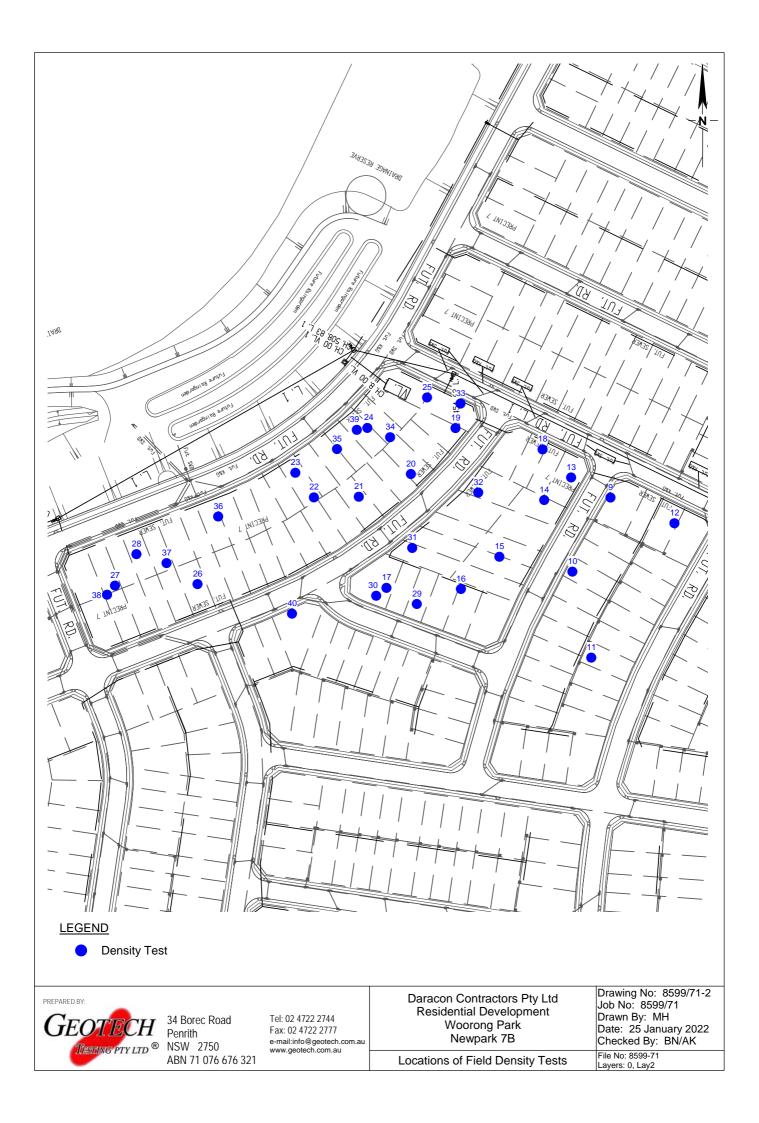
PROJECT:

