

BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH15

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** HAL
Rig Type : 150mm Diatube **Mounting:** Stand **Contractor :** Diacore **Driller :** Noah **Checked :** ICC
Date Started : 3/7/2019 **Date Completed :** 3/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

Note: * indicates signatures on original issue of log or last revision of log

DRILLING				MATERIAL				DCP			Comments/ Observations
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	DCP Test Results	
1	Diatube	Nil	GNE	0.02	[Pattern]	-	TILE: pale grey, 15mm.	-	-	blows per 100mm	5
	0.06			-		BEDDING LAYER: stabilised sand, grey.	-	-			
2	Hand Auger	Nil	GNE	0.15	[Pattern]	-	CONCRETE: dark grey, mixed aggregates up to 20mm.	-	-	blows per 100mm	3
				0.32		-	CONCRETE: pale grey, mixed rounded aggregates up to 40mm.	-	-		
1	Hand Auger	Nil	GNE	0.45	[Pattern]	-	FILL: SAND: yellow, fine to medium grained, trace charcoal up to 20mm (fill).	M	MD	blows per 100mm	5
				0.45		CH	0.42m, coarse gravel layer.	w-PL	St		
2	Hand Auger	Nil	GNE	0.6m	[Pattern]	-	CLAY: brown mottled orange-red, high plasticity (residual).	-	-	blows per 100mm	6
				0.6m		-	0.6m, becoming brown mottled red, trace sub-angular gravel (ironstone).	-	-		
1	Hand Auger	Nil	GNE	0.85	[Pattern]	-	0.83m, becoming red mottled brown grey.	-	-	blows per 100mm	11
				0.85		-	End of Borehole at 0.85 metres. Refusal.	-	-		
2	Hand Auger	Nil	GNE	1.90	[Pattern]	-	Refusal. Double bounce @ 1.90m	-	-	blows per 100mm	14
				1.90		-	Refusal. Double bounce @ 1.90m	-	-		

See standard sheets for details of abbreviations & basis of descriptions



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 CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No.
21-28380

GEO BOREHOLE DCP ASI726 2017 21-28380 CRONULLACENTRE_STG2.GPJ GHD TEMPLATE 2.00.GDT 2/8/19

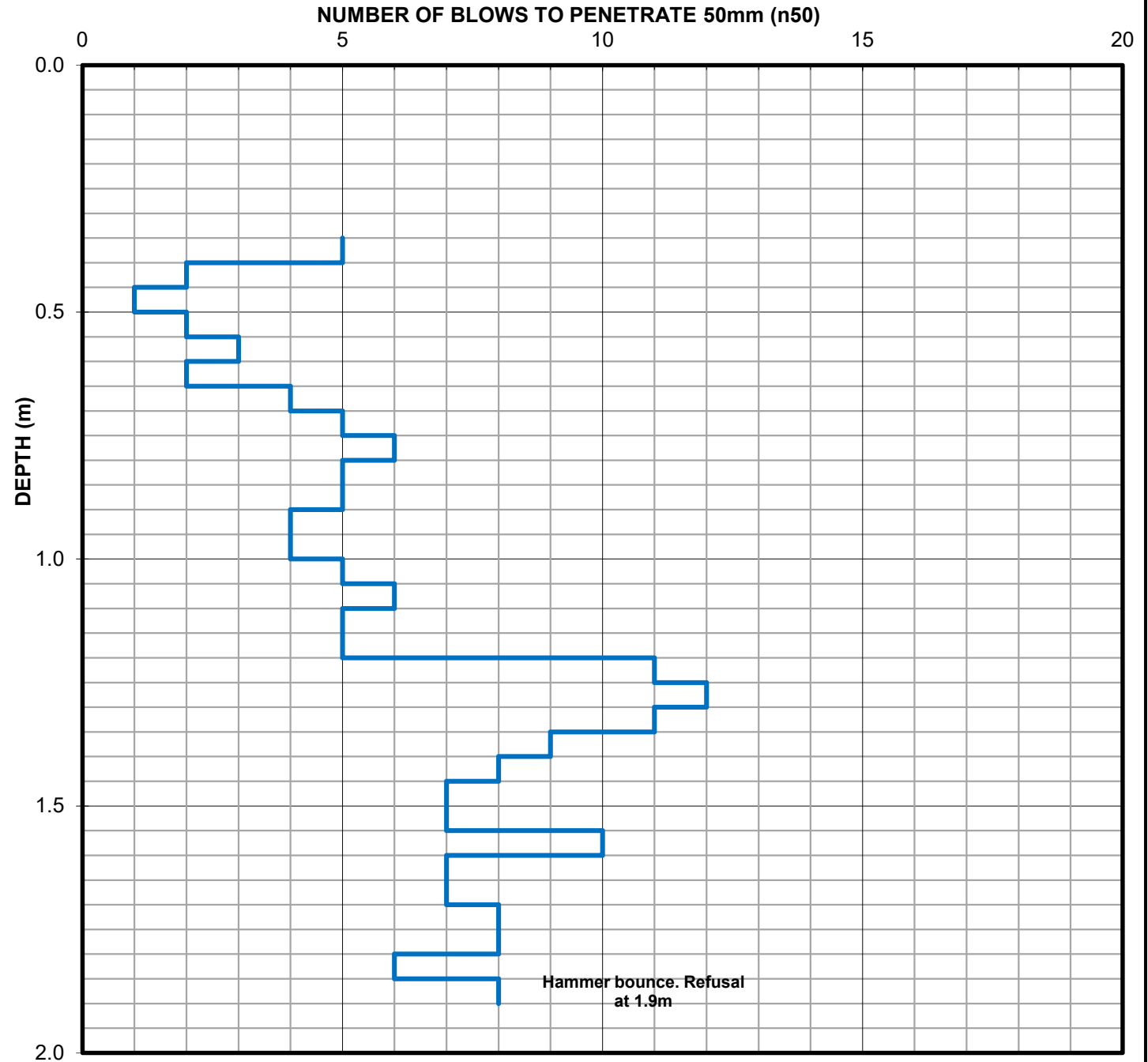
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
 Project: Cronulla Town Centre Design Stage 2
 Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP15

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 04/07/19
Adjacent Test Hole / Pit: BH15		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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Job No.
2128380



TP: BH15

DEPTH: 0.00 - 0.33m

CLIENT: Sutherland Shire Council

PROJECT: Cronulla Town Centre Design

PROJECT NUMBER: 21 / 28380 /

LOCATION: Cronulla Town Center

DATE: 4/7/19



BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH16

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** HAL
Rig Type : 150mm Diatube **Mounting:** Stand **Contractor :** Diacore **Driller :** Noah **Checked :** ICC
Date Started : 3/7/2019 **Date Completed :** 3/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

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DRILLING				MATERIAL				DCP			Comments/ Observations
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	DCP Test Results	
1	Diatube	Nil	GNE	0.02	[Pattern: Small triangles]	-	TILE: grey, 15mm.	-	-	blows per 100mm 0 20 40	5
				0.06		-	BEDDING LAYER: stabilised sand, grey.	-	-		
1	Hand Auger	Nil	GNE	0.25	[Pattern: Cross-hatch]	-	FILL: Sandy GRAVEL: brown, fine to medium, sub-rounded to sub-angular fine to medium grained sand, trace silt (fill).	M	MD	7	3
				0.40		CH	CLAY: brown mottled red, high plasticity, trace medium to coarse sub-rounded to sub-angular gravel (ironstone) (residual).	w= PL	St		
2	Hand Auger	Nil	GNE	1.1	[Pattern: Diagonal lines]	-	1.1m, becoming red mottled grey.	VSt	St	9	7
				1.45		-	1.4m, becoming grey mottled red.				
				1.45			End of Borehole at 1.45 metres. Refusal.			9	12
										11	4

DCP @ 1.70m: Bounce

See standard sheets for details of abbreviations & basis of descriptions



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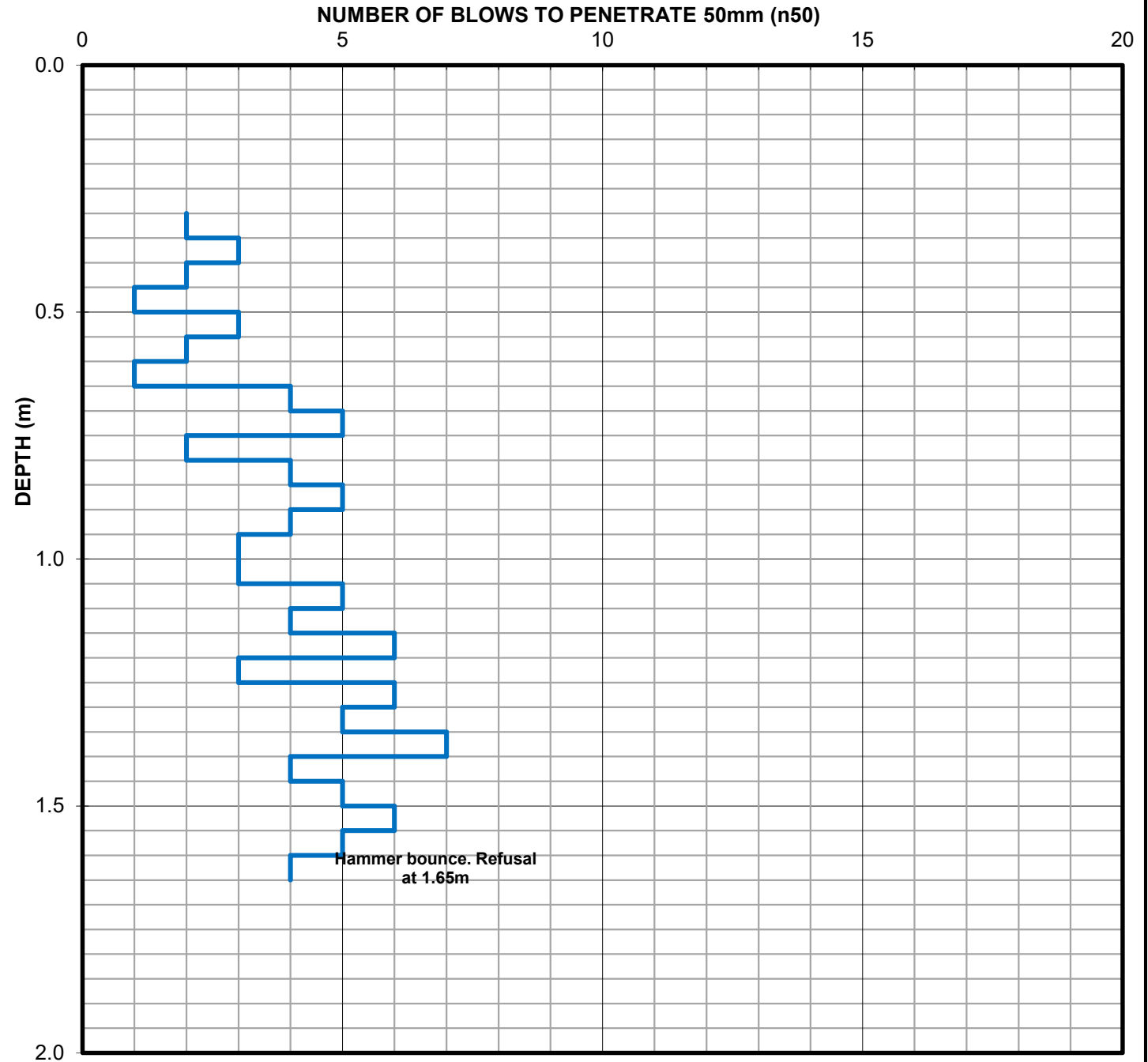
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
 Project: Cronulla Town Centre Design Stage 2
 Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP16

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 04/07/19
Adjacent Test Hole / Pit: BH16		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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2128380



TP: BH16

DEPTH: 0.00 - 0.24 m

CLIENT: Sutherland Shire Council

PROJECT: Cronulla Town Centre Design

PROJECT NUMBER: 21 / 28380

LOCATION: Cronulla Town Center

DATE: 4/7/19



BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH17

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** HAL
Rig Type : - **Mounting:** - **Contractor :** - **Driller :** - **Checked :** ICC
Date Started : 8/7/2019 **Date Completed :** 8/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

