BLOCK:	5	SECTION:	97	SUBURB:	Denman Prospect
JOB No:	88231.50			DATE:	August 2023
CLIENT:	Capital Esta	ate Developmen	ts Pty Ltd		REV: 0
Classificatio	on Procedur	es:			
			est pit log(s) – F	Pit(s) 1,2 and Drawing 1.	
-				evel 1 control as defined	in AS 3798:2007.
		s laboratory testing shrinkage ranging fro		d liquid limit ranging fro	om 25-80%, plasticity index
magnitude of mo current soil profi the site would be block would be block. Should g drainage measu M* site classifica either by adding	bisture related so le / state, on lime e equivalent to we equivalent to Cla roundwater be res would then be ation indicated a fill or removing	easonal ground move ited subsurface inform corst case Class M* (r uss S* (slightly reactive encountered during a be required to control above. Therefore the soil from the block an	ements that mus mation, soil read moderately read ve/filled) conditio any site cut, Cl- the groundwate the classification nd/or if the pres	t be considered in design tivity and allowing for va- tive/filled) conditions. It m ns due to the shallow ro ass P conditions would seepages to possibly e must be reassessed sh	idance on the patterns and n. Based on the worst case ariation in the subsoil profile, nust be noted that part of the ck in the northern half of the be warranted. Appropriate nable the conventional Class nould the soil profile change or retaining walls are within
for each site class zone of influence be articulated in moisture condition	ssification. All fo e of any service n accordance w ons are maintain	otings must found wit trenches, backfill zon ith current best prac	thin a uniform be nes, retaining wa ctice. Dwelling potings. Footing	earing stratum of suitable Ills or underground struc design must ensure su	systems that are appropriate strength/material, below the tures. Masonry walls should itable drainage and uniform med by a structural engineer
Maintenance & foundation soils	Footing Perform and in particula vitable, and it de	mance' to comment ir in respect to maint	s about garder taining good su	ns, landscaping and tre face drainage. It notes	Sheet BTF 18 'Foundation bes on the performance of that minor cracking in most indation movements that can
Comments/ Limitations:	information				ons and conclusions from the ity for such interpretations,
	Developm	ent specific geotechn	ical investigatior	s must be undertaken.	
		,	•	ubsequent to the investig	5
	Site prepa uncontrolle		Instruction shou	d include removal of all	vegetation, topsoil and any
		must be placed unde varranted in those fill		ditions (AS 3798:2007),	otherwise Class P conditions
		ability in subsurface o		•	
	of investig				v vary considerably from time or seepages are highly likely
		excavation must be a minimal to reduce po			ecommended that excavation
		e site classification is ed from site and have			aterials/waste and stockpiles
		-		nspected by a geotechni	-
	This repor	t must be read in conj	junction with the	attached "Limitations" a	nd notes "About this Report".
References:		011, Residential Slab	-		
	AS 3798:2 Australia.	007, Guidelines on E	arthworks for Co	ommercial and Residenti	al Developments, Standards
Attachment	Explanator	s & About this Report ry Notes g(s) Pit(s) 1,2			
			Dol Geotech	nics   Environn	Partners





#### CLIENT: PROJECT: LOCATION:

Capital Estate Developments Pty Ltd Proposed Residential Subdivision Stage 2 Denman North Estate, Denman Prospect **SURFACE LEVEL:** 569.0 AHD **EASTING:** 201279 **NORTHING:** 602490 PIT No: 1 PROJECT No: 88231.50 DATE: 2/8/2023 SHEET 1 OF 1

		Description	<u>.</u>		San	npling 8	& In Situ Testing					
님	Dep (m	oth	Graphic Log	Type	Depth	Sample	Results &	Water	Dynami (b	c Pene lows p	tromete er mm)	<sup>-</sup> Test
569		Strata	Ū	Tyl	Det	San	Results & Comments	>	5	10	15	20
-	-	TOPSOIL FILL/Sandy SILT (ML): low plasticity, brown, fine to coarse grained sand, trace fine to coarse gravel, dry to moist, w <pl, fill<="" td="" topsoil=""><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td></pl,>						-				
	-	FILL/Sandy CLAY (CL): low plasticity, brown, orange brown, fine to coarse grained sand, with fine to coarse gravel, trace cobbles, dry to moist, w <pl, fill<="" hard,="" td=""><td></td><td>D</td><td>0.5</td><td></td><td>pp &gt;400</td><td>-</td><td>-1</td><td></td><td></td><td></td></pl,>		D	0.5		pp >400	-	-1			
-	-	1.1 Silty CLAY (CI-CH): medium to high plasticity, red brown, with fine to coarse grained sand, trace fine gravel, dry to moist, w <pl, hard,="" residual<="" td=""><td></td><td>D</td><td>1.3</td><td></td><td>pp &gt;400</td><td>-</td><td></td><td></td><td></td><td></td></pl,>		D	1.3		pp >400	-				
-	-	1.5 Pit discontinued at 1.5m -Limit of investigation	_1/1 / 1 /					-				

**RIG:** CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: GM

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** Surface levels and coordinates are approximate only and must not be relied upon.