SITE FILL TESTING RESIDENTIAL DEVELOPMENT WOORONG PARK MARSDEN PARK PRECINCT, NEWPARK PRECINCT 7 STAGE 7B

Page 4 of 4 TEST NUMBER 40 33 34 35 36 37 38 39 DATE TESTED & SAMPLED 14/12/2021 15/12/2021 **RESULTS** Standard Hilf Density Ratio 101 101.5 100 100 100 99.5 % 99.5 99 Moisture Variation from OMC (-Drier/+Wetter) % 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Specification **Density Ratio (Standard) Specification Moisture Variance from OMC** >95% ±2% TEST LOCATION Chainage (Carriageway L/R) m -Shown on Drawing No 8599/71-2 Retested by Test Reduced Level m 19.09 19.46 18 64 18.57 19 11 18 83 18.63 18.54 FIELD & LABORATORY DATA Field Wet Densitv t/m<sup>3</sup> 2.15 2.13 2.15 2.13 2.14 2.16 2.16 2.14 Field Moisture Content 17.0 % 14.5 17.0 16.5 17.0 16.0 17.5 16.0 Material retained on 19mm Sieve (wet) 0/ <5 <5 <5 <5 <5 <5 <5 <5 Lab Compaction result from test number 33 34 35 36 37 38 39 40 Lab Compaction Date Tested 15/12/2021 15/12/202 15/12/2021 15/12/2021 15/12/2021 15/12/202 15/12/202 15/12/2021 Peak Converted Wet Density t/m 2.13 2.10 2.15 2.13 2.14 2.17 2.17 2.16 Apparent Optimum Moisture Content % 14.5 17.0 16.0 16.5 17.0 16.5 15.5 17.5 Number of Compaction Points 3 3 3 3 3 3 3 3 Test Procedures - See Note Number 12 12 12 12 12 12 12 12 Material Description - see below 2 2 2 2 2 2 2 2 Notes 1: Assigned Values have been obtained from our Penrith laboratory - Accreditation No 2734 10: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.5.1, 5.6.1 2: Assigned Values have been obtained from our Prestons laboratory - Accreditation No 14234 11: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.7.1 3. Results have been calculated using infinite decimal places. Therefore, calculated values may vary from those shown 12. AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.7.1, 5.8.1 4: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.1.1, 5.3.1, 5.4.1 13: RMS T111, T119, T120, T166 5: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.2.1, 5.3.1, 5.4.1 14: RMS T111, T120, T166, T173 6: AS 1289 1.2.1 clause 6.4 15: RMS T120, T119, T162 7: AS 1289 1.2.1 clause 6.4 (b). 2.1.1. 5.2.1. 5.4.1. 5.8.1 16 RMS T120 T162 T173 8: AS 1289 1.2.1 clause 6.4 (b), 2.1.1., 5.5.1, 5.6.1, 5.8.1 17. RMS T120, T164, T173 Full details of Test Procedure 5.8.1 available on request Material Description CL-Clays of low plasticity, gravelly clays, sandy clays, silty clays 11. DGS40 Cement Stabilised CI-Clay of medium plasticity, gravelly clays, sandy clays, silty clays 12. FCR20 # Lime Stabilised CH-Clays of high plasticity 13. FCR40 \$ Gypsum Stabilised SC-Clayey sands, sand-clay mixtures 14. RC - Recycled Concrete SM-Silty sands, sand-silt mixtures 15. Recycled Roadbase GC-Clayey gravels, gravel-sand-clay mixtures 16. RSB - Recycled Sub-base SP-Sand, crushed dust, filling sand, washed sand 17. CSS - Crushed Sandstone DGB20 18. RSS - Ripped Sandstone DGB40 19. Coal Wash 0 DGS20 Form No R 020 Version 10 10/20 - issued by ER Accredited for compliance with A Kench 25/12/2021 ISO/IEC 17025 - Testing. Approved Signatory NATA Accreditation Number 2734 Corporate Site Number 2727