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DRILLING				MATERIAL				DCP				Comments/ Observations	
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	DCP Test Results		Recorded Blows
								[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects			blows per 100mm		
	Hand Auger	Nil	GNE	ES/D	0.25		-	TOPSOIL: Sandy SILT: dark brown, fine to medium grained sand, with rootlets.	M	L			3
				ES/D	0.45		-	FILL: SAND: beige, fine to medium grained.	M	L	MD		13
				ES/D	0.75		CI	Gravelly CLAY: brown, medium plasticity, fine to coarse sub-rounded to sub-angular gravel (ironstone), trace sand (residual).	w=PL	St			3
				ES/D	0.98		CH	CLAY: brown mottled orange, high plasticity, trace fine gravel (residual). 0.8m, becoming orange mottled brown to red, trace medium, sub-angular gravel (ironstone).	w=PL	St H			6
1								Inferred coarse ironstone layer. End of Borehole at 0.98 metres. Refusal.					24
													35
													DCP Refusal @1.1m

GEO BOREHOLE DCP ASI726 2017 21-28380 CRONULLACENTRE STG2.GPJ GHD GEO_TEMPLATE 2.00.GDT 2/8/19

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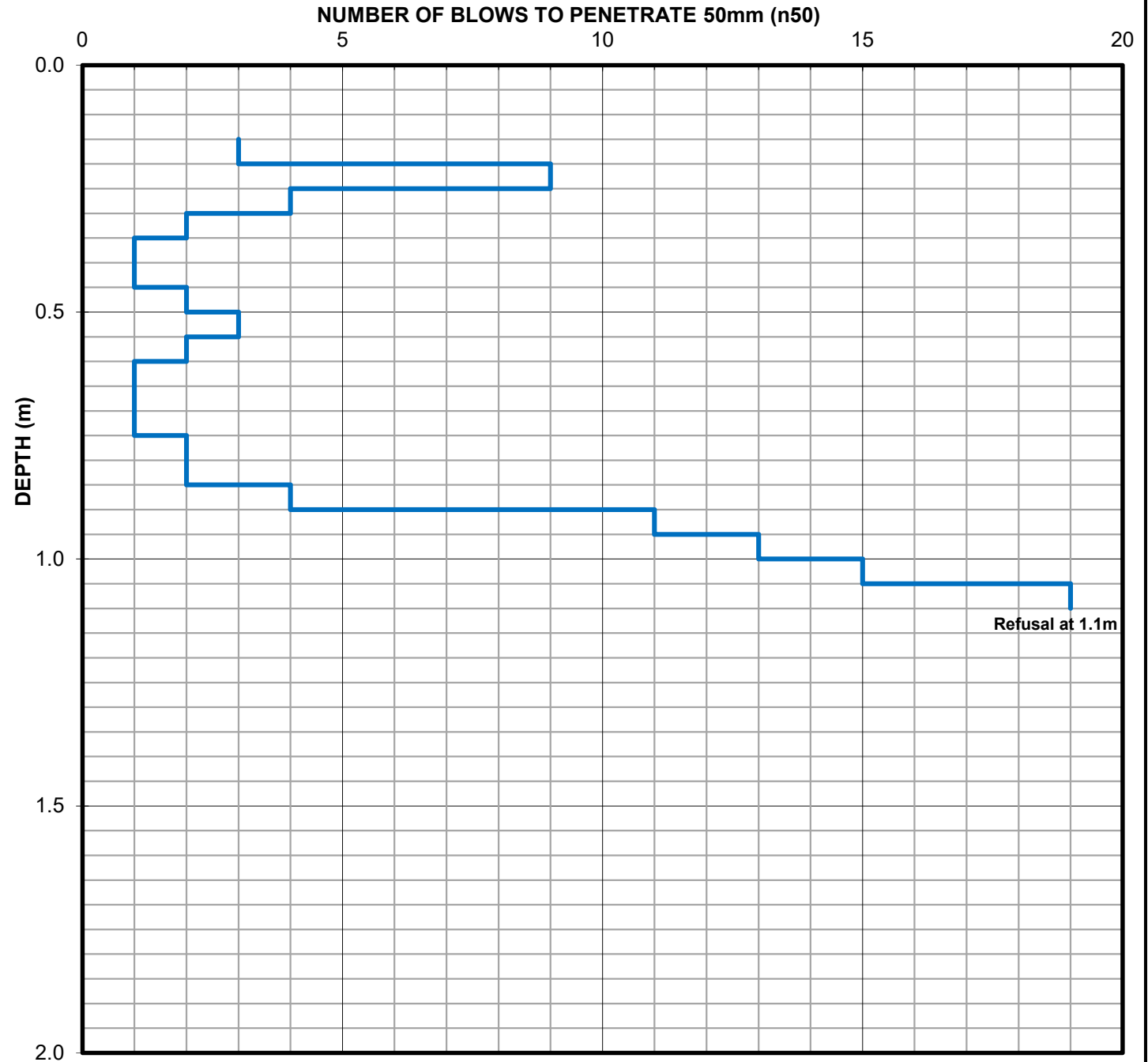
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
 Project: Cronulla Town Centre Design Stage 2
 Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP17

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 08/07/19
Adjacent Test Hole / Pit: BH17		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH20

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** HAL
Rig Type : 150mm Diatube **Mounting:** Stand **Contractor :** Diacore **Driller :** Noah **Checked :** ICC
Date Started : 2/7/2019 **Date Completed :** 2/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL				DCP			Comments/ Observations
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	DCP Test Results	
1	Diatube	Nil	GNE	DS	0.01		-	TILE: grey, 15mm.	-	-	0 20 40 blows per 100mm	17
	Hand Auger				0.06		-	BEDDING LAYER: stabilised sand, grey.	-	-		
2					0.21		-	CONCRETE: grey, mixed aggregates up to 20mm. 0.11-0.13m, steel reinforcement.			34	15
					0.55		-	FILL: Gravelly SAND: dark brown, fine to medium grained, fine to coarse sub-rounded to sub-angular gravel (basalt and sandstone), trace silt, trace clay (fill). 0.44m, becoming brown. 0.5m, with rootlets.				
								End of Borehole at 0.55 metres. Refusal.			DCP @ 0.6m: Terminated	

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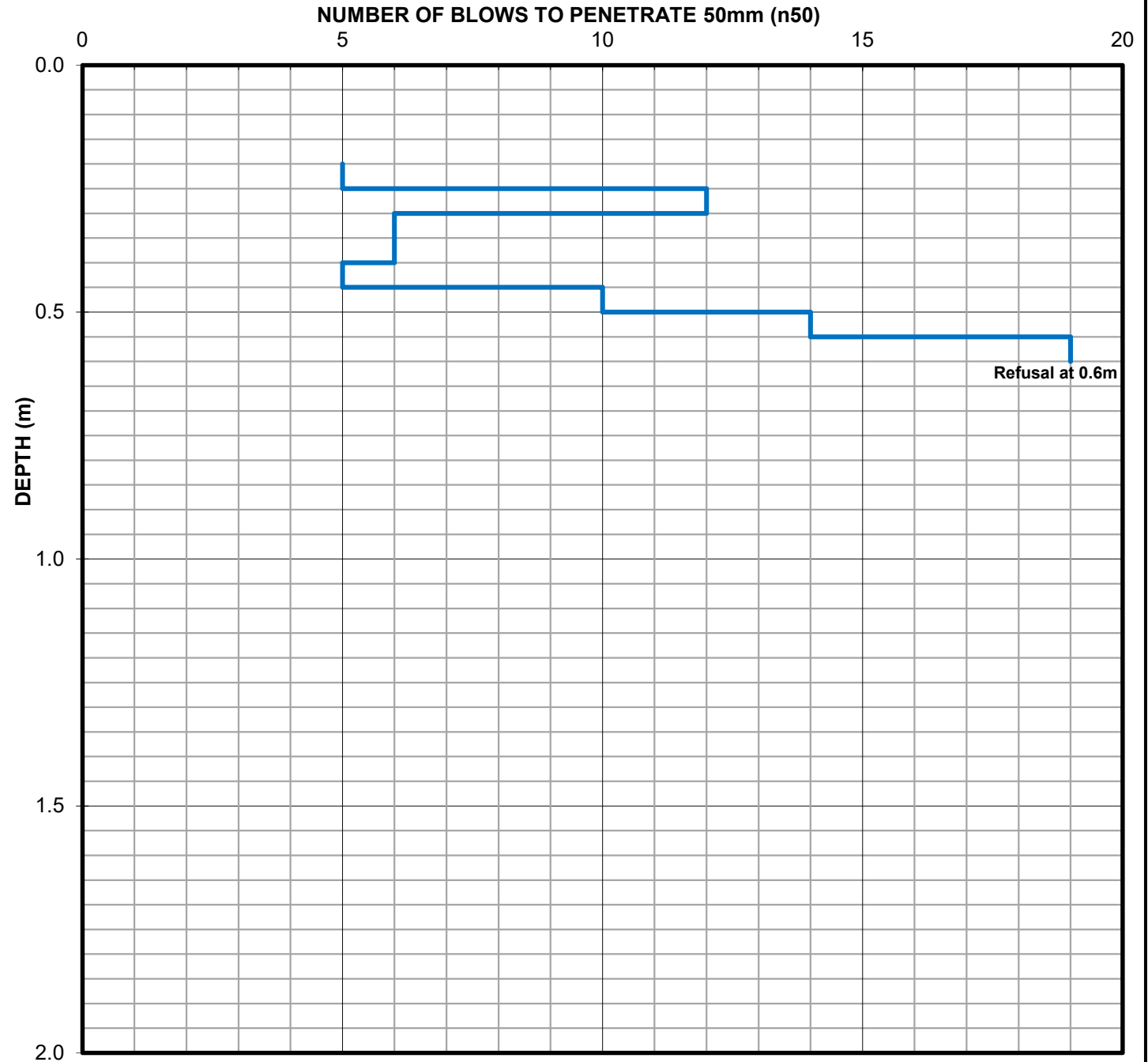
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
 Project: Cronulla Town Centre Design Stage 2
 Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP20

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 02/07/19
Adjacent Test Hole / Pit: BH20		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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Job No.
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TP: BH 20

DEPTH: 0.00 - 0.21m

CLIENT: Sutherland Shire Council

PROJECT: Cronulla Town Centre Design GI

PROJECT NUMBER: 21 / 28380

LOCATION: Cronulla Town Center

DATE: 2/7/19



BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH21

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** SBO
Rig Type : 150mm Diatube **Mounting:** Stand **Contractor :** Diacore **Driller :** Noah **Checked :** ICC
Date Started : 2/7/2019 **Date Completed :** 2/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

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DRILLING				MATERIAL				DCP			Comments/ Observations
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	DCP Test Results	
1	Diatube	Nil	GNE	0.02		-	TILE: grey, 20mm.	-	-	blows per 100mm 0 20 40	4
	0.06			-		BEDDING LAYER: stabilised sand, grey.	-	-			
2	Hand Auger	Nil	GNE	0.23		-	CONCRETE: grey, mixed aggregates up to 20mm. 0.17m, steel reinforcement.	M	MD	5	
	0.55			-		FILL: Gravelly SAND: brown, fine to coarse grained, sub-angular to angular gravel (igneous) (fill).	D	H	8		
1				0.70		Cl-CH	CLAY: brown mottled orange, medium to high plasticity, trace fine to coarse sub-angular to angular gravel (ironstone) (residual).	w < PL	H	17	
				0.70			End of Borehole at 0.7 metres. Refusal.				28
										22	
										19	
										24	
										23	

DCP @ 1.1m:
Terminated

See standard sheets for details of abbreviations & basis of descriptions



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GEO BOREHOLE DCP AS1726 2017 21-28380 CRONULLACENTRE_STG2.GPJ GHD TEMPLATE 2.00.GDT 2/8/19

