CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 73.6 AHD

EASTING: PROJECT No: 72138 **NORTHING: DATE:** 20/12/2010 SHEET 1 OF 2

BORE No: 104

DIP/AZIMUTH: 90°/--

S (m		1	일 Strength 등						n Situ Testing
	·	Weathering	Craphic Log	Spacing (m) 997	B - Bedding J - Joint S - Shear F - Fault	Туре	Core Rec. %	RQD %	Test Results & Comments
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.05 ASPHALT - 50mm thick 0.3 FILLING - roadbase gravel filling SANDSTONE - extremely low strength, red grey sandstone with clay				Note: Unless otherwise stated, rock is fractured along rough planar bedding planes dipping between 0°- 10°	A/E A/E A/E			10,16,21 N = 37
2 2 3	2.1 SANDSTONE - medium to high strength, highly and moderately weathered, fractured, grey and purple red, medium to coarse grained sandstone with distinct laminations 3.1 SANDSTONE - medium to high strength, highly and moderately weathered, fractured then slightly fractured, grey and purple red, medium to coarse grained sandstone SANDSTONE - high strength,				3.45m: Cs, 9mm	С	100	71	PL(A) = 0.9 PL(A) = 1.9 PL(A) = 1.3
69	highly and slightly weathered then fresh, slightly fractured and unbroken, red purple then light grey, medium to coarse sandstone								PL(A) = 1.5 PL(A) = 1.4 PL(A) = 1
-6	- siltstone laminations from 5.7m to 7.4m				5.68m: Cs, 20mm	С	100	91	` ,
7	6.55-6.6m: very low strength, black carbonaceous band 7.30-7.35m: very low strength,				6.65m: J85°, pl, ro, fe				PL(A) = 1 PL(A) = 0.1

RIG: DT 100 DRILLER: SS LOGGED: PGH CASING:

TYPE OF BORING: Solid flight auger (TC-bit) to 1.0m; Rotary (water) to 1.5m; NMLC-Coring to 14.70m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

-양-

-8

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

SAMPLING & IN SITU TESTING LEGEND

G Gas sample Piston sample PL(A) Point load axial test Is(50) (MPa) PL(D) Point load diametral test Is(50) (MPa) PL(D) PO

SURVEY DATUM:

PL(A) = 1

PL(A) = 1.4

100 98

7.72m; J82°, pl, ro, cln



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 73.6 AHD

EASTING: PROJECT No: 72138

NORTHING: DATE: 20/12/2010 **DIP/AZIMUTH:** 90°/-- **SHEET** 2 OF 2

BORE No: 104

		Description	Degree of Weathering:	ဋ	Rock Strength		Fracture	Discontinuities				In Situ Testing
R	Dep (m)	of		흔희	Strength Very Low High Very High Kry Hi	Wate	Spacing (m)	B - Bedding J - Joint	Type	o o	RQD %	Test Results &
-		SANDSTONE - high strength,	W H W S E E				00.10	S - Shear F - Fault	F	0 %	~	Comments
62 63	11	highly and slightly weathered then fresh, slightly fractured and unbroken, red purple then light grey, medium to coarse sandstone (continued)							С	100	99	PL(A) = 1.1 PL(A) = 2.2
- 61		12.72-12.74m: very low strength,				li						DI (A) = 0.0
-	- 13	laminite band				ļ						PL(A) = 3.2
59 60	-14	4.7							С	100	100	PL(A) = 2.2
		Bore discontinued at 14.7m										
	- 15					**************************************						
	- - 17					li.						
56	- - - - - -											
	- 18											
54 55	-19					*****						

RIG: DT 100 DRILLER: SS LOGGED: PGH CASING:

TYPE OF BORING: Solid flight auger (TC-bit) to 1.0m; Rotary (water) to 1.5m; NMLC-Coring to 14.70m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