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Penrith 8599/71

Page 1 of -3

PROJECT: SITE FILL TESTING

RESIDENTIAL DEVELOPMENT WOORONG PARK MARSDEN PARK PRECINCT, NEWPARK PRECINCT 7 STAGE 7B

TEST NUMBER DATE TESTED & SAMPLED       41       42       43       44       45       46       47         DATE TESTED & SAMPLED       1001/2023       1001/2023       1001/2023       1001/2023       1001/2023         RESULTS       Hilf Density Ratio       Standard       %       105       104.5       103       101.5       99.5       99       100         Specification       Density Ratio (Standard)       295%       Specification Moisture Variance from OMC         TEST LOCATION       Image Main Mark       100				40	10		15	10	47	40
Not be defined and the second of the second			41	42	43		-	46	47	48
Hilf Density Ratio         Standard         %         105         104.5         103         101.5         99.5         99         100           Anisture Variation from OMC (-Drier/-Wetter)         %         -2.0         -1.0         -1.0         0.5         0.0         0.0           Specification         Density Ratio (Standard)         295%         Specification Moisture Variance from OMC           Test DocATION         Image         (Carriageway L/R)         Image         - <th>ESTED &amp; SAMPLED</th> <th>ľ</th> <th></th> <th></th> <th></th> <th>10/01</th> <th>/2023</th> <th></th> <th></th> <th></th>	ESTED & SAMPLED	ľ				10/01	/2023			
Hiff Density Noticure Variation from OMC (-Drier/-Wetter)         50 (-2.0         103         101.5         99.5         99         100           Specification Construction Density Ratio (Standard)         295%         Specification Moisture Variance from OMC           Specification Density Ratio (Standard)         295%         Specification Moisture Variance from OMC           Test DockTION Related by Test age Thickness         n         -										
Advisture Variation from OMC (-prior/+Wetter)         -         -         -         -         0.0         0.0           Specification         Density Ratio (Standard)         295%         Specification Moisture Variance from OMC           Test LOCATION         - <td></td> <td>1</td> <td></td> <td>r</td> <td>1</td> <td></td> <td></td> <td></td> <td>1</td> <td></td>		1		r	1				1	
Specification         Density Ratio (Standard)         295%         Specification         Moisture Variance from OMC           TEST LOCATION	sity Ratio Standard	%	105	104.5	103	101.5	99.5	99	100	99
TEST LOCATION       Image (Carriageway UR)       m       Image (Carriageway UR)       Image (Carriageway UR) <th>e Variation from OMC (-Drier/+Wetter)</th> <th>%</th> <th>-2.0</th> <th>-1.0</th> <th>-1.0</th> <th>-1.0</th> <th>0.5</th> <th>0.0</th> <th>0.0</th> <th>0.0</th>	e Variation from OMC (-Drier/+Wetter)	%	-2.0	-1.0	-1.0	-1.0	0.5	0.0	0.0	0.0
Chainage       (Carriageway L/R)       m       - </td <td>ication Density Ratio (Stand</td> <td>ard)</td> <td>≥95%</td> <td>Specific</td> <td>ation Mo</td> <td>isture Va</td> <td>riance fr</td> <td>om OMC</td> <td>:</td> <td><b>±2</b>%</td>	ication Density Ratio (Stand	ard)	≥95%	Specific	ation Mo	isture Va	riance fr	om OMC	:	<b>±2</b> %
Shown on Drawing No         Bits of the state of th										
Retested by Test ager Thickness         mm         1         0         1 <th1< th=""> <th1< th="">         1         <th< td=""><td></td><td>m</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></th<></th1<></th1<>		m	-	-	-	-	-	-	-	-
ayer Thickness       mm       150	5			-		8599	/71-3			
Reduced Level         Finished Surface Level           FIELD & LABORATORY DATA         Finished Surface Level           Field Wel Density         1/17         1/15	-		-	-	-	-	-	-	-	-
FIELD & LABORATORY DATA           Field Wet Density         Um*         2.12         2.13         2.14         2.13         2.14         2.13         2.13         2.13         2.13         2.13         2.13         2.13         2.13         2.13         2.13         2.13         2.13         2.13         2.13         2.13         2.13         2.13         2.13         2.14         2.13         2.14         2.13         2.14         2.13         2.14         2.13         2.14         2.13         2.14         2.13         2.14         2.13         2.14         2.13         2.14         2.13         2.14         2.13         2.14         2.13         2.14         2.13         2.14         2.13         2.14         2.13         2.14         2.13         2.13         2.14         2.13         2.14         2.13         2.15         15.		mm	150	150	150			150	150	150