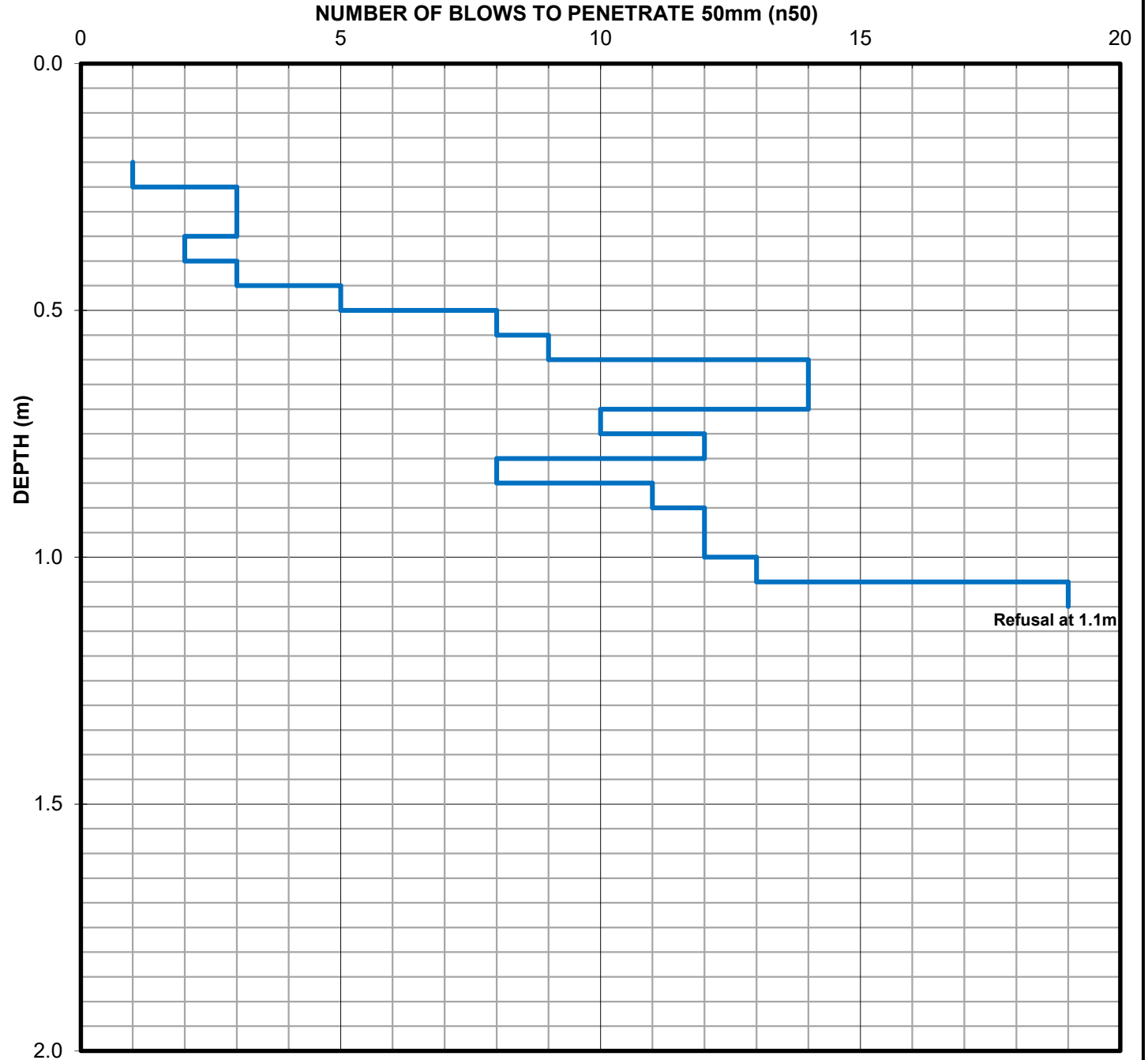
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
 Project: Cronulla Town Centre Design Stage 2
 Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP21

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 02/07/19
Adjacent Test Hole / Pit: BH21		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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Job No.
2128380



TP: BH 21

DEPTH: 0.00 - 0.23m

CLIENT: Sutherland Shire Council

PROJECT: Cronulla Town Centre Design GI

PROJECT NUMBER: 21 / 28380 /

LOCATION: Cronulla Town Center

DATE: 2/7/19



BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH22

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** SBO
Rig Type : 150mm Diatube **Mounting:** Stand **Contractor :** Diacore **Driller :** Noah **Checked :** ICC
Date Started : 5/7/2019 **Date Completed :** 5/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL				DCP			Comments/ Observations
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	DCP Test Results	
1	Diatube				0.13		-	CONCRETE: grey, black angular aggregates up to 15mm.	-	-		
	Hand Auger	Nil	GNE	ES/ DS	0.30		-	FILL: Gravelly SAND: brown, fine to coarse grained, fine to medium sub-angular to sub-rounded gravel, trace silt.	M	MD		
				ES/ DS	0.40		-	FILL: GRAVEL: black, medium to coarse, sub-rounded to sub-angular (predominantly volcanics), trace sand (fill).	w= PL	H		
				DS				CH	Gravelly CLAY: brown mottled orange, high plasticity, medium to coarse, sub-rounded to sub-angular gravel (ironstone), trace sand (residual). 0.65m, becoming red mottled brown.			
				DS	0.83			End of Borehole at 0.83 metres. Refusal.			DCP @ 0.85m: Terminated	
2												

See standard sheets for details of abbreviations & basis of descriptions



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GEO BOREHOLE DCP ASI726 2017 21-28380 CRONULLACENTRE_STG2.GPJ GHD_TEMPLATE 2.00.GDT 2/8/19

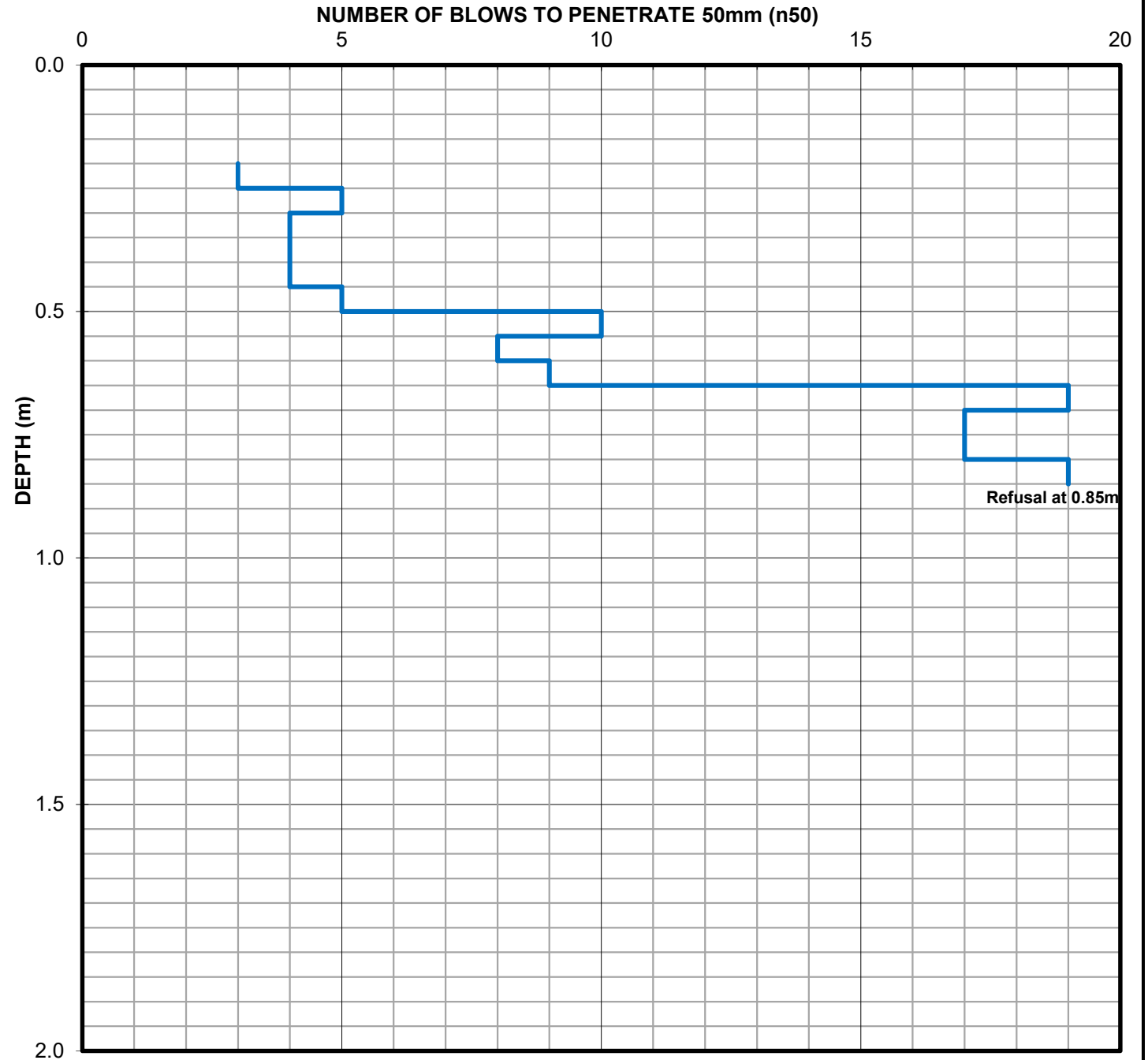
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
 Project: Cronulla Town Centre Design Stage 2
 Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP22

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 05/07/19
Adjacent Test Hole / Pit: BH22		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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Job No.

2128380



TP: BH22

DEPTH: 0.00 - 0.12m

CLIENT: Sutherland Shire Council

PROJECT: Cronulla Town Centre Design

PROJECT NUMBER: 21 / 28380 /

LOCATION: Cronulla Town Center

DATE: 5/7/19



BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH23

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** SBO
Rig Type : 150mm Diatube **Mounting:** Stand **Contractor :** Diacore **Driller :** Noah **Checked :** ICC
Date Started : 2/7/2019 **Date Completed :** 2/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

Note: * indicates signatures on original issue of log or last revision of log

DRILLING				MATERIAL				DCP		Comments/ Observations	
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index		DCP Test Results
1	Diatube	Nil	GNE	0.02		-	TILE: grey, 20mm.	-	-	blows per 100mm	0 20 40
	0.04			-		BEDDING LAYER: stabilised sand, grey.	-	-			
1	Hand Auger	Nil	GNE	0.20		-	CONCRETE: grey, mixed aggregates up to 20mm	M	D-VD	18	24
				0.20		-	FILL: Clayey SAND: brown, fine to medium grained, with fine to coarse sub-rounded to sub-angular gravel (predominantly sandstone) (fill).				
1	Hand Auger	Nil	GNE	0.65		CI	Gravelly CLAY: red-brown, medium to high plasticity, fine to coarse sub-angular to angular gravel (ironstone), trace sand (residual).	w < PL	VSt	8	8
				0.65							
2	Hand Auger	Nil	GNE	1.00			End of Borehole at 1 metres. Refusal.	H		19	26
				1.00							

See standard sheets for details of abbreviations & basis of descriptions



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GEO BOREHOLE DCP ASI726 2017 21-28380 CRONULLACENTRE STG2.GPJ GHD GEO_TEMPLATE 2.00.GDT 2/8/19