 SAMPLING & IN SITU TESTING LEGEND

 A
 Auger sample
 G
 Gas sample
 PID
 Photo ionisation detector (ppm)

 B
 Bulk sample
 P
 Piston sample
 PIL(A) Point load axial test Is(50) (MPa)

 BLK Block sample
 U
 Tube sample (x mm dia.)
 PL(D) Point load diametral test Is(50) (MPa)

 C
 Core drilling
 W
 Water sample
 pp
 Pocket penetrometer (KPa)

 D
 Disturbed sample
 V
 Water seep
 S
 Standard penetration test

 E
 Environmental sample
 ¥
 Water level
 V
 Shear vane (kPa)





#### CLIENT: PROJECT: LOCATION:

Capital Estate Developments Pty Ltd Proposed Residential Subdivision Stage 2 Denman North Estate, Denman Prospect **SURFACE LEVEL:** 568.0 AHD **EASTING:** 201252 **NORTHING:** 602481 PIT No: 2 PROJECT No: 88231.50 DATE: 2/8/2023 SHEET 1 OF 1

		Description	.0		Sam	pling &	& In Situ Testing					
De ) Y	epth (m)	of	Graphic Log	ec	oth	ple	Results &	Water	Dyna	amic Per (blows	netromet per mm	er Test )
268	(,	Strata	Ū	Type	Depth	Sample	Results & Comments	>	5	10	15	20
20	0.4	TOPSOIL FILL/Sandy SILT (ML): low plasticity, brown, fine to coarse grained sand, trace fine to coarse gravel, dry to moist, w <pl, fill<="" td="" topsoil=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></pl,>										
	0.1-	Sandy CLAY (CL), low plasticity, brown, fine to coarse grained sand, with fine to coarse gravel, trace cobbles, dry to moist, w <pl, fill<="" hard,="" possibly="" td=""><td></td><td>D</td><td>0.2</td><td></td><td>pp &gt;400</td><td></td><td>-</td><td></td><td></td><td></td></pl,>		D	0.2		pp >400		-			
	0.3-	DACITIC IGNIMBRITE: fine to coarse grained, yellow brown, orange brown, dry to moit, low to medium strength, highly to moderately weathered, highly fractured	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						-			
<u> </u>	0.5	Pit discontinued at 0.5m	h.~~									:
1 		-Bucket slow progress							1			

**RIG:** CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: GM

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** Surface levels and coordinates are approximate only and must not be relied upon.

 SAMPLING & IN SITU TESTING LEGEND

 A
 Auger sample
 G
 Gas sample
 PID
 Photo ionisation detector (ppm)

 B
 Built sample
 P
 Piston sample
 PL(A) Point load axial test Is(50) (MPa)

 BLK
 Block sample
 U,
 Tube sample (x mm dia.)
 PL(D) Point load diametral test Is(50) (MPa)

 C
 Core drilling
 W
 Water sample
 pp
 Pocket penetrometer (kPa)

 D
 Disturbed sample
 V
 Water level
 V
 Shear vane (kPa)