iiiid Wet Density       t/m³       2.12       2.13       2.14       2.13       2.14       2.13       2.13       2.14       2.13       2.13       2.13       2.13       2.13       2.13       2.14       2.13       2.13       2.13       2.13       2.14       2.13       2.13       2.14       2.13       2.13       2.13       2.13       2.14       2.13       2.13       2.14       2.13       2.13       2.13       2.14       2.13       2.13       2.13       2.14       2.13       2.13       2.13       2.14       2.13       2.13       2.14       2.13       2.13       2.14       2.13       2.13       2.14       2.13       2.14       2.13       2.13       2.14       2.12       2.15       2.	Level					Finished St	urface Level			
ield Moisture Content       %       17.0       14.5       15.5       13.5       14.5       15.5       18.0         Alaterial retained on       19mm Sieve (wel)       %       5       45       45       45       46       47         ab Compaction result from test number       41       42       43       44       45       46       47         ab Compaction Date Tested       11       1201/2023       1201/2023       1601/202	& LABORATORY DATA									
Field Moisture Content       %       17.0       14.5       15.5       13.5       14.5       15.5       18.0         Adaterial retained on       19mm Sieve (wet)       %       41       42.5       <5	Density	t/m³	2.12	2.13	2.14	2.13	2.14	2.13	2.13	2.14
ab Compaction result from test number       41       42       43       44       45       46       47         ab Compaction Date Tested       1201/2023       12/01/2023       12/01/2023       12/01/2023       16/01/202	sture Content	%	17.0	14.5	15.5		14.5	15.5	18.0	15.0
ab Compaction Date Tested       I2/01/2023       I2/01/2023       I2/01/2023       I6/01/2023       I6/01/2023 <t< td=""><td>etained on 19mm Sieve (wet)</td><td>%</td><td>&lt;5</td><td>&lt;5</td><td>&lt;5</td><td>&lt;5</td><td>&lt;5</td><td>&lt;5</td><td>&lt;5</td><td>&lt;5</td></t<>	etained on 19mm Sieve (wet)	%	<5	<5	<5	<5	<5	<5	<5	<5
Peak Converted Wet Density       t/m³       2.02       2.04       2.08       2.10       2.15       2.15       2.13         Apparent Optimum Moisture Content       %       18.5       15.5       16.5       14.5       14.5       15.5       18.0         Test Procedures - See Note Number       12       13       16       16       16       16       16       16       16       17       16       16       16       16       17       16       16       16       17       16       16       16       16       16       16       16       16       16       16       16	paction result from test number		41	42	43	44	45	46	47	48
Apparent Optimum Moisture Content         %         18.5         15.5         16.5         14.5         14.5         15.5         18.0           Jumber of Compaction Points         3	paction Date Tested		12/01/2023	12/01/2023	12/01/2023	12/01/2023	16/01/2023	16/01/2023	16/01/2023	16/01/20
Jumber of Compaction Points         3<	verted Wet Density	t/m³	2.02	2.04	2.08	2.10	2.15	2.15	2.13	2.15
Test Procedures - See Note Number       12       13       13       13       13       13       13       13 </td <td>Optimum Moisture Content</td> <td>%</td> <td>18.5</td> <td>15.5</td> <td>16.5</td> <td>14.5</td> <td>14.5</td> <td>15.5</td> <td>18.0</td> <td>14.5</td>	Optimum Moisture Content	%	18.5	15.5	16.5	14.5	14.5	15.5	18.0	14.5
Material Description - see below       Image: Constraint of the set of	of Compaction Points		3	3	3	3	3	3	3	3
Notes       10       Assigned Values have been obtained from our Penith laboratory – Accreditation No 14234       110       AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.5.1, 5.6.1         2: Assigned Values have been adolated using infinit decimal places. Therefore, calculated values may vary from those shown       10: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.7.1         3: Results have been adolated using infinit decimal places. Therefore, calculated values may vary from those shown       11: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.7.1         4: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.4.1       12: AS 1280 1.2.1 clause 6.4 (b), 2.1.1, 5.7.1, 