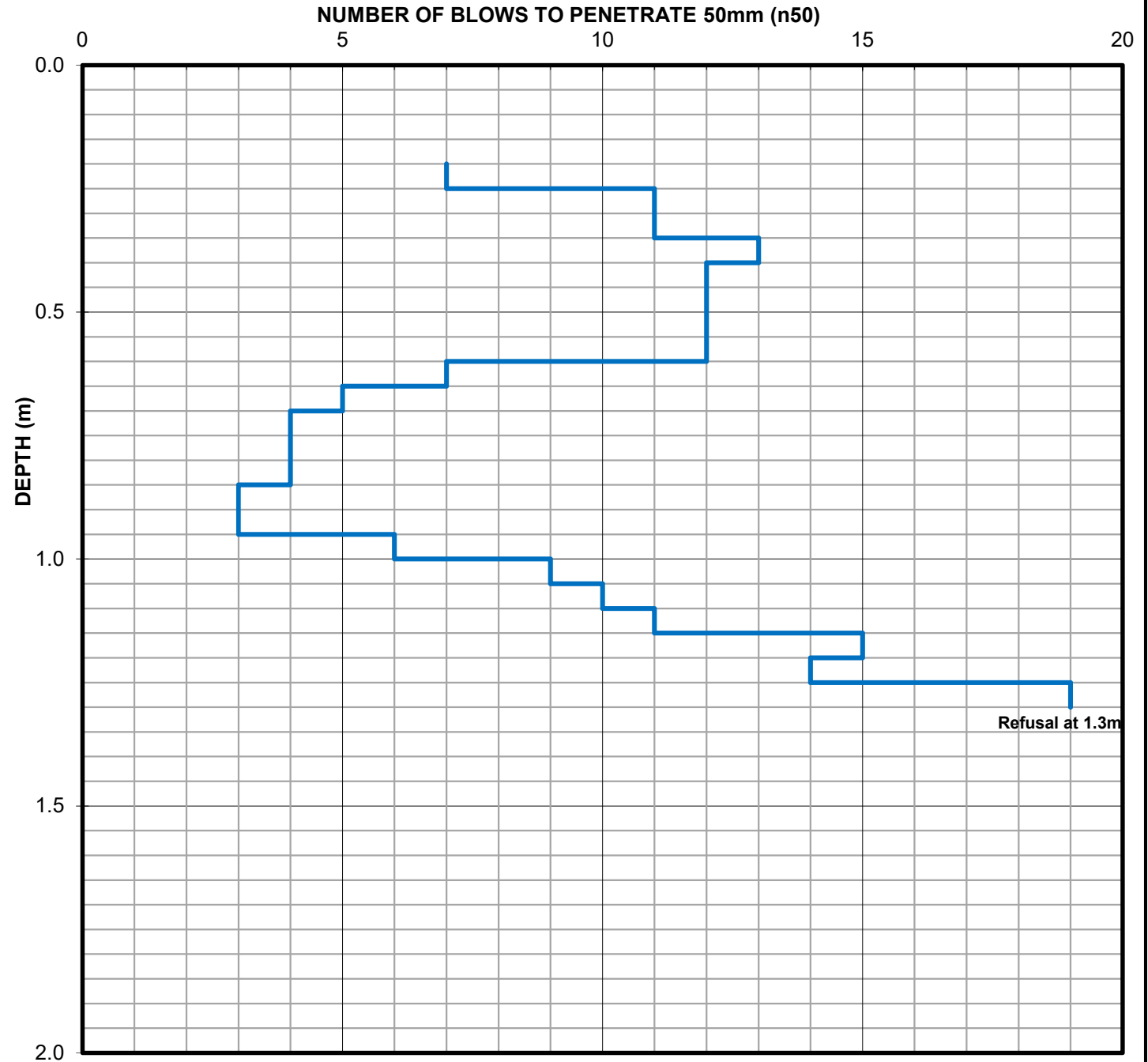
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
 Project: Cronulla Town Centre Design Stage 2
 Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP23

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 02/07/19
Adjacent Test Hole / Pit: BH23		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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Job No.
2128380



TP: BH 23

DEPTH: 0.00 - 0.20m

CLIENT: Sutherlands Shire Council

PROJECT: Cronulla Town Centre Design GI

PROJECT NUMBER: 21 / 28380

LOCATION: Cronulla Town Center

DATE: 2/7/19



BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH24

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** SBO
Rig Type : 150mm Diatube **Mounting:** Stand **Contractor :** Diacore **Driller :** Noah **Checked :** ICC
Date Started : 5/7/2019 **Date Completed :** 5/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

Note: * indicates signatures on original issue of log or last revision of log

DRILLING				MATERIAL				DCP			Comments/ Observations
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	DCP Test Results	
1	Diatube	Nil	GNE	0.01	[Symbol]	-	TILE: grey, 15mm.	-	-		7
				0.03		-	BEDDING LAYER: stabilised sand, grey.	-	-		
	0.28			[Symbol]	-	CONCRETE: grey, mixed aggregates up to 20mm. 0.22m, steel reinforcement.	-	-	12		
	0.60				-	FILL: CLAY: brown, medium plasticity, trace sand, trace rootlets and roots (fill).	w= PL	VSt			
2	Hand Auger	Nil	GNE	0.90	[Symbol]	CI	Gravelly CLAY: brown, medium plasticity, fine to medium sub-angular to angular gravel, trace sand (residual).	w= PL	VSt	9	13
				0.95		CI	CLAY: brown mottled red, medium plasticity, with medium to coarse sub-angular gravel (ironstone) (residual). End of Borehole at 0.95 metres. Refusal.	w= PL	VSt	11	17
											16

DCP @ 2.0m:
Terminated

See standard sheets for details of abbreviations & basis of descriptions



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GEO BOREHOLE DCP AS1726 2017 21-28380 CRONULLACENTRE_STG2.GPJ GHD_TEMPLATE 2.00.GDT 2/8/19

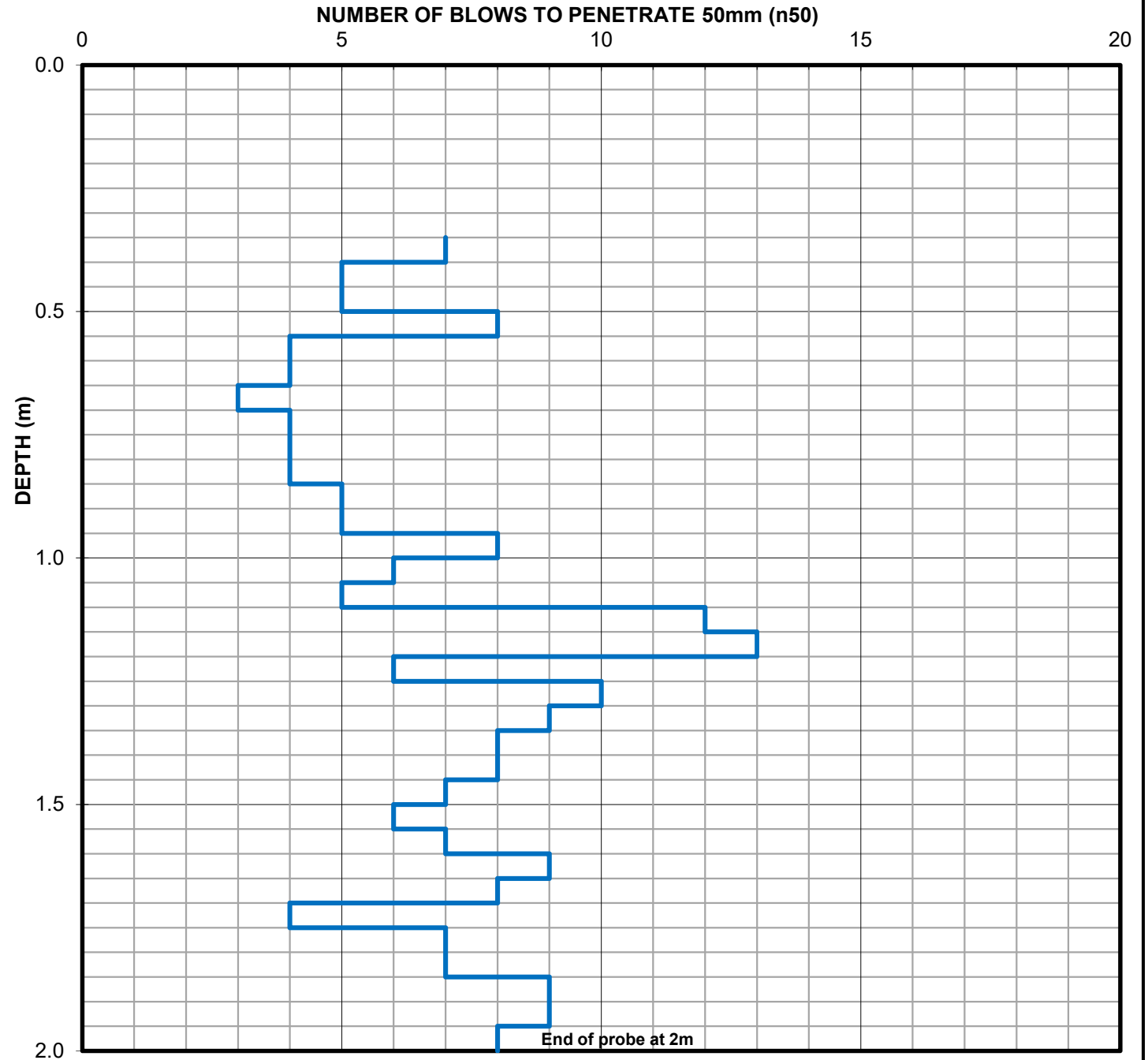
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
 Project: Cronulla Town Centre Design Stage 2
 Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP24

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 05/07/19
Adjacent Test Hole / Pit: BH24		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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TP: BH24

DEPTH: 0.00 - 0.28m

CLIENT: Sutherland Shire Council

PROJECT: Cronulla Town Centre Design

PROJECT NUMBER: 21 / 28380 /

LOCATION: Cronulla Town Center

DATE: 5/7/19



BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH25

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** SBO
Rig Type : 150mm Diatube **Mounting:** Stand **Contractor :** Diacore **Driller :** Noah **Checked :** ICC
Date Started : 5/7/2019 **Date Completed :** 5/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

Note: * indicates signatures on original issue of log or last revision of log

DRILLING				MATERIAL				DCP				Comments/ Observations		
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	DCP Test Results				
							[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects			blows per 100mm			Recorded Blows	
										0	20	40		
	Diatube			0.02		-	TILE: grey, 15mm.	-	-					
				0.07		-	BEDDING LAYER: stabilised sand, grey.	-	-					
				0.18		-	CONCRETE: dark grey, mixed aggregates up to 20mm.							
				0.30		-	0.13m, steel reinforcement.	M	MD				12	
	Hand Auger	Nil	GNE	DS		Cl	FILL: Sandy GRAVEL: fine to coarse, angular to sub-rounded (igneous), fine to medium grained sand (fill).	w=PL	St				6	
				DS			Gravelly CLAY: brown, medium plasticity, fine to coarse sub-angular to sub-rounded gravel, trace sand (residual).						5	
				0.60		CH	CLAY: brown mottled red, high plasticity (residual).	w=PL	St				4	
				DS									5	
				0.75			End of Borehole at 0.75 metres. Refusal.						8	
1													9	
													7	
													12	
													13	
													18	
													19	
													16	
													11	
													12	
													13	
													13	
2														

DCP @ 2.0m:
Terminated

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GEO BOREHOLE DCP ASI726 2017 21-28380 CRONULLACENTRE STG2.GPJ GHD TEMPLATE 2.00.GDT 2/8/19

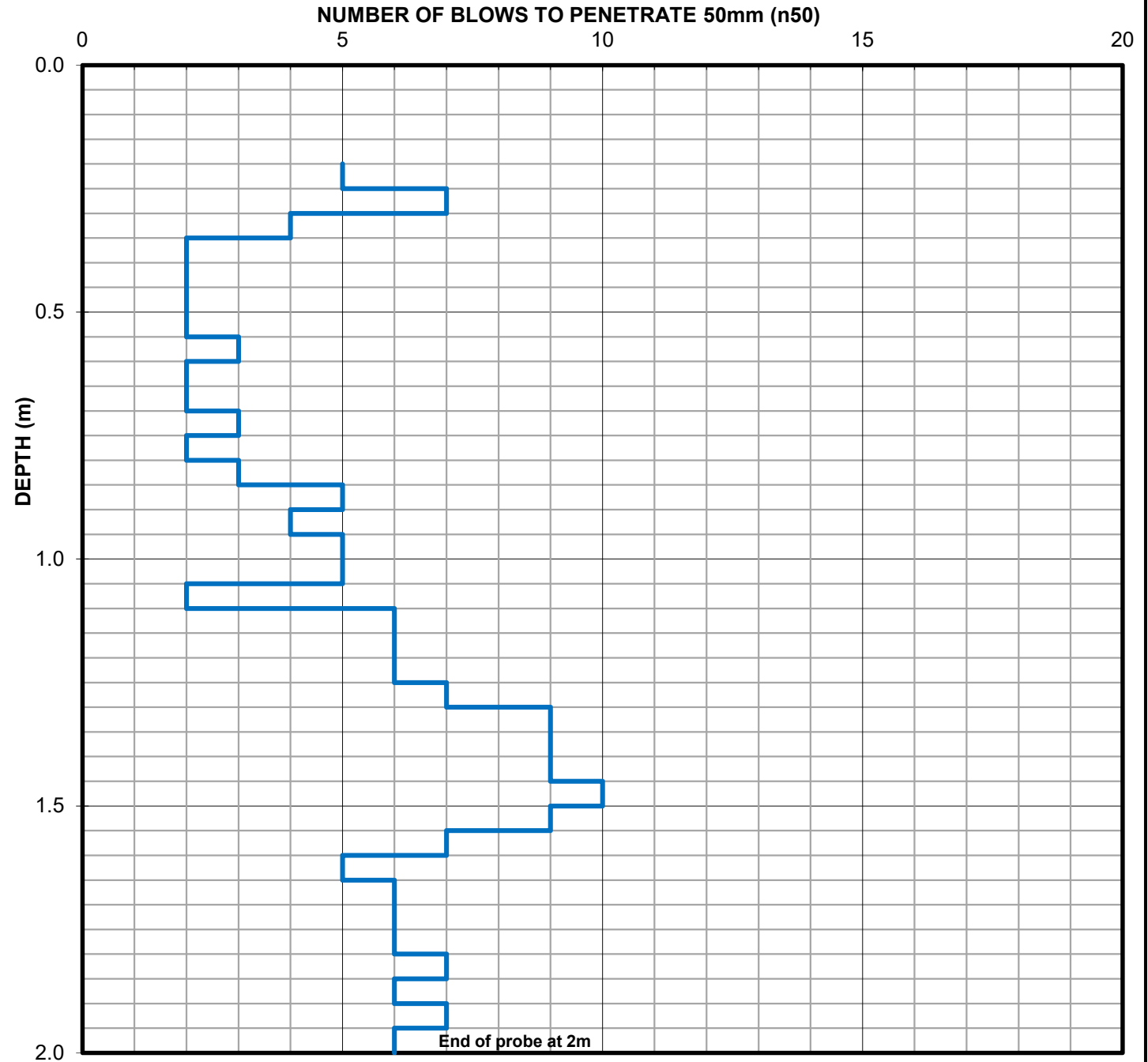
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
 Project: Cronulla Town Centre Design Stage 2
 Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP25