BLOCK:	7	SECTION:	97	SUBURB:	Denman Prospect
JOB No:	88231.50			DATE:	August 2023
CLIENT:	Capital Est	ate Developmen	ts Pty Ltd		REV: 0
Classificatio	on Procedu	res:			
Existing Subsu	urface Conditi	ons: Refer attached	test pit log(s) – I	Pit(s) 1,9 and Drawing 1.	
Bulk Earthwor	ks: Controlled f	ill within the block was	s placed under L	evel 1 control as defined	l in AS 3798:2007.
		is laboratory testing r shrinkage ranging fro		d liquid limit ranging fr	om 25-80%, plasticity index
magnitude of mo current soil profi the site would be block would be block. Should g drainage measu M* site classifica either by adding	bisture related s le / state, on lir e equivalent to vequivalent to Cl roundwater be res would then ation indicated fill or removing	easonal ground move nited subsurface infor worst case Class M* (i ass S* (slightly reactiv encountered during a be required to control above. Therefore the soil from the block a	ements that must mation, soil react moderately react re/filled) condition any site cut, C the groundwate the classification nd/or if the pres	st be considered in design ctivity and allowing for va- tive/filled) conditions. It r ons due to the shallow ro ass P conditions would r seepages to possibly e must be reassessed sl	idance on the patterns and in. Based on the worst case ariation in the subsoil profile, nust be noted that part of the ick in the southern half of the be warranted. Appropriate nable the conventional Class hould the soil profile change s or retaining walls are within
for each site class zone of influence be articulated in moisture condition	ssification. All fe e of any service n accordance works are maintai	ootings must found wi trenches, backfill zor vith current best prae	thin a uniform b nes, retaining wa ctice. Dwelling ootings. Footing	earing stratum of suitable alls or underground struc design must ensure su	systems that are appropriate e strength/material, below the tures. Masonry walls should itable drainage and uniform med by a structural engineer
Maintenance & foundation soils	Footing Perfo and in particul vitable, and it c	rmance' to comment ar in respect to main	s about garde taining good su	ns, landscaping and tre rface drainage. It notes	Sheet BTF 18 'Foundation ees on the performance of that minor cracking in most ndation movements that can
Comments/ Limitations:	informatic				ons and conclusions from the lity for such interpretations,
	Developm	nent specific geotechn	ical investigation	ns must be undertaken.	
			•	subsequent to the investig	5
	Site prepa uncontrol		onstruction shou	lid include removal of al	I vegetation, topsoil and any
		I must be placed unde warranted in those fill		ditions (AS 3798:2007),	otherwise Class P conditions
	Some var	iability in subsurface o	conditions must	be anticipated.	
	of investi				v vary considerably from time r seepages are highly likely
		excavation must be a minimal to reduce po			ecommended that excavation
		e site classification is ved from site and have			aterials/waste and stockpiles
		•		nspected by a geotechni	•
	This repo	rt must be read in con	junction with the	attached "Limitations" a	nd notes "About this Report".
References:		2011, Residential Slat	-		
	AS 3798: Australia.	2007, Guidelines on E	arthworks for C	ommercial and Residenti	al Developments, Standards
Attachment	Explanate	og(s) Pit(s) 1,9			
			Dol		Partners





#### CLIENT: PROJECT: LOCATION:

Capital Estate Developments Pty Ltd Proposed Residential Subdivision Stage 2 Denman North Estate, Denman Prospect **SURFACE LEVEL:** 569.0 AHD **EASTING:** 201279 **NORTHING:** 602490 PIT No: 1 PROJECT No: 88231.50 DATE: 2/8/2023 SHEET 1 OF 1

		Description	<u>.</u>		San	npling 8	& In Situ Testing					
님	Dep (m	oth	Graphic Log	Type	Depth	Sample	Results &	Water	Dynami (b	c Pene lows p	tromete er mm)	<sup>-</sup> Test
569		Strata	Ū	Tyl	Det	San	Results & Comments	>	5	10	15	20
-	-	TOPSOIL FILL/Sandy SILT (ML): low plasticity, brown, fine to coarse grained sand, trace fine to coarse gravel, dry to moist, w <pl, fill<="" td="" topsoil=""><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td></pl,>						-				
	-	FILL/Sandy CLAY (CL): low plasticity, brown, orange brown, fine to coarse grained sand, with fine to coarse gravel, trace cobbles, dry to moist, w <pl, fill<="" hard,="" td=""><td></td><td>D</td><td>0.5</td><td></td><td>pp &gt;400</td><td>-</td><td>-1</td><td></td><td></td><td></td></pl,>		D	0.5		pp >400	-	-1			
-	-	1.1 Silty CLAY (CI-CH): medium to high plasticity, red brown, with fine to coarse grained sand, trace fine gravel, dry to moist, w <pl, hard,="" residual<="" td=""><td></td><td>D</td><td>1.3</td><td></td><td>pp &gt;400</td><td>-</td><td></td><td></td><td></td><td></td></pl,>		D	1.3		pp >400	-				
-	-	1.5 Pit discontinued at 1.5m -Limit of investigation	_1/1 / 1 /					-				

**RIG:** CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: GM

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** Surface levels and coordinates are approximate only and must not be relied upon.