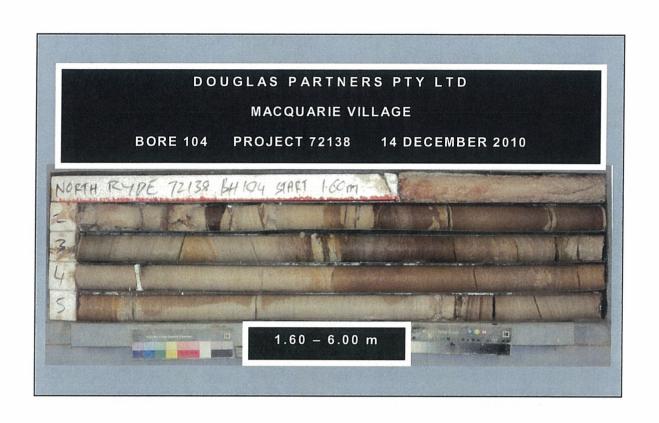
SAMPLING & IN SITU TESTING LEGEND

Auger sample
B Bulk sample
B Bulk Stample
C Core drilling
C Core drilling
D Disturbed sample
E Environmental sample

SAMPLING & IN SITU ITESTING
G Gas sample
P Piston sample
Tube sample
V Water sample
W Water sample
W Water seep
E Environmental sample
W Water level

LEGEND
PID Photo ionisation detector (ppm)
PL(A) Point load axial test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
pp Pocket penetrometer (kPa)
S Standard penetration test
V Shear vane (kPa)









CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 73.9 AHD

BORE No: 105

EASTING:	PROJECT No: 72138
NORTHING:	DATE: 14/12/2010
DIP/AZIMUTH: 90°/	SHEET 1 OF 2

	Danath	Description	Degree of Weathering	je Lic	Rock Strength	Fracture Spacing	Discontinuities	Sa			In Situ Testing
귙	Depth (m)	of Strata	Degree of Weathering	Graph	Wafe	(m)	B - Bedding J - Joint S - Shear F - Fault	Type	Sore %	RQD %	Test Results &
	0.04	ASPHALT FILLING - crushed sandstone gravel filling with some sand	H H W H W H F S N N N N N N N N N N N N N N N N N N	X	Strength Redim Nate Nate	0.05	Note: Unless otherwise stated, rock is fractured along rough planar	A/E A/E	1		Comments
73	- - - -1 1.0	CLAY - red and grey clay SHALY CLAY - hard, grey shaly					bedding planes dipping between 0°- 10°	A/E			
72	-2	clay with some high strength ironstone bands									
7, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	2.44 -3	LAMINITE - high strength, highly to slightly weathered, slightly fractured, light grey and red, medium to coarse grained sandstone						С	100	51	PL(A) = 1.5 PL(A) = 1.6
70	3.6	SANDSTONE - high strength, slightly weathered and fresh, slightly fractured, light grey,					3.45m: Cs, 10mm				PL(A) = 1.6
69	- 5	medium to coarse grained 'sandstone									PL(A) = 1.3
89	-6						6.18m: Ds, 10mm	С	100	93	PL(A) = 1.5
67	7	- siltstone laminations from 6.7m to 7.8m					6.43m: Cs, 10mm				PL(A) = 1.4
99	8										PL(A) = 2.7
55	9							С	100	100	PL(A) = 1.5
64											PL(A) = 3

DRILLER: RKE LOGGED: PGH CASING: HW to 1.0m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.0m; NMLC-Coring to 15.0m WATER OBSERVATIONS: No free groundwater observed whilst augering **REMARKS:**

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

SAMPLING & IN SITU TESTING LEGEND

G G Gas sample Piston sample Piston sample PlD Photo ionisation detector (ppm) PL(A) Point load axial test Is(50) (MPa) PL(D) Point load diametral test Is(50) (MPa) Pocket penetrometer (KPa) S Standard penetration test Water level V Shear vane (KPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 73.9 AHD

BORE No: 105 EASTING: PROJECT No: 72138

NORTHING: DATE: 14/12/2010 DIP/AZIMUTH: 90°/--SHEET 2 OF 2

		Description	Degree of Weathering :≅	Rock Strength	Fracture	Discontinuities	Sa	mpli	ng &	In Situ Testing
꿉	Depth (m)	of Strata	Degree of Weathering Was & E. S.	Ex Low	Spacing (m)	B - Bedding J - Joint S - Shear F - Fault	Type	Core Rec. %	RQD %	Test Results & Comments
62 63	-11	SANDSTONE - high strength, slightly weathered and fresh, slightly fractured, light grey, medium to coarse grained sandstone (continued)			0.00	11.26m: J45°, pl, ro, cly	С	100		PL(A) = 1.7 PL(A) = 1.6
51										PL(A) = 1.6
	-14					13.18m: Cs, 3mm	С	100	100	PL(A) = 2
	- - -15 15.0	Bore discontinued at 15.0m								PL(A) = 1.9
	-16									
57	-17									
28	-18									
54 55	-19									