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 05/07/19
Adjacent Test Hole / Pit: BH25		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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Job No.
2128380



TP: BH25

DEPTH: 0.00 - 0.18m

CLIENT: Sutherland Shire Council

PROJECT: Cronulla Town Centre Design

PROJECT NUMBER: 21 / 28380 /

LOCATION: Cronulla Town Center

DATE: 5/7/19



BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH26

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** SBO
Rig Type : 150mm Diatube **Mounting:** Stand **Contractor :** Diacore **Driller :** Noah **Checked :** ICC
Date Started : 2/7/2019 **Date Completed :** 2/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

Note: * indicates signatures on original issue of log or last revision of log

DRILLING				MATERIAL				DCP		Comments/ Observations	
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index		DCP Test Results
1	Diatube	Nil	GNE	0.02	[Pattern: Small triangles]	-	TILE: dark grey, 15mm.	-	-	blows per 100mm 0 20 40	34
	0.05			-		BEDDING LAYER: stabilised sand, grey.	-	-			
2	Hand Auger	Nil	GNE	0.20	[Pattern: Cross-hatch]	-	CONCRETE: grey, mixed aggregates up to 20mm 0.15m, steel reinforcement.	M	MD	DCP @ 0.3m: Refusal	7
				0.65		-	FILL: Silty GRAVEL: dark brown, fine to coarse, sub-angular to sub-rounded (ironstone), trace sand (fill). 0.2-0.22m, rootlets. 0.35m, becoming brown.	w < PL	H		
1				0.90	[Pattern: Diagonal lines]	CH	Gravelly CLAY: brown, low to medium plasticity, fine to coarse sub-angular to sub-rounded gravel (ironstone), trace sand (fill). 0.85m, becoming red-brown.			DCP @ 0.9m: Refusal	21
						End of Borehole at 0.9 metres. Refusal.			34		

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GEO BOREHOLE DCP ASI726 2017 21-28380 CRONULLACENTRE_STG2.GPJ GHD_TEMPLATE 2.00.GDT 2/8/19

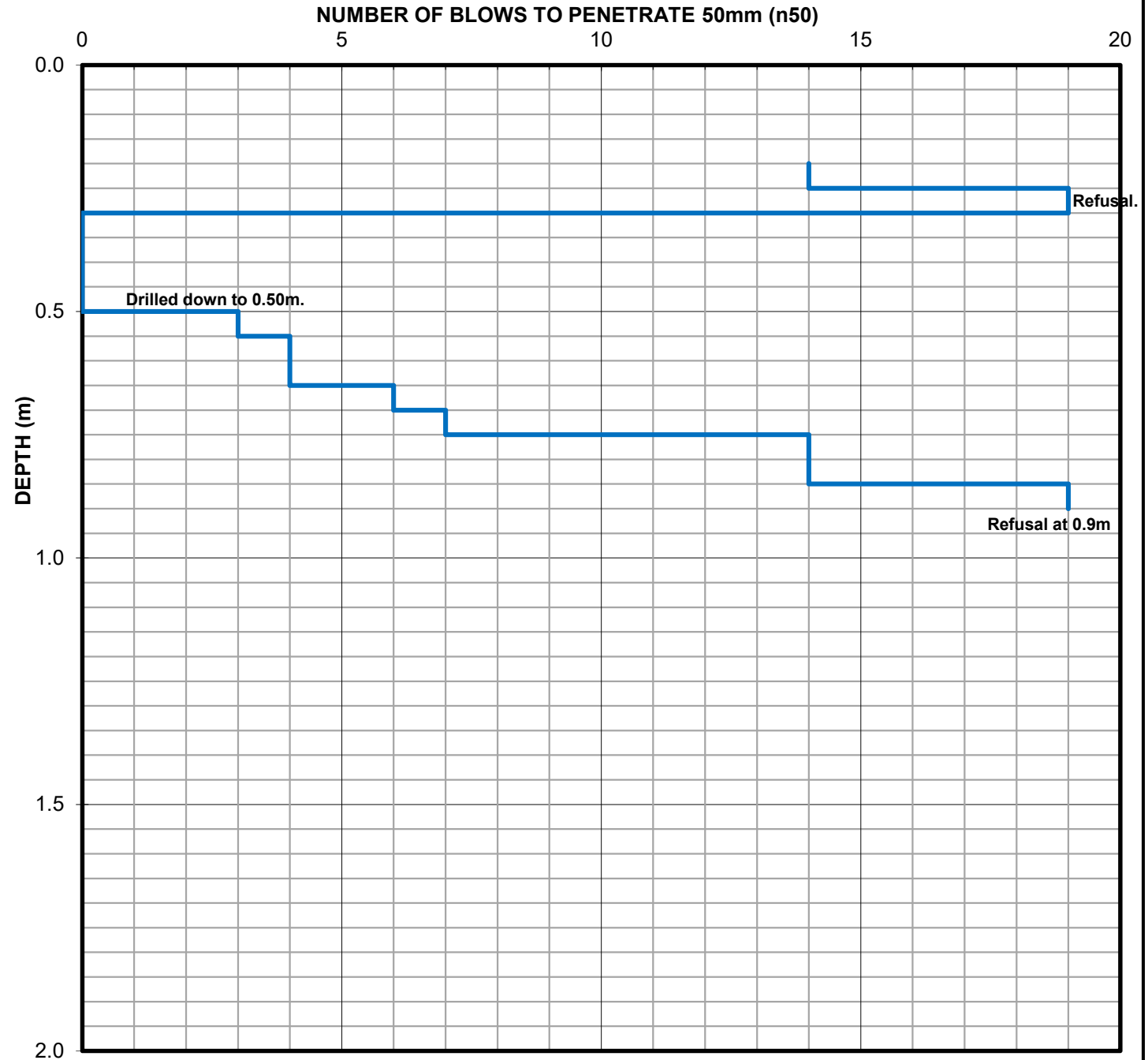
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
 Project: Cronulla Town Centre Design Stage 2
 Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP26

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 02/07/19
Adjacent Test Hole / Pit: BH26		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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2128380

BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH28

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** SBO
Rig Type : 150mm Diatube **Mounting:** Stand **Contractor :** Diacore **Driller :** Noah **Checked :** ICC
Date Started : 2/7/2019 **Date Completed :** 2/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL				DCP			Comments/ Observations
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	DCP Test Results	
0 20 40	Diatube	Nil	GNE	ES/ DS	0.04		-	CONCRETE (TILE): dark grey, 42mm.	-	-	blows per 100mm 0 20 40	10
					0.12		-	BEDDING LAYER: stabilised sand, grey.	-	-		
					0.31		-	CONCRETE: dark grey, mixed aggregates up to 20mm. 0.24m, steel reinforcement.	-	-		
					0.50		-	FILL: Gravelly SAND: brown, fine to medium grained, fine to coarse sub-rounded to sub-angular gravel (predominantly basalt), trace debris (glass), trace rootlets (fill). 0.4m, with roots, medium to coarse, sub-rounded to sub-angular gravel (basalt and sandstone). End of Borehole at 0.5 metres. Refusal.	M	D		
	Hand Auger											

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GEO BOREHOLE DCP ASI726 2017 21-28380 CRONULLACENTRE_STG2.GPJ GHD_TEMPLATE 2.00.GDT 2/8/19

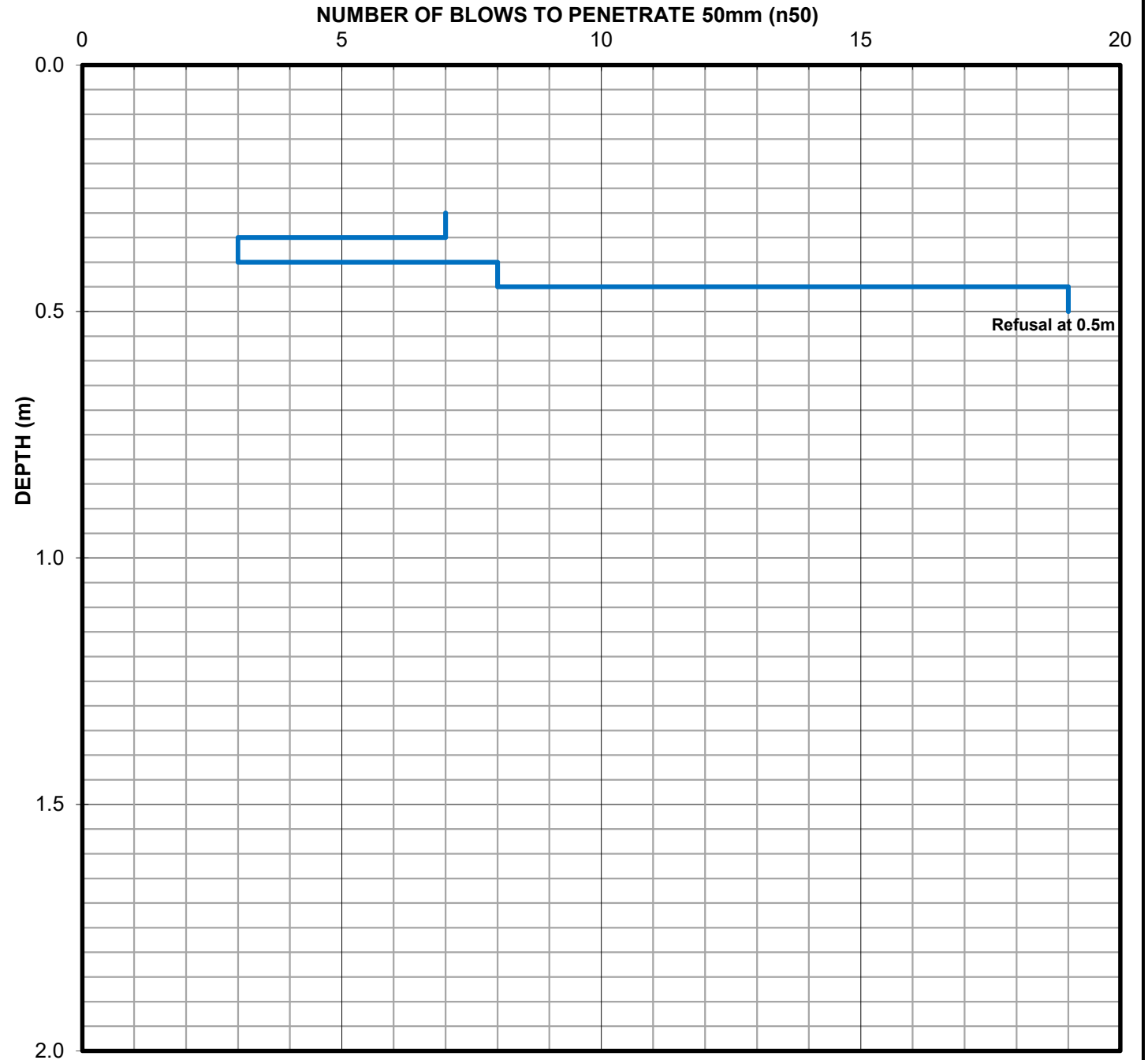
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
 Project: Cronulla Town Centre Design Stage 2
 Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP28

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 02/07/19
Adjacent Test Hole / Pit: BH28		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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Job No.