 SAMPLING & IN SITU TESTING LEGEND

 A
 Auger sample
 G
 Gas sample
 PID
 Photo ionisation detector (ppm)

 B
 Bulk sample
 P
 Piston sample
 PIL(A) Point load axial test Is(50) (MPa)

 BLK Block sample
 U
 Tube sample (x mm dia.)
 PL(D) Point load diametral test Is(50) (MPa)

 C
 Core drilling
 W
 Water sample
 pp
 Pocket penetrometer (KPa)

 D
 Disturbed sample
 V
 Water seep
 S
 Standard penetration test

 E
 Environmental sample
 ¥
 Water level
 V
 Shear vane (kPa)





Capital Estate Developments Pty Ltd

Stage 2 Denman North Estate, Denman

Proposed Residential Subdivision

Prospect

CLIENT:

PROJECT:

LOCATION:

#### SURFACE LEVEL: 569.0 AHD EASTING: 201240 NORTHING: 602422

PIT No: 9 PROJECT No: 88231.50 DATE: 2/8/2023 SHEET 1 OF 1

		Description			Sam	plina ?	& In Situ Testing					
R	Depth	Description of	Graphic Log	a				Water	Dynam	ic Penet blows pe	rometer	Test
	(m)	Strata	Gra	Type	Depth	Sample	Results & Comments	Š	5	10 IOWS PE	15	20
269		TOPSOIL FILL/Sandy SILT (ML): low plasticity, brown, fine to coarse grained sand, trace fine to coarse gravel, dry to moist, w <pl, fill<="" td="" topsoil=""><td></td><td></td><td></td><td>0,</td><td></td><td></td><td>-</td><td></td><td>• • • • • • • • • • • • • • • • • • •</td><td></td></pl,>				0,			-		• • • • • • • • • • • • • • • • • • •	
	0.2	DACITIC IGNIMBRITE: fine to coarse grained, brown mottled black, dry to moist, medium strength, moderately weathered, fractured							-			· · · · · ·
	0.4		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~									
	-1	Pit discontinued at 0.4m -Bucket refusal							-1			

**RIG:** CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: ADFH/SK

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** Surface levels and coordinates are approximate only and must not be relied upon.

 SAMPLING & IN SITU TESTING LEGEND

 A
 Auger sample
 G
 Gas sample
 PID
 Photo ionisation detector (ppm)

 B
 Bulk sample
 P
 Piston sample
 PL(A) Point load axial test Is(50) (MPa)

 BLK Block sample
 Ux
 Tube sample (x mm dia.)
 PL(D) Point load diametral test Is(50) (MPa)

 C
 Core drilling
 W
 Water sample
 p
 Pocket penetrometer (kPa)

 D
 Disturbed sample
 P
 Water level
 V
 Shear vane (kPa)



BLOCK:	8	SECTION:	97	SUBURB:	Denman Prospect
JOB No:	88231.50			DATE:	August 2023
CLIENT:	Capital Esta	ate Developmen	ts Pty Ltd		REV: 0
Classificatio	on Procedur	es:	-		
			test pit log(s) – F	Pit(s) 3,9 and Drawing 1.	
Bulk Earthwor	ks: Controlled fi	II within the block was	s placed under L	evel 1 control as defined	l in AS 3798:2007.
		s laboratory testing shrinkage ranging fro		d liquid limit ranging fr	om 25-80%, plasticity index
magnitude of mo current soil profi the site would be block would be block. Should g drainage measu M* site classifica either by adding	bisture related s le / state, on lim e equivalent to we equivalent to Cla roundwater be res would then be ation indicated a fill or removing	easonal ground move ited subsurface inform vorst case Class M* (r ass S* (slightly reactive encountered during a be required to control above. Therefore the soil from the block and	ements that mus mation, soil reac moderately reac ve/filled) conditio any site cut, Cl- the groundwate ne classification nd/or if the pres	t be considered in design ctivity and allowing for va- tive/filled) conditions. It r ns due to the shallow ro ass P conditions would r seepages to possibly e must be reassessed sl	idance on the patterns and gn. Based on the worst case ariation in the subsoil profile, nust be noted that part of the ick in the southern half of the be warranted. Appropriate nable the conventional Class nould the soil profile change s or retaining walls are within
for each site class zone of influence be articulated in moisture condition	ssification. All fo e of any service n accordance wo ons are maintair	ootings must found wit trenches, backfill zon rith current best prac	thin a uniform be nes, retaining wa ctice. Dwelling ootings. Footing	earing stratum of suitable Ills or underground struc design must ensure su	systems that are appropriate e strength/material, below the tures. Masonry walls should itable drainage and uniform med by a structural engineer
Maintenance & foundation soils	Footing Perfor and in particula vitable, and it de	mance' to comment ar in respect to main	s about garder taining good su	ns, landscaping and tre rface drainage. It notes	Sheet BTF 18 'Foundation ees on the performance of that minor cracking in most ndation movements that can
Comments/ Limitations:	information				ons and conclusions from the lity for such interpretations,
	Developm	ent specific geotechn	ical investigatior	ns must be undertaken.	
		,	•	ubsequent to the investi	5
	Site prepa uncontrolle		onstruction shou	ld include removal of al	I vegetation, topsoil and any
		must be placed unde warranted in those fill		ditions (AS 3798:2007),	otherwise Class P conditions
		ability in subsurface c		•	
	of investig				v vary considerably from time er seepages are highly likely
		excavation must be a minimal to reduce po			ecommended that excavation
		e site classification is ed from site and have			aterials/waste and stockpiles
		-		nspected by a geotechni	-
	This repor	t must be read in conj	junction with the	attached "Limitations" a	nd notes "About this Report".
References:		2011, Residential Slab	-		
	AS 3798:2 Australia.	2007, Guidelines on E	arthworks for Co	ommercial and Residenti	al Developments, Standards
Attachment	Explanato	s & About this Report ry Notes og(s) Pit(s) 3,9			
			Dou	nics   Environn	Partners