5.8.1         5: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.2.1, 5.4.1       13: RMS T111, T119, T120, T166         6: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.2.1, 5.4.1, 5.8.1       16: RMS T120, T162, T173         7: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.5.1, 5.6.1       17: RMS T120, T162, T173         8: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.5.1, 5.6.1       17: RMS T120, T164         9: Full details of Test Procedure 5.8.1 available on request       17: RMS T120, T164         Material Description         0: Cl-Clay of medium plasticity, gravely clays, sandy clays, silty clays       11: DGS40       * Cement Stabilised         0: Cl-Clay of and, sub-ded mixtures       18: RS2 - Ripped Sandstone       19: SecVied Roadbase         0: GC-Clayer gravels, gravel-sand-clay mixtures       18: RS3 - Ripped Sandstone       19: Cowels Brown	edures - See Note Number		12	12	12	12	12	12	12	12
1: Assigned Values have been obtained from our Pentith laboratory – Accreditation No 2734       10: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.5.1, 5.6.1         2: Assigned Values have been obtained from our Prestons laboratory – Accreditation No 14234       11: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.5.1, 5.6.1         1: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.4.1       12: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.5.1         1: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.4.1       12: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.5.1         1: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.4.1       13: RMS T111, T19, T162, T163         1: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.4.1       14: RMS T111, T19, T162, T163         1: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.4.1       15: RMS T120, T119, T162         1: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.5.1       15: RMS T120, T119, T162         1: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.5.1       15: RMS T120, T119, T162         1: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.5.1       15: RMS T120, T119, T162         1: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.5.1       15: RMS T120, T119, T162         1: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.5.1       15: RMS T120, T119, T162         1: Metarial Description       15: Recvelet       16: RMS T120, T119, T162         1: Cl-Clays of Inop plasticity, gravely clays, sandy clays, silty clays       11. DGS40       * Cement Stabilised	Description - see below		2	2	2	2	2	2	2	2
<ul> <li>CL-Clays of low plasticity, gravelly clays, sandy clays, silty clays</li> <li>CL-Clays of medium plasticity, gravelly clays, sandy clays, silty clays</li> <li>CL-Clays of medium plasticity, gravelly clays, sandy clays, silty clays</li> <li>CL-Clays of high plasticity</li> <li>CL-Clays of high plasticity</li> <li>SC-Clayer sands, sand-clay mixtures</li> <li>SC-Clayer sands, sand-clay mixtures</li> <li>SC-Clayer gravels, gravel-sand-clay mixtures</li> <li>SC-S-Crushed gravels</li> <li>S</li></ul>	d Values have been obtained from our Prestons laborato have been calculated using infinite decimal places. Ther 11.2.1 clause 6.4 (b), 2.1.1, 5.1.1, 5.3.1, 5.4.1 01.2.1 clause 6.4 (b), 2.1.1, 5.2.1, 5.3.1, 5.4.1 01.2.1 clause 6.4 (b), 2.1.1, 5.2.1, 5.4.1, 5.8.1 01.2.1 clause 6.4 (b), 2.1.1, 5.2.1, 5.4.1, 5.8.1 01.2.1 clause 6.4 (b), 2.1.1, 5.5.1, 5.6.1, 5.8.1	ory – Accred	itation No 1423		se shown	11: AS 1289 1. 12: AS 1289 1. 13: RMS T111 14: RMS T111 15: RMS T120 16: RMS T120	2.1 clause 6.4 ( 2.1 clause 6.4 ( , T119, T120, T <sup>2</sup> , T120, T166, T <sup>2</sup> , T119, T162 , T162, T173	b), 2.1.1, 5.3.1, 5 b), 2.1.1, 5.7.1, 5 166	5.7.1	
Form No R 020 Version 12 05/22 - issued by ER Accredited for compliance with ISO/IEC 17025 - Testing. Accreditation Number 2734 Corporate Site Number 2727	s of low plasticity, gravelly clays, sandy clays, silty clays of medium plasticity, gravelly clays, sandy clays, silty clay s of high plasticity ay sands, sand-clay mixtures sands, sand-silt mixtures ey gravels, gravel-sand-clay mixtures	/S			12. FCR20 13. FCR40 14. RC - Recyc 15. Recycled R 16. RSB - Recy 17. CSS - Crus 18. RSS - Ripp	oadbase vcled Sub-base hed Sandstone ed Sandstone		# Lime Stabilis	ed	
	ccreditation Number 2734		•				A K	AL-	23/01	