2128380



TP: BH 28

DEPTH: 0.00 - 0.31m

CLIENT: Sutherlands Shire Council

PROJECT: Cronulla Town Centre Design GI

PROJECT NUMBER: 21 / 28380 /

LOCATION: Cronulla Town Center

DATE: 2/7/19



BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH29

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** SBO
Rig Type : 150mm Diatube **Mounting:** Stand **Contractor :** Diacore **Driller :** Noah **Checked :** ICC
Date Started : 2/7/2019 **Date Completed :** 2/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL				DCP			Comments/ Observations
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	DCP Test Results	
1	Diatube	Nil	GNE	ES/ DS	0.05		-	CONCRETE (TILE): dark grey, 50-55mm.	-	-	blows per 100mm 0 20 40	11
	0.11					-	BEDDING LAYER: stabilised sand, beige.	-	-			
2	Hand Auger	Nil	GNE	ES/ DS	0.27		-	CONCRETE: dark grey, mixed aggregates up to 20mm. 0.24m, steel reinforcement.	M	MD-D	DCP @ 0.6m: Refusal	16 20
	0.65						FILL: Gravelly SAND: brown, fine to medium grained, medium sub-rounded to sub-angular gravel (predominantly basalt), trace rootlets, trace clay (fill).					
					0.65			End of Borehole at 0.65 metres. Refusal.				

See standard sheets for details of abbreviations & basis of descriptions



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GEO BOREHOLE DCP ASI726 2017 21-28380 CRONULLACENTRE_STG2.GPJ GHD_TEMPLATE 2.00.GDT 2/8/19

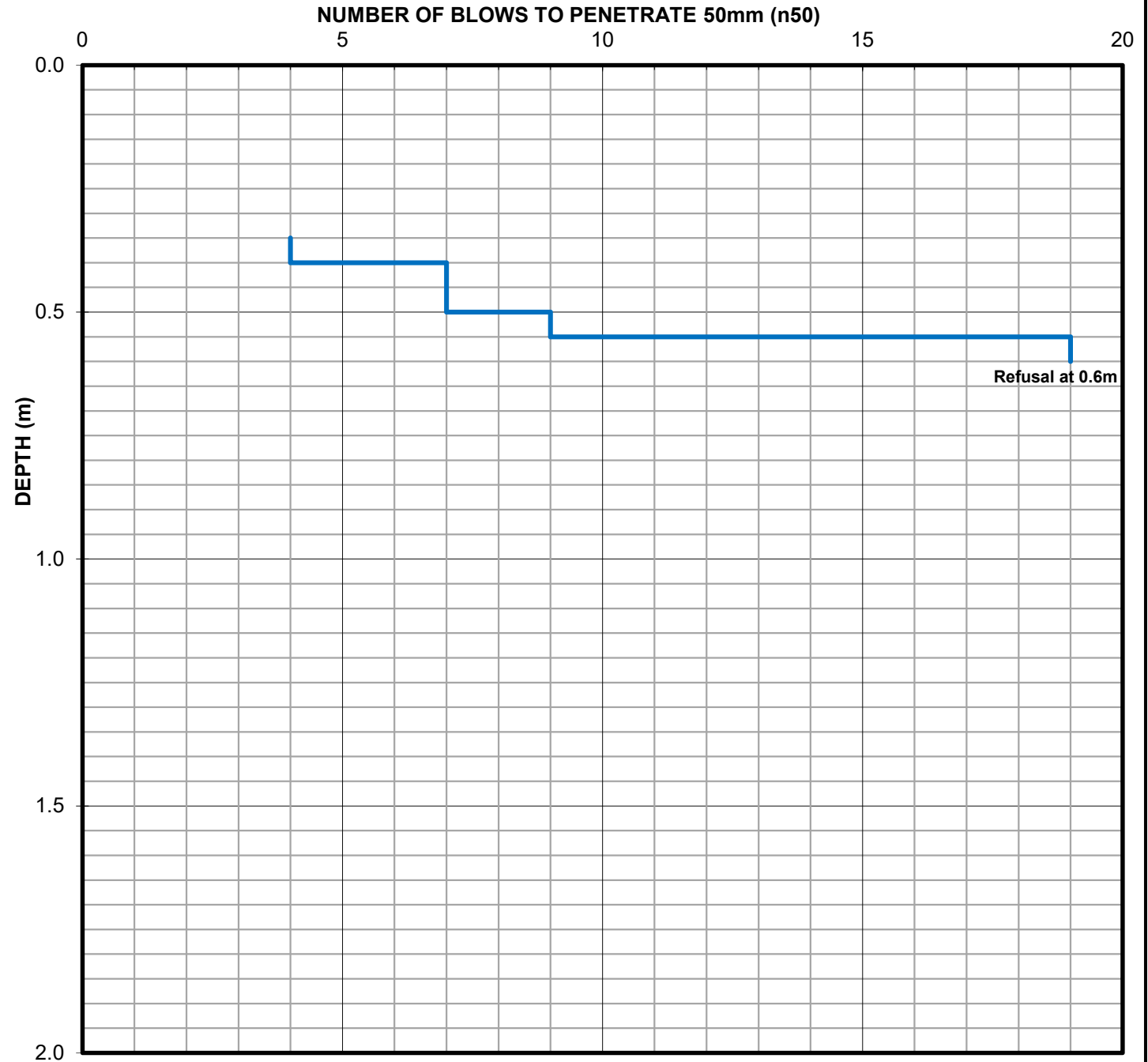
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
 Project: Cronulla Town Centre Design Stage 2
 Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP29

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 02/07/19
Adjacent Test Hole / Pit: BH29		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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Job No.
2128380



TP: BH 29

DEPTH: 0.00 - 0.28m

CLIENT: Sutherlands Shire Council

PROJECT: Cronulla Town Centre Design GI

PROJECT NUMBER: 21 / 28380 /

LOCATION: Cronulla Town Center

DATE: 2/7/19



BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH30

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** MAG
Rig Type : 150mm Diatube **Mounting:** Stand **Contractor :** Diacore **Driller :** Noah **Checked :** ICC
Date Started : 2/7/2019 **Date Completed :** 2/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL				DCP			Comments/ Observations	
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	DCP Test Results		Recorded Blows
1	Diatube	Nil	GNE	ES/ DS	0.02		-	TILE: white, 15mm.	-	-	blows per 100mm 0 20 40	14	
	0.04					-	BEDDING LAYER: stabilised sand, grey.	-	-				
2	Hand Auger	Nil	GNE	ES/ DS	0.16		-	CONCRETE: grey, mixed aggregates up to 20mm. 0.11m, steel reinforcement.	M	D	blows per 100mm 0 20 40	15	
	0.45					-	FILL: Gravelly SAND: brown, fine to coarse grained sand, fine to coarse sub-rounded to sub-angular gravel (basalt and sandstone), trace rootlets (fill). 0.45m, with cobbles (sandstone). End of Borehole at 0.45 metres. Refusal.						
												DCP @ 0.5m: Refusal	32

See standard sheets for details of abbreviations & basis of descriptions



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GEO BOREHOLE DCP ASI726 2017 21-28380 CRONULLACENTRE STG2.GPJ GHD TEMPLATE 2.00.GDT 2/8/19

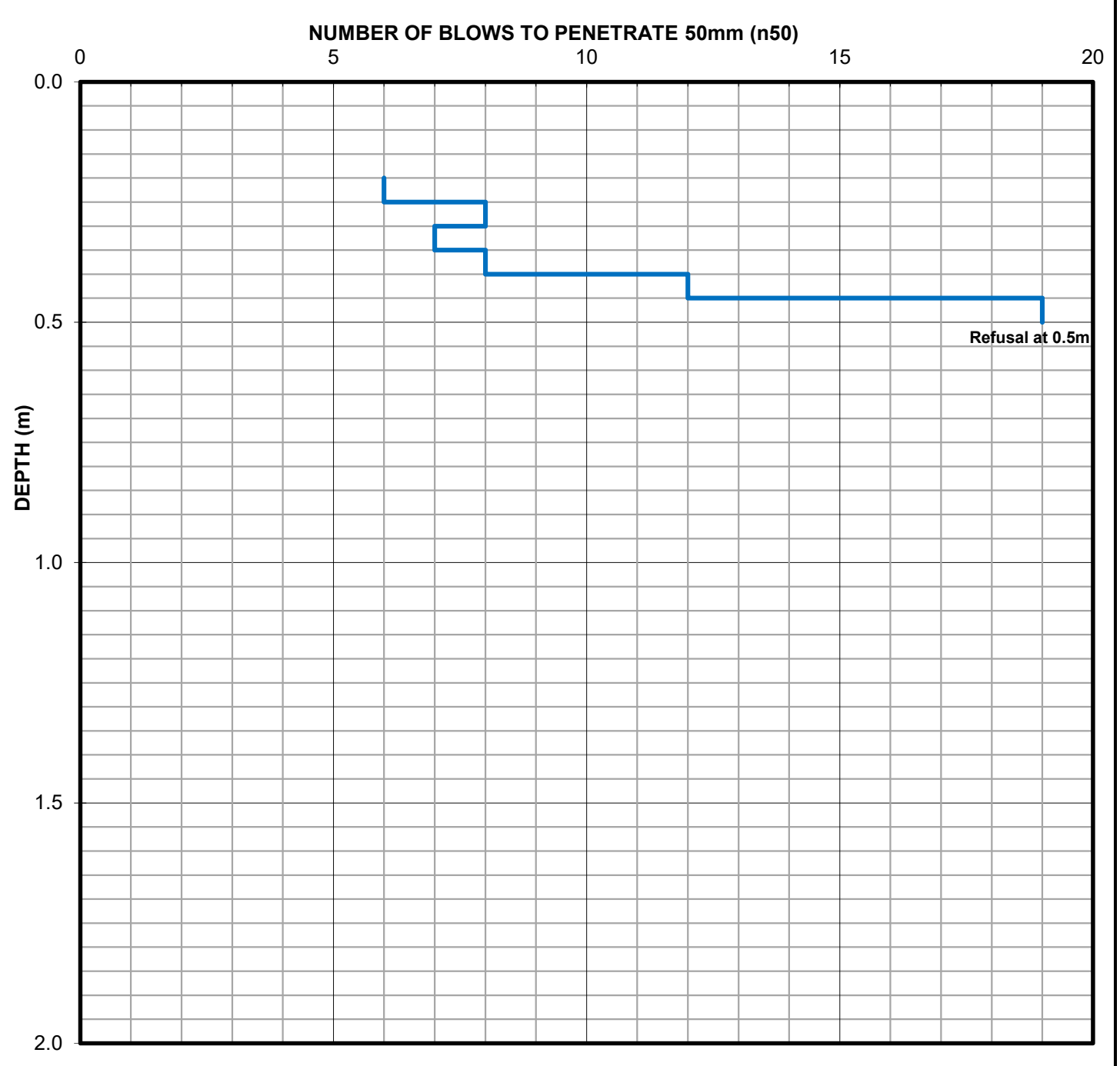
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
 Project: Cronulla Town Centre Design Stage 2
 Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP30

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 02/07/19
Adjacent Test Hole / Pit: BH30		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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Job No.
2128380



TP: BH30

DEPTH: 0.00 - 0.18m

CLIENT: Sutherlands Shire Council

PROJECT: Cronulla Town Centre Design GI

PROJECT NUMBER: 21 / 28380 /

LOCATION: Cronulla Town Center

DATE: 2/7/19



BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH31

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** MAG
Rig Type : 150mm Diatube **Mounting:** Stand **Contractor :** Diacore **Driller :** Noah **Checked :** ICC
Date Started : 2/7/2019 **Date Completed :** 2/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL				DCP			Comments/ Observations		
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	DCP Test Results			
								[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects			blows per 100mm		Recorded Blows	
											0	20		40
	Diatube + Hand Auger	Nil	GNE	DS	0.02		-	TILE: white, 20mm.	-	-				
					0.05		-	BEDDING LAYER: stabilised sand, grey.	-	-				
					0.17		-	CONCRETE: grey, mixed aggregates up to 20mm. 0.15m: becoming dark grey.	M	D				20
					0.30		-	FILL: Sandy GRAVEL: dark grey, fine to coarse, sub-angular, fine to coarse grained sand, with roots (fill).	-	-				
					0.36		-	CONCRETE: dark grey, aggregates up to 20mm. End of Borehole at 0.36 metres. Refusal.						