#### CLIENT: PROJECT: LOCATION:

Capital Estate Developments Pty Ltd Proposed Residential Subdivision Stage 2 Denman North Estate, Denman Prospect **SURFACE LEVEL:** 570.0 AHD **EASTING:** 201225 **NORTHING:** 602474 PIT No: 3 PROJECT No: 88231.50 DATE: 3/8/2023 SHEET 1 OF 1

		Description	<u>.</u>		Sam		& In Situ Testing	<u>ب</u>	-			
RL	Depth (m)	of	Graphic Log	Type	Depth	Sample	Results & Comments	Water	Dynai	nic Pene (blows p	etromete per mm)	er Test
570		Strata	0	ŕ	De	Sar	Comments	-	5	10	15	20
4	0.4	TOPSOIL FILL/Sandy SILT (ML): low plasticity, brown, fine to coarse grained sand, trace fine to coarse gravel, dry to moist, w <pl, fill<="" td="" topsoil=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></pl,>										
-	- 0.1-	FILL/Clayey SAND (SC): fine to coarse grained sand, brown, with fine to coarse gravel, dry to moist, inferred dense, FILL		D	0.3				- -			
569 ' ' '		Silty CLAY (CL-CI): low to medium plasticity, red brown, with fine to coarse grained sand, dry to moist, w <pl, hard,<br="">residual</pl,>		D	1.0				-1			
-	· 1.1·	DACITIC IGNIMBRITE: fine to coarse grained, red brown, low strength, highly weathered, highly fractured to fractured	2 2 2 2 2 2 2 2 2 2 2 2 2 2						-			
	- 1.3-	Pit discontinued at 1.3m -Limit of investigation										

**RIG:** CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: ADFH/SK

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** Surface levels and coordinates are approximate only and must not be relied upon.

 SAMPLING & IN SITU TESTING LEGEND

 A
 Auger sample
 G
 Gas sample
 PID
 Photo ionisation detector (ppm)

 B
 Bulk sample
 P
 Piston sample
 PL(A) Point load axial test Is(50) (MPa)

 BLK Block sample
 U
 Tube sample (x mm dia.)
 PL(D) Point load diametral test Is(50) (MPa)

 C
 Core drilling
 W
 Water sample
 pp
 Pocket penetrometer (kPa)

 D
 Disturbed sample
 P
 Water level
 V
 Shear vane (kPa)



Capital Estate Developments Pty Ltd

Stage 2 Denman North Estate, Denman

Proposed Residential Subdivision

Prospect

CLIENT:

PROJECT:

LOCATION:

#### SURFACE LEVEL: 569.0 AHD EASTING: 201240 NORTHING: 602422

PIT No: 9 PROJECT No: 88231.50 DATE: 2/8/2023 SHEET 1 OF 1

		Description			Sam	plina ?	& In Situ Testing					
R	Depth	Description of	Graphic Log	a				Water	Dynam	ic Penet blows pe	rometer	Test
	(m)	Strata	Gra	Type	Depth	Sample	Results & Comments	Š	5	10 IOWS PE	15	20
269		TOPSOIL FILL/Sandy SILT (ML): low plasticity, brown, fine to coarse grained sand, trace fine to coarse gravel, dry to moist, w <pl, fill<="" td="" topsoil=""><td></td><td></td><td></td><td>0,</td><td></td><td></td><td>-</td><td></td><td>• • • • • • • • • • • • • • • • • • •</td><td></td></pl,>				0,			-		• • • • • • • • • • • • • • • • • • •	
	0.2	DACITIC IGNIMBRITE: fine to coarse grained, brown mottled black, dry to moist, medium strength, moderately weathered, fractured							-			· · · · · ·
	0.4		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~									
	-1	Pit discontinued at 0.4m -Bucket refusal							-1			

**RIG:** CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: ADFH/SK

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** Surface levels and coordinates are approximate only and must not be relied upon.