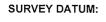
DRILLER: RKE LOGGED: PGH CASING: HW to 1.0m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.0m; NMLC-Coring to 15.0m WATER OBSERVATIONS: No free groundwater observed whilst augering **REMARKS:**

SAMPLING & IN SITU TESTING LEGEND

LING & IN SITU LC....
G Gas sample
P Piston sample (x mm dia.)
U, Tube sample (x mm dia.)
W Water sample
D Water seep
Water seep A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

PID Photo ionisation detector (ppm)
PL(A) Point load axial test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
p Pocket penetrometer (kPa)
S Standard penetration test
V Shear vane (kPa)











CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 73.2 AHD

EASTING: NORTHING:

DIP/AZIMUTH: 90°/--

BORE No: 106 PROJECT No: 72138 **DATE:** 16/12/2010 SHEET 1 OF 2

	Doub	Description	Degree of Weathering		Rock Strength	Fracture Spacing	Discontinuities	Sa			In Situ Testing
귐	Depth (m)	of Strata	Degree of Weathering	Grapl	Very Low	(m)	B - Bedding J - Joint S - Shear F - Fault	Type	Core Sec. %	RQD %	Test Results & Comments
-22	0.05	\ASPHALT / \FILLING - crushed sandstone filling		XX			Note: Unless otherwise	A/E	1		Comments
	• • •	with some sand CLAY - red grey clay					stated, rock is fractured along rough planar bedding planes dipping	A/E			
-	0.7	LAMINITE - extremely low strength,					between 0°- 10°	A/E			
-22	-1 1.0 · ·	laminite / LAMINITE - extremely low and very		::::							***************************************
		low strength, extremely and highly weathered, slightly fractured, grey									
	1.88 - 1.88	laminite with clay bands LAMINITE - medium to high									
7		strength, moderately to highly then slightly weathered, slightly									
		fractured, purple-red and grey, medium to coarse grained laminite						С	100	71	PL(A) = 0.8
	-3										
-R							0.00m P4400 ml m mb				PL(A) = 0.9
	3.61	SANDSTONE - high strength,	++#				3.38m: B110°, pl, ro, cly 3.6m: Cz, 10mm				
	- 4	moderately to highly weathered, slightly fractured, purple-red and grey, medium to coarse grained									
-8		sandstone									
											PL(A) = 1.5
- 8	-5										
								С	100	97	PL(A) = 1.2
							5.58m: Cz, 30mm		100	31	
1.0	6										
											PL(A) = 1.5
† † †	6.81	SANDSTONE - medium to high		•			6.77m: Cs, 30mm				
99	1	and high strength, moderately and slightly weathered, slightly fractured, orange and light grey,									PL(A) = 0.7
<u> </u>		medium to coarse grained sandstone with indistinct									
	8	cross-beds									
-8											
[[С	100	100	PL(A) = 1.3
<u> </u>	9										
2											
<u> </u>											PL(A) = 1.3
EE											

RIG: Scout DRILLER: KKE LOGGED: PGH CASING: HW to 1.0m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.0m; NMLC-Coring to 15.0m WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: 30% Water loss at 7.30m

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

LING & IN STID TESTING LEGENU

G Gas sample PID Photo ionisation detector (ppm)
P Piston sample PL(A) Point load axial test Is(50) (MPa)
U, Tube sample (x mm dia.)
W Water sample
Water sample S Standard penetration test
Water level V Shear vane (kPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 73.2 AHD

EASTING:

NORTHING: DIP/AZIMUTH: 90°/-- **BORE No: 106** PROJECT No: 72138 **DATE:** 16/12/2010 SHEET 2 OF 2

		Description	Degree of Weathering ⊖	Rock Strength	Fracture	Discontinuities	Sa			In Situ Testing
RL	Depth (m)	of Strata	Degree of Weathering Dod	Strength Nater Nat	Spacing (m)	B - Bedding J - Joint S - Shear F - Fault	Туре	Sore ec. %	RQD %	Test Results &
63	-11	SANDSTONE - medium to high and high strength, moderately and slightly weathered, slightly fractured, orange and light grey, medium to coarse grained sandstone with indistinct cross-beds (continued)	Wighter Management of the Control of	(157) (157)	0.0000000000000000000000000000000000000	10m: J85°, pl, ro, fe 10.72m: J80°, pl, ro, he 10.87m: J85°, pl, ro, he		2		PL(A) = 1.2
61 62	- 11.45 	SANDSTONE - high strength, slightly weathered and fresh, slightly fractured, light orange and grey, medium to coarse grained sandstone				11.04m: J75°, pl, ro, fe 11.15m: J85°, pl, ro, fe 11.45m: J80°, pl, ro, fe 12.14m: B, cly	С	100	100	PL(A) = 1
99	-13					12.95m: J80°, pl, ro, fe				PL(A) = 1.1
59	-14					13.8m: B, cly	С	100	100	PL(A) = 1
58	-15 15.0-	Bore discontinued at 15.0m					С	100	100	PL(A) = 1
57	-16									
96	-17									
55	18									
54	19									

RIG: Scout DRILLER: KKE LOGGED: PGH CASING: HW to 1.0m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.0m; NMLC-Coring to 15.0m WATER OBSERVATIONS: No free groundwater observed whilst augering

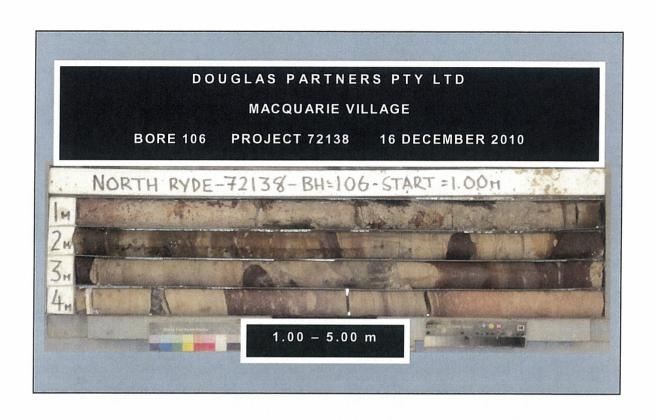
REMARKS: 30% Water loss at 7.30m

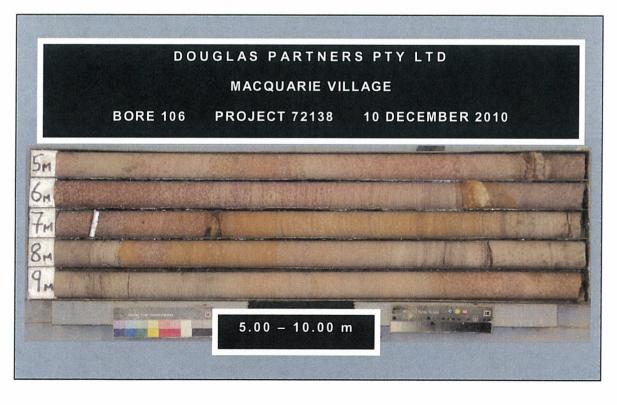
A Auger sample B Bulk sample BLK Block sample Core drilling Disturbed sample Environmental sample

SAMPLING & IN SITU TESTING LEGEND

G Sas sample
P Pilston sample
U, Tube sample (x mm dia.)
W Water sample
e p Water seep
sample
Water level
V Water seep
Water level
V Shear vane (kPa)









CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 74.6 AHD

BORE No: 107 EASTING: PROJECT No: 72138

DATE: 13/12/2010 **NORTHING:**

DIP/AZIMUTH: 90°/--SHEET 1 OF 2

П	Dent	Description	Degree of Weathering	je	Rock Strength	Fracture	Discontinuities	Sa			In Situ Testing
뷥	Depth (m)	of		Srapl	Ex Low Very Low Medium Medium Medium Medium Medium Medium Medium Medium Medium Mater	Spacing (m)	B - Bedding J - Joint	Type	o o	RQD %	Test Results &
ert	0.05	Strata \ASPHALT - 50mm thick /	₩¥₩% ₹ £		Weigh Big	10.0 1.05 1.05 1.05	S - Shear F - Fault	<u> </u>	+	<u> </u>	Comments
74	0.45 0.7	FILLING (ROADBASE) -					Note: Unless otherwise stated, rock is fractured along rough planar	A/E			
	·1	SHALY CLAY - hard, highly weathered, grey shaly clay with					bedding planes dipping 0°- 10°	S/E			9,21,25 N = 46
73	1.6	ironstone bands					1.5m: CORE LOSS: 100mm				
72	1.83	LAMINITE - medium strength with medium to high strength ironstone bands, highly and moderately weathered, fractured and slightly fractured, grey with purple red bands laminite						С	96	90	PL(A) = 0.3
7											PL(A) = 1.5
70	4 4.0-	SANDSTONE - high strength, moderately weathered, slightly fractured, purple red with grey bands, medium grained sandstone with distinct laminations									PL(A) = 1.6
69	6							С	100	95	PL(A) = 1.4
68							6.3m: B10°, pl, ro, fe 6.36m: B10°, pl, ro, fe				PL(A) = 1.6
67	7 7.0	SANDSTONE - high strength, slightly and moderately weathered with some fresh stained zones, slightly fractured, light grey and orange, medium grained sandstone									PL(A) = 1.4
99 69	9						8.41m: B0°, pl, ro, fe	С	100		PL(A) = 2.2
-											PL(A) = 1.5

RIG: Bobcat **DRILLER: SS** LOGGED: PGH CASING: HW to 1.5m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.5m; NMLC-Coring to 16.0m WATER OBSERVATIONS: No free groundwater observed whilst augering REMARKS: 15% Water loss at 8.90m; 90% water loss from 13.0m

| SAMPLING & IN SITU TESTING LEGEND | G | Gas sample | P | Piston sample | PL(A) Point | PL(D) Point LEGEND
PID Photo ionisation detector (ppm)
PL(A) Point load axial test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
pp Pocket penetrometer (kPa)
S Standard penetration test
V Shear vane (kPa) Environmental sample



Stamford Property Services Pty Ltd **CLIENT:**

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 74.6 AHD

EASTING: PROJECT No: 72138 **NORTHING:**

DATE: 13/12/2010 DIP/AZIMUTH: 90°/--SHEET 2 OF 2

BORE No: 107

П		Description	Degree of Weathering	. <u>o</u>	Rock Strength	Fracture	Discontinuities	Sa	ampli	ng &	In Situ Testing
뮙	Depth (m)	of		iraph Log	Ex Low Very Low Os Very Low I wadium High Wadium Very High Ex High Ex High Os Very Low New Very Low Very	Spacing (m)	B - Bedding J - Joint	Type	ore , %	RQD %	Test Results &
Ш			WH W R R R R	Θ	Very Very Very Very Very Very Very Very	0.10	S - Shear F - Fault	15	o š	χ.,	Comments
63 64	-11	SANDSTONE - high strength, slightly and moderately weathered with some fresh stained zones, slightly fractured, light grey and orange, medium grained sandstone (continued)					10.68m: B11°, pl, ro, fe 10.78m: B11°, pl, ro, fe 10.85m: B11°, pl, ro, fe	С	100	98	PL(A) = 1.3 PL(A) = 1.4
62	-12						11.76m: B10°, pl, ro, fe 12.12m: B11°, pl, ro, fe 12.27m: B11°, pl, ro, fe 12.58m: B11°, pl, ro, fe				PL(A) = 1.3
	-13						12.72m: B11°, pl, ro, fe				
61								С	100	98	PL(A) = 1.2
	-14						13.73-14.0m: J85°, pl, ro, fe				
-8	- 15						14.6m: B15°, pl, ro, fe	С	100	100	PL(A) = 1.1
59							15.25m: J45°, pl, ro, fe 15.5m: J70°, pl, ro, he & fe				PL(A) = 1.4
58	-16 16.0	Bore discontinued at 16.0m									
57	17										
56	18										
E	19										

RIG: Bobcat DRILLER: SS LOGGED: PGH CASING: HW to 1.5m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.5m; NMLC-Coring to 16.0m WATER OBSERVATIONS: No free groundwater observed whilst augering REMARKS: 15% Water loss at 8.90m; 90% water loss from 13.0m

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

LEGEND
PID Photo ionisation detector (ppm)
PL(A) Point load axial test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
pp Pocket penetrometer (kPa)
S Standard penetration test
V Shear vane (kPa)