See standard sheets for details of abbreviations & basis of descriptions



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GEO BOREHOLE DCP AS1726 2017 21-28380 CRONULLACENTRE_STG2.GPJ GHD GEO_TEMPLATE 2.00.GDT 2/8/19

1

2

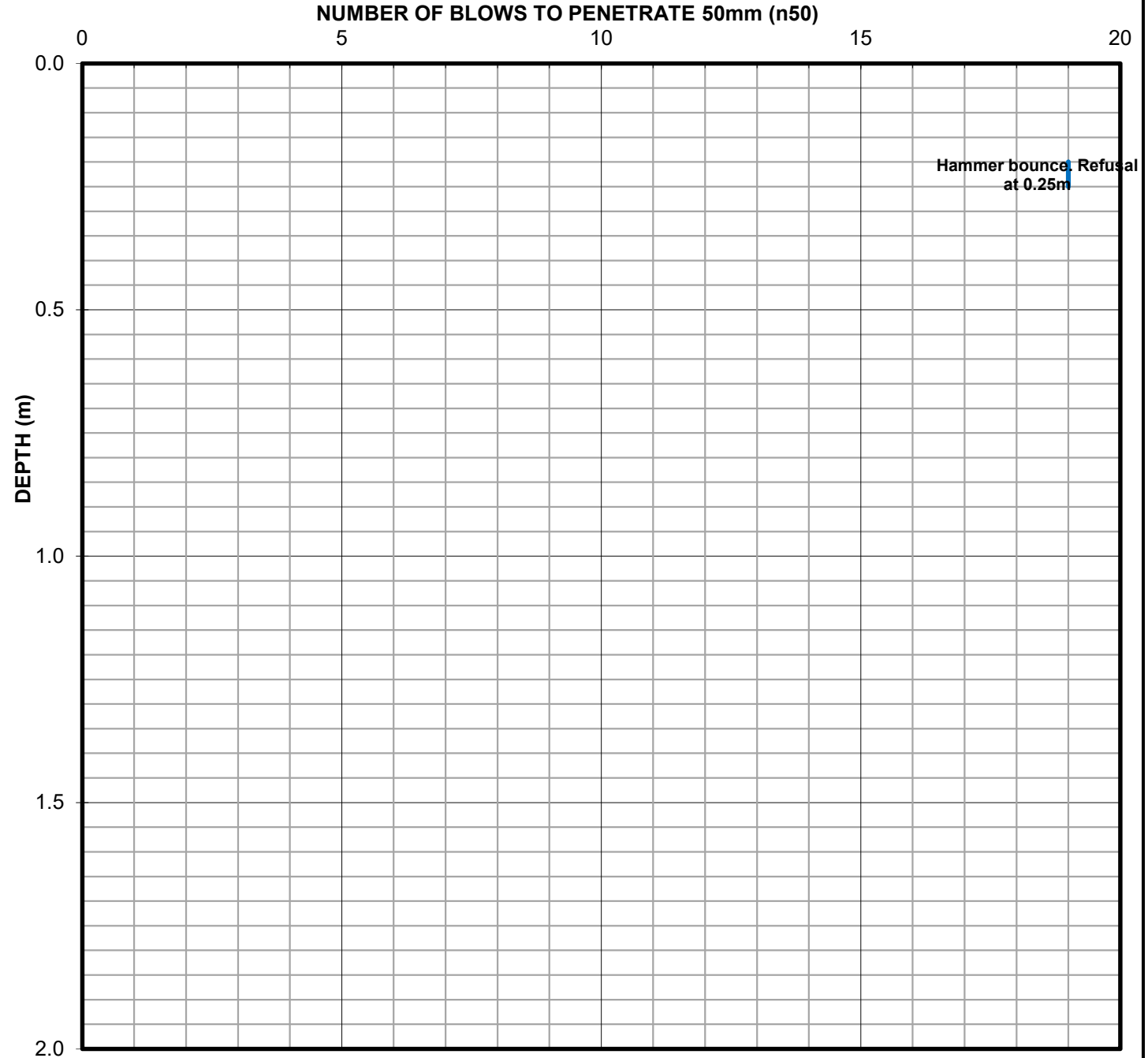
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
Project: Cronulla Town Centre Design Stage 2
Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP31

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 02/07/19
Adjacent Test Hole / Pit: BH31		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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TP: BH31

DEPTH: 0.00 - 0.36m

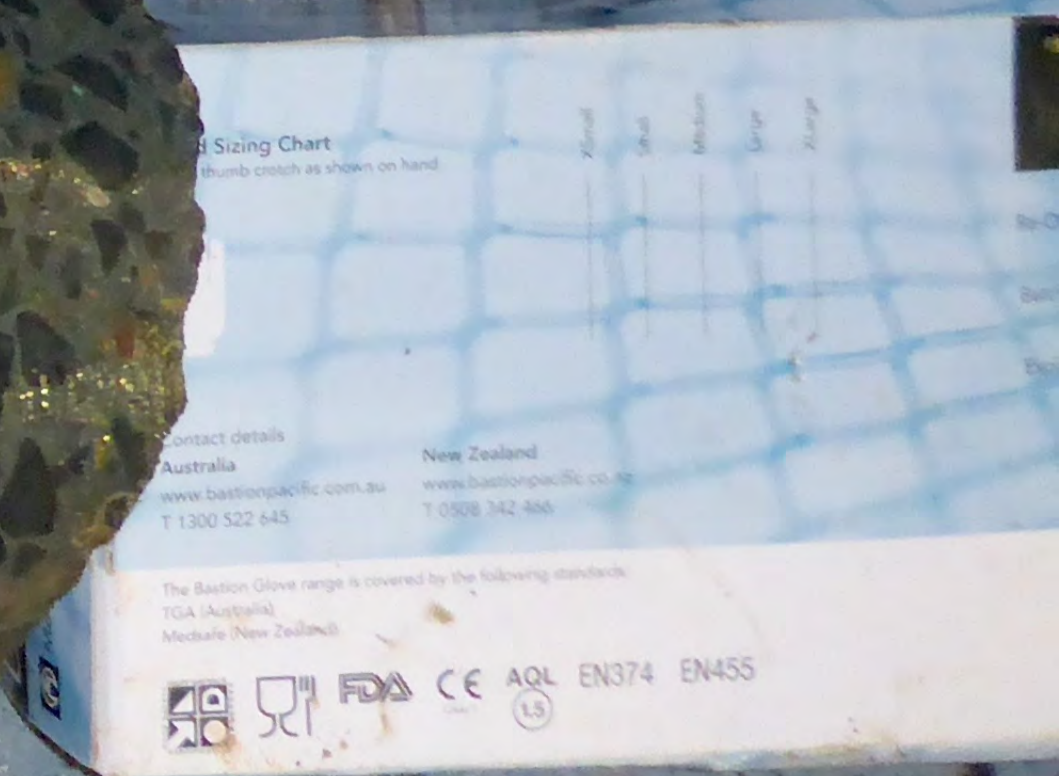
CLIENT: Sutherland Shire Council

PROJECT: Cronulla Town Centre Design

PROJECT NUMBER: 21 / 28380

LOCATION: Cronulla Town Center

DATE: 3/7/19



BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH32

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** MAG
Rig Type : 150mm Diatube **Mounting:** Stand **Contractor :** Diacore **Driller :** Noah **Checked :** ICC
Date Started : 2/7/2019 **Date Completed :** 2/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL				DCP			Comments/ Observations		
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	DCP Test Results		Recorded Blows	
1	Hand Auger	Diatube	Nil	GNE	0.01		-	TILE: white, 15mm.	-	-	blows per 100mm	0	20	40
					0.04		-	BEDDING LAYER: stabilised sand, grey.	-	-				
2	Hand Auger	Diatube	Nil	GNE	0.22		-	CONCRETE: grey, mixed aggregate up to 20mm.	M	D	blows per 100mm	0	20	40
					0.22		-	0.2m, steel reinforcement.						
					0.35		-	FILL: Gravelly SAND: brown, fine to coarse grained sand, fine to coarse sub-rounded to sub-angular gravel (sandstone), trace silt (fill). 0.22-0.24m, trace roots and rootlets. End of Borehole at 0.35 metres. Refusal.			DCP @ 0.4m: Refusal			

See standard sheets for details of abbreviations & basis of descriptions



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GEO BOREHOLE DCP ASI726 2017 21-28380 CRONULLACENTRE_STG2.GPJ GHD GEO_TEMPLATE 2.00.GDT 2/8/19

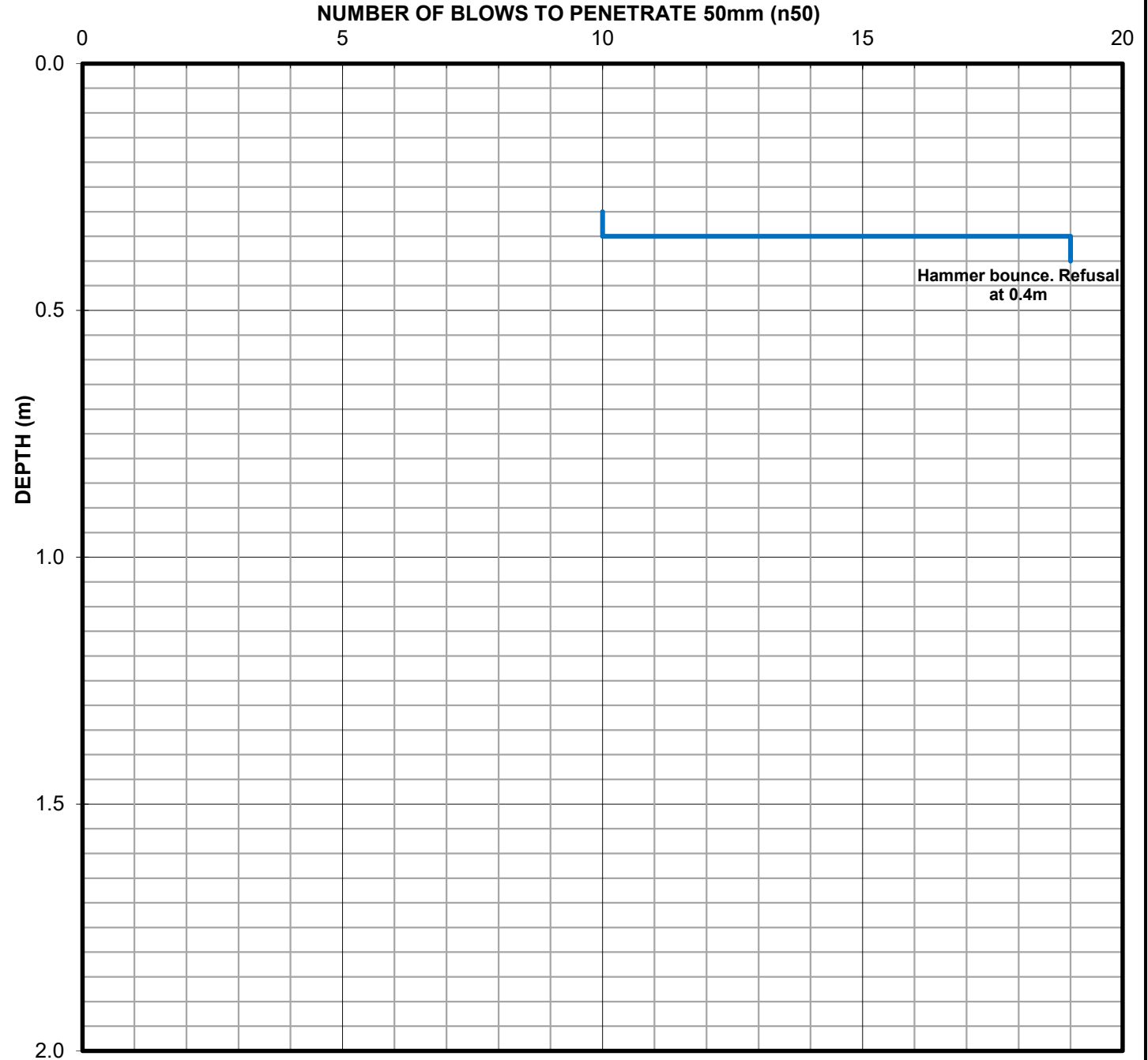
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
 Project: Cronulla Town Centre Design Stage 2
 Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP32

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 02/07/19
Adjacent Test Hole / Pit: BH32		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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GHD GEOTECHNICS

Job No.
2128380



TP: BH32

DEPTH: 0.00 - 0.22m

CLIENT: Sutherlands Shire Council

PROJECT: Cronulla Town Centre Design GI

PROJECT NUMBER: 21 / 28380 /

LOCATION: Cronulla Town Center

DATE: 2/7/19



BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH33

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** MAG
Rig Type : 150mm Diatube **Mounting:** Stand **Contractor :** Diacore **Driller :** Noah **Checked :** ICC
Date Started : 2/7/2019 **Date Completed :** 2/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

Note: * indicates signatures on original issue of log or last revision of log

DRILLING				MATERIAL				DCP				Comments/ Observations
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	DCP Test Results	Recorded Blows	
1	Diatube	Nil	GNE	0.02		-	TILE: white, 15mm.	-	-	blows per 100mm	0 20 40	20
	Hand Auger			ES/ DS		0.05	-	BEDDING LAYER: stabilised sand, grey.	-			
				0.21		-	CONCRETE: grey, mixed aggregates up to 20mm. 0.16m, steel reinforcement.	M	D			15
			DS			-	FILL: Silty GRAVEL: dark brown, fine to medium, sub-rounded to sub-angular gravel (igneous), trace sand (fill). 0.21-0.26m, with roots and rootlets. 0.35m, becoming brown.					16
			DS			CH	Gravelly CLAY: reddish-brown, medium plasticity, fine to coarse sub-angular to angular gravel, with sand (residual). 1.0m, trace roots.	w < PL	H			17
			DS	0.85								18
				1.10			End of Borehole at 1.1 metres. Refusal.					