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Laboratory:								
Job No:								

Penrith 8599/71

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PROJECT: SITE FILL TESTING

RESIDENTIAL DEVELOPMENT WOORONG PARK MARSDEN PARK PRECINCT, NEWPARK PRECINCT 7 STAGE 7B

TEST NUMBER			49	50	51						
DATE TESTED & SAMPLED				10/01/2023							
RESULTS											
Hilf Density Ratio	Standard	%	98	98.5	98.5						
Moisture Variation fro	OM OMC (-Drier/+Wetter)	%	0.5	0.0	0.0						
Specification Density Ratio (Standard) ≥95% Specification Moisture Variance from OMC ±2%											
TEST LOCATION		-									
Chainage	(Carriageway L/R)	m	-	-	-						
Shown on Drawing No				8599/71-3							
Retested by Test			-	-	-						
Layer Thickness		mm	150	150	150						
Reduced Level			Finis	hed Surface	Level						
FIELD & LABORATORY DATA											
Field Wet Density		t/m³	2.13	2.13	2.14						
Field Moisture Content		%	15.0	15.0	14.0						
Material retained on	19mm Sieve (wet)	%	<5	<5	<5						
Lab Compaction result fro			49	50	51						
Lab Compaction Date Tested			12/01/2023	12/01/2023	12/01/2023						
Peak Converted Wet Density		t/m³	2.17	2.16	2.17						
Apparent Optimum Moisture Content		%	14.5	15.0	14.0						
Number of Compaction Points			3	3	3						
Test Procedures - See Note Number			12	12	12						
Material Description - see below Notes			2	2	2						
<ol> <li>Assigned Values have been obtained from our Penrith laboratory – Accreditation No 2734</li> <li>Assigned Values have been obtained from our Prestons laboratory – Accreditation No 14234</li> <li>Results have been calculated using infinite decimal places. Therefore, calculated values may vary from thos</li> <li>AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.1.1, 5.3.1, 5.4.1</li> <li>AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.2.1, 5.3.1, 5.4.1</li> <li>AS 1289 1.2.1 clause 6.4 (b), 7.1.1, 5.2.1, 5.3.1, 5.4.1</li> <li>AS 1289 1.2.1 clause 6.4 (b), 7.1.1, 5.2.1, 5.4.1, 5.8.1</li> <li>AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.2.1, 5.4.1, 5.8.1</li> <li>AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.5.1, 5.6.1, 5.8.1</li> <li>Full details of Test Procedure 5.8.1 available on request</li> </ol>						10: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.5.1, 5.6.1 11: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.3.1, 5.7.1 2: AS 1289 1.2.1 clause 6.4 (b), 2.1.1, 5.7.1, 5.8.1 13: RMS T111, T119, T120, T166 14: RMS T111, T120, T166, T173 15: RMS T120, T119, T162 16. RMS T120, T162, T173 17. RMS T120, T164, T173					
Material Description											
<ol> <li>CL-Clays of low plasticity, gravelly clays, sandy clays, silty clays</li> <li>Cl-Clays of high plasticity, gravelly clays, sandy clays, silty clays</li> <li>CH-Clays of high plasticity</li> <li>SC-Clayey sands, sand-clay mixtures</li> <li>SM-Silty sands, sand-silt mixtures</li> <li>GC-Clayey gravels, gravel-sand-clay mixtures</li> <li>SP-Sand, crushed dust, filling sand, washed sand</li> <li>DGB20</li> <li>DGS20</li> </ol>					11. DGS40       * Cement Stabilised         12. FCR20       # Lime Stabilised         13. FCR40       \$ Gypsum Stabilised         14. RC - Recycled Concrete       15. Recycled Roadbase         15. Recycled Roadbase       16. RSB - Recycled Sub-base         17. CSS - Crushed Sandstone       18. RSS - Ripped Sandstone         19. Cowels Brown       -						
Form No R 020 Version 12 05/22	- issued by ER								Repor		
Accredited for compliance with ISO/IEC 17025 - Testing. Accreditation Number 2734 Corporate Site Number 2727					A Kench 23/01/2022						
Approved Signatory											
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