 SAMPLING & IN SITU TESTING LEGEND

 A
 Auger sample
 G
 Gas sample
 PID
 Photo ionisation detector (ppm)

 B
 Bulk sample
 P
 Piston sample
 PL(A) Point load axial test Is(50) (MPa)

 BLK Block sample
 Ux
 Tube sample (x mm dia.)
 PL(D) Point load diametral test Is(50) (MPa)

 C
 Core drilling
 W
 Water sample
 p
 Pocket penetrometer (kPa)

 D
 Disturbed sample
 P
 Water level
 V
 Shear vane (kPa)



BLOCK:	9	SECTION:	97	SUBURB:	Denman Prospect
JOB No:	88231.50			DATE:	August 2023
CLIENT:	Capital Esta	ate Developmen	ts Pty Ltd		REV: 0
Classificatio	on Procedur	es:	-		
			test pit log(s) – F	Pit(s) 3,8 and Drawing 1.	
Bulk Earthwor	ks: Controlled fi	Il within the block was	s placed under L	evel 1 control as defined	l in AS 3798:2007.
		s laboratory testing shrinkage ranging fro		d liquid limit ranging fr	om 25-80%, plasticity index
magnitude of ma current soil profi the site would be block would be block. Should g drainage measu M* site classific either by adding	bisture related so ile / state, on lime e equivalent to we equivalent to Cla roundwater be res would then be ation indicated a fill or removing	easonal ground move ited subsurface inform vorst case Class M* (r ass S* (slightly reactive encountered during a be required to control above. Therefore the soil from the block and	ements that mus mation, soil reac moderately reac ve/filled) conditio any site cut, Cl- the groundwate ne classification nd/or if the pres	t be considered in design ctivity and allowing for va- tive/filled) conditions. It r ns due to the shallow ro ass P conditions would r seepages to possibly e must be reassessed sl	idance on the patterns and gn. Based on the worst case ariation in the subsoil profile, nust be noted that part of the ick in the southern half of the be warranted. Appropriate nable the conventional Class nould the soil profile change s or retaining walls are within
for each site clas zone of influence be articulated in moisture condition	ssification. All fo e of any service n accordance w ons are maintair	ootings must found wit trenches, backfill zon rith current best prac	thin a uniform be nes, retaining wa ctice. Dwelling ootings. Footing	earing stratum of suitable Ills or underground struc design must ensure su	systems that are appropriate e strength/material, below the tures. Masonry walls should itable drainage and uniform med by a structural engineer
Maintenance & foundation soils	Footing Perfor and in particula vitable, and it de	mance' to comment ar in respect to main	s about garder taining good su	ns, landscaping and tre rface drainage. It notes	Sheet BTF 18 'Foundation ees on the performance of that minor cracking in most ndation movements that can
Comments/ Limitations:	information				ons and conclusions from the lity for such interpretations,
	Developm	ent specific geotechn	ical investigatior	ns must be undertaken.	
		, ,		ubsequent to the investi	5
	Site prepa uncontrolle		onstruction shou	ld include removal of al	I vegetation, topsoil and any
		must be placed unde warranted in those fill		ditions (AS 3798:2007),	otherwise Class P conditions
		ability in subsurface c		•	
	of investig				v vary considerably from time er seepages are highly likely
		excavation must be a minimal to reduce po			ecommended that excavation
		e site classification is ed from site and have			aterials/waste and stockpiles
	It is recom	mended that footing e	excavations be i	nspected by a geotechni	cal engineer.
	This repor	t must be read in conj	junction with the	attached "Limitations" a	nd notes "About this Report".
References	AS 2870:2	011, Residential Slab	os and Footings,	Standards Australia.	
	AS 3798:2 Australia.	2007, Guidelines on E	arthworks for Co	ommercial and Residenti	al Developments, Standards
Attachment	Explanato	s & About this Report ry Notes og(s) Pit(s) 3,8			
			Dol Geotech	nics   Environn	Partners





#### CLIENT: PROJECT: LOCATION:

Capital Estate Developments Pty Ltd Proposed Residential Subdivision Stage 2 Denman North Estate, Denman Prospect **SURFACE LEVEL:** 570.0 AHD **EASTING:** 201225 **NORTHING:** 602474 PIT No: 3 PROJECT No: 88231.50 DATE: 3/8/2023 SHEET 1 OF 1

		Description	<u>.</u>		Sam		& In Situ Testing	<u>ب</u>	-			
RL	Depth (m)	of	Graphic Log	Type	Depth	Sample	Results & Comments	Water	Dynai	nic Pene (blows p	etromete per mm)	er Test
570		Strata	0	ŕ	De	Sar	Comments	-	5	10	15	20
L.	0.4	TOPSOIL FILL/Sandy SILT (ML): low plasticity, brown, fine to coarse grained sand, trace fine to coarse gravel, dry to moist, w <pl, fill<="" td="" topsoil=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></pl,>										
-	- 0.1-	FILL/Clayey SAND (SC): fine to coarse grained sand, brown, with fine to coarse gravel, dry to moist, inferred dense, FILL		D	0.3				- -			
569 ' ' '		Silty CLAY (CL-CI): low to medium plasticity, red brown, with fine to coarse grained sand, dry to moist, w <pl, hard,<br="">residual</pl,>		D	1.0				-1			
-	· 1.1·	DACITIC IGNIMBRITE: fine to coarse grained, red brown, low strength, highly weathered, highly fractured to fractured	2 2 2 2 2 2 2 2 2 2 2 2 2 2						-			
	- 1.3-	Pit discontinued at 1.3m -Limit of investigation										

**RIG:** CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: ADFH/SK

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** Surface levels and coordinates are approximate only and must not be relied upon.

 SAMPLING & IN SITU TESTING LEGEND

 A
 Auger sample
 G
 Gas sample
 PID
 Photo ionisation detector (ppm)

 B
 Bulk sample
 P
 Piston sample
 PL(A) Point load axial test Is(50) (MPa)

 BLK Block sample
 U
 Tube sample (x mm dia.)
 PL(D) Point load diametral test Is(50) (MPa)

 C
 Core drilling
 W
 Water sample
 pp
 Pocket penetrometer (kPa)

 D
 Disturbed sample
 P
 Water level
 V
 Shear vane (kPa)



CLIENT: PROJECT: LOCATION: Capital Estate Developments Pty Ltd Proposed Residential Subdivision Stage 2 Denman North Estate, Denman Prospect **SURFACE LEVEL:** 568.0 AHD **EASTING:** 201211 **NORTHING:** 602430 PIT No: 8 PROJECT No: 88231.50 DATE: 3/8/2023 SHEET 1 OF 1

Barrier     Description     Sameling & In Sturrer     Monthly Description       Stata     Stata     Stata     Stata     Stata       FLUSsing Sity CLAY (CL): to classicy throw fine to classical to	Γ		Description	<u>ic</u>		Sam		& In Situ Testing	_				<b>-</b> (
B     FILL/Sandy Silty CLAY (CL): low plasticity, brown, fine to coarse grained sand, with fine to coarse grained, sand, with fine to coarse grained, sown motted orange black brown, with significantly weathered sears, low to medium strength, moderately weathered searce	R	u Depth (m)		Sraph Log	ype	epth	mple	Results &	Wate	Dynam	(blows p	tromete er mm)	riest
PiLLSatidy Silv CLAY (CL) flow plastidy, Drown, Ime to Coarse grained sand, with the to Coarse grained, brown motifed orange black brown, with significantly weathered, fractured         01         DACITIC IGNIMBRITE: fine to coarse grained, brown motifed orange black brown, with significantly weathered, fractured         02         01         DACITIC IGNIMBRITE: fine to coarse grained, brown motifed orange black brown, with significantly weathered, fractured         02         02         Pitt discontinued at 0.2m         -Refusal on weathered rock	a				É.	ă	Sai	Comments		5	10	15	20
DACITIC IGNIMBRITE: the to coarse grained, brown motted orange black brown, with significantly weathered seams, low to medium strength, moderately weathered, fractured Pit discontinued at 0.2m - Refusal on weathered rock			FILL/Sandy Silty CLAY (CL): low plasticity, brown, fine to coarse grained sand, with fine to coarse gravel, trace cobbles, dry to moist, w <pl, fill<="" inferred="" stiff,="" td="" very=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>•</td><td></td></pl,>									•	
O     D     Tractured     Pit discontinued at 0.2m     -Refusal on weathered rock	Ī	- 0.1	DACITIC IGNIMBRITE: fine to coarse grained, brown mottled orange black brown, with significantly weathered seams, low to medium strength, moderately weathered,						-			•	
Image: Sector	-	- 0.2	Pit discontinued at 0.2m	w. w.									
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**RIG:** CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: ADFH/SK

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** Surface levels and coordinates are approximate only and must not be relied upon.