See standard sheets for details of abbreviations & basis of descriptions



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21-28380

GEO BOREHOLE DCP AS1726 2017 21-28380 CRONULLACENTRE_STG2.GPJ GHD GEO TEMPLATE 2.00.GDT 2/8/19

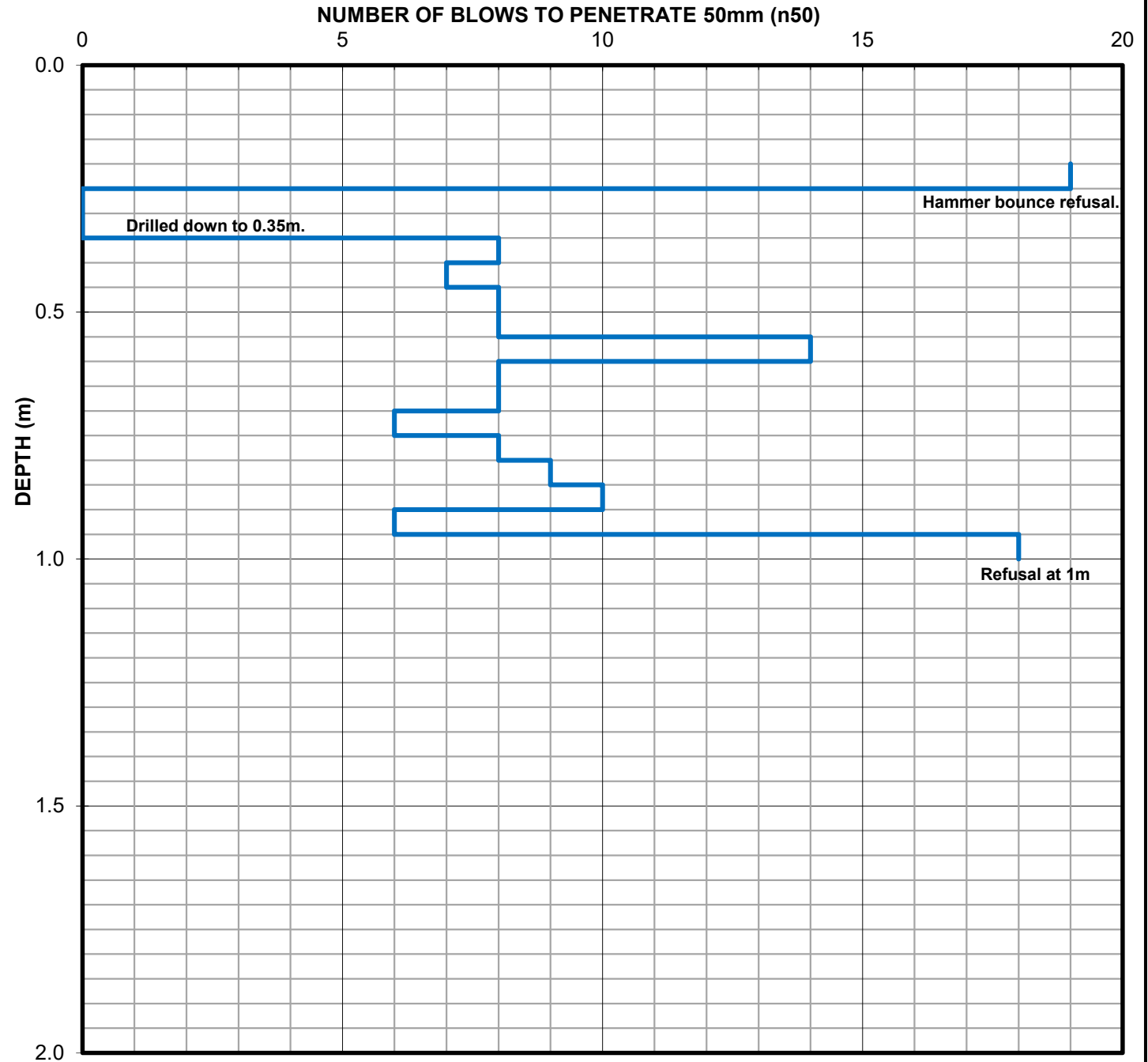
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
 Project: Cronulla Town Centre Design Stage 2
 Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP33

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 02/07/19
Adjacent Test Hole / Pit: BH33		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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GHD GEOTECHNICS

Job No.
2128380



TP: BH33

DEPTH: 0.00 - 0.21 m

CLIENT: Sutherland Shire Council

PROJECT: Cronulla Town Centre Design GI

PROJECT NUMBER: 21 / 28380 / _____

LOCATION: Cronulla Town Center

DATE: 2/7/19



BOREHOLE LOG SHEET

Client : Sutherland Shire Council
Project : Cronulla Town Centre - Design Stage 2
Location : Cronulla Mall, Cronulla NSW

HOLE No. BH34

SHEET 1 OF 1

Position : Refer to test location plan **Surface RL:** - **Angle from Horiz. :** 90° **Processed :** MAG
Rig Type : 150mm Diatube **Mounting:** Stand **Contractor :** Diacore **Driller :** Noah **Checked :** ICC
Date Started : 2/7/2019 **Date Completed :** 2/7/2019 **Logged by :** LCD/MG **Date:** 1/8/19

Note: * indicates signatures on original issue of log or last revision of log

DRILLING				MATERIAL				DCP			Comments/ Observations
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	DCP Test Results	
1	Diatube	Nil	GNE	0.01		-	TILE: white, 15mm.	-	-	blows per 100mm 0 20 40	9
	Hand Auger			0.05		-	BEDDING LAYER: stabilised sand, grey.	-	-		
Hand Auger		ES/ DS/ QCI		0.25	CI	Gravelly CLAY: brown, medium plasticity, fine to coarse sub-rounded to sub-angular gravel (ironstone), with roots and rootlets, trace sand, trace silt (residual).	w = PL	H	24	23	20
	0.75				End of Borehole at 0.75 metres. Refusal.			DCP @ 0.8m: Refusal			
2											

See standard sheets for details of abbreviations & basis of descriptions



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Job No.
21-28380

GEO BOREHOLE DCP ASI726 2017 21-28380 CRONULLACENTRE STG2.GPJ GHD GEO_TEMPLATE 2.00.GDT 2/8/19

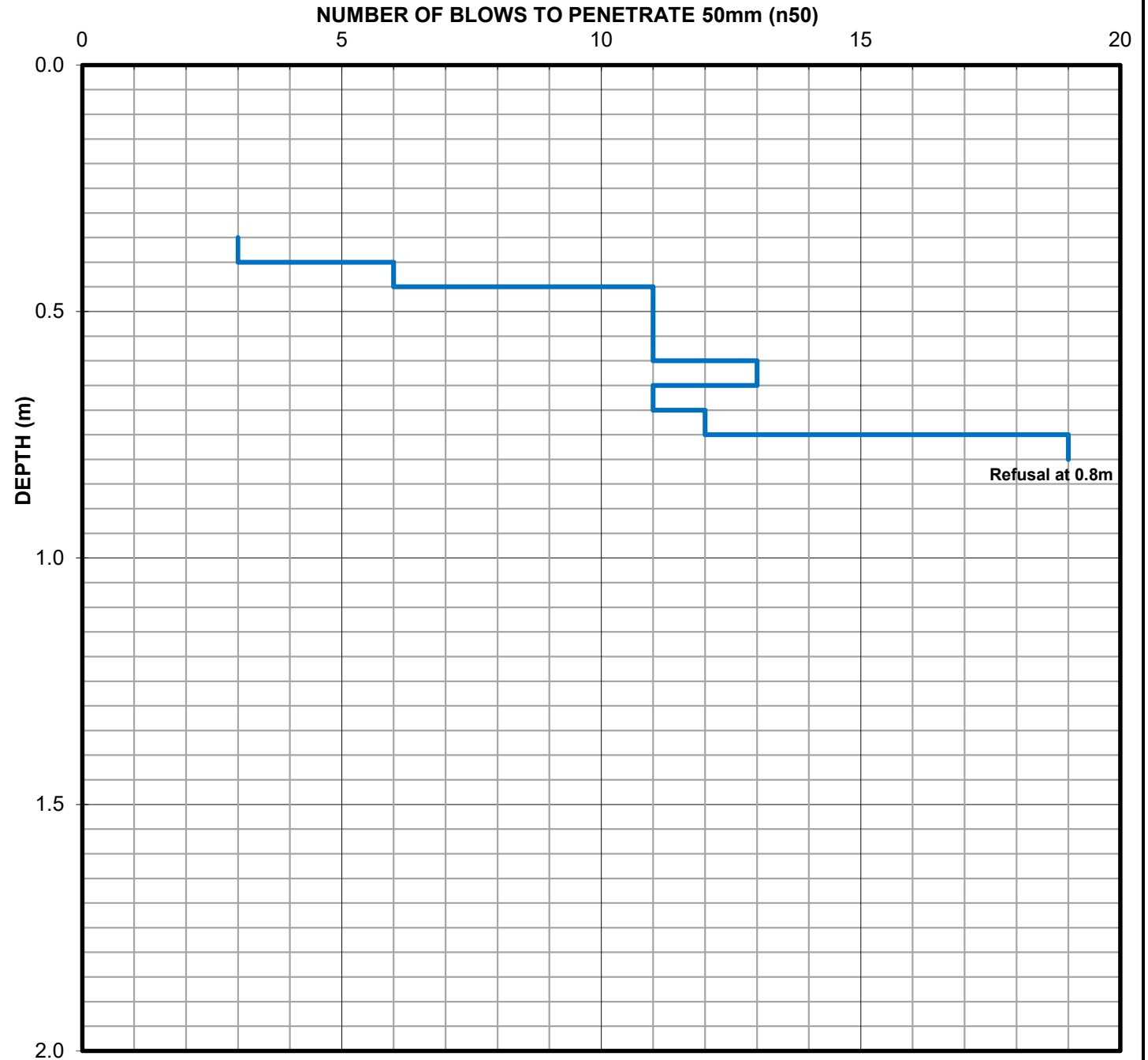
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Sutherland Shire Council
 Project: Cronulla Town Centre Design Stage 2
 Location: Cronulla Mall, Cronulla, NSW

PROBE: DCP34

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position:	Chainage: N/A	Operator: LCD/MG
Elevation:	Offset: Refer Test Location Plan	Date: 02/07/19
Adjacent Test Hole / Pit: BH34		Checked: ICC
Position Relative to Test Hole / Pit: On location		Date: 11/07/19



Comments:



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Job No.
2128380



TP: BH34

DEPTH: 0.00-0.25m

CLIENT: Sutherlands Shire Council

PROJECT: Cronulla Town Centre Design GI

PROJECT NUMBER: 21 / 28380 /

LOCATION: Cronulla Town Center

DATE: 2/7/19



Appendix E

Summary of laboratory results



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→ **The Power of Commitment**