	SAN	/IPLING	& IN SITU TESTING	LEGE	ND		
Α	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)		
В	Bulk sample	Р	Piston sample	PL(A	Point load axial test Is(50) (MPa)		
BLK	Block sample	U,	Tube sample (x mm dia.)	PL(D	Point load diametral test ls(50) (MPa)		
С	Core drilling	Ŵ	Water sample	pp	Pocket penetrometer (kPa)		
D	Disturbed sample	⊳	Water seep	S	Standard penetration test		
E	Environmental sample	Ŧ	Water level	V	Shear vane (kPa)		Ge



BLOCK:	10	SECTION:	97	SUBURB:	Denman Prospect
JOB No:	88231.50			DATE:	August 2023
CLIENT:	Capital Est	ate Developmer	ts Pty Ltd		REV: 0
Classificatio	on Procedu	res:	-		
Bulk Earthwor	ks: Controlled	fill within the block was	s placed under L results indicate	Pit(s) 5,8 and Drawing 1. evel 1 control as defined d liquid limit ranging fro	in AS 3798:2007. om 25-80%, plasticity index
magnitude of m profile / state, o profile would be exposes entirely encountered du required to com above. Therefo and/or if the pre	oisture related son limited subso e equivalent to o y weathered ro ring any site cu trol the ground re the site class sence of service	seasonal ground move urface information, so Class S* (slightly read ck, a Class A (non-r t, Class P conditions water seepages to po ification must be rease	ements that mus il reactivity and tive/filled) cond eactive) classifi would be warra ssibly enable th sessed should the walls or submer	t be considered in designallowing for variation in itions. If the building paration may be appropriated. Appropriate drainanted. Appropriate drainante conventional Class S <sup>4</sup> the subsurface profile changed structures are within	idance on the patterns and n. Based on the current soil the subsoil profile, the soil d, following site excavations ate. Should groundwater be ge measures would then be i site classification indicated inge by either cutting or filling the zone of influence of the
for each site cla zone of influenc be articulated i moisture conditi	ssification. All f e of any service n accordance ons are maintai	ootings must found wi e trenches, backfill zor with current best pra	thin a uniform b nes, retaining wa ctice. Dwelling ootings. Footing	earing stratum of suitable alls or underground struc design must ensure sui	systems that are appropriate strength/material, below the tures. Masonry walls should table drainage and uniform ned by a structural engineer
Maintenance & foundation soils	Footing Perfo and in particul vitable, and it o	rmance' to comment ar in respect to main	s about garde taining good su	ns, landscaping and tre rface drainage. It notes	Sheet BTF 18 'Foundation les on the performance of that minor cracking in most indation movements that can
Comments/ Limitations	informatio				ns and conclusions from the ity for such interpretations,
	Developn	nent specific geotechn	ical investigation	ns must be undertaken.	
				subsequent to the investig	
	Site prep uncontrol		onstruction shou	ld include removal of all	vegetation, topsoil and any
		Il must be placed unde warranted in those fill		ditions (AS 3798:2007),	otherwise Class P conditions
	Some va	riability in subsurface of	conditions must	be anticipated.	
	of investi				vary considerably from time r seepages are highly likely
		c excavation must be otential site costs.	anticipated. It is	recommended that exca	vation depths be minimal to
		e site classification is ved from site and have		5	aterials/waste and stockpiles
	It is recor	nmended that footing	excavations be	nspected by a geotechnic	cal engineer.
	This repo	rt must be read in con	junction with the	attached "Limitations" ar	nd notes "About this Report".
References	AS 2870:	2011, Residential Slat	os and Footings	Standards Australia.	
	AS 3798: Australia.		arthworks for C	ommercial and Residentia	al Developments, Standards
Attachment	Explanate	og(s) Pit(s) 5,8			
					Partners





#### CLIENT: PROJECT: LOCATION:

Capital Estate Developments Pty Ltd Proposed Residential Subdivision Stage 2 Denman North Estate, Denman Prospect **SURFACE LEVEL:** 571.0 AHD **EASTING:** 201226 **NORTHING:** 602447

PIT No: 5 PROJECT No: 88231.50 DATE: 3/8/2023 SHEET 1 OF 1

Γ	Description .		. <u>ט</u>		Sam		& In Situ Testing		_			_
R	Depth (m)	of	Graphic Log	Type	Depth	Sample	Results & Comments	Water	Dynai	nic Pene (blows p	tromete er mm)	r Test
511		Strata	0	ту	De	Sar	Comments	-	5	10	15	20
		TOPSOIL FILL/Sandy SILT (ML): low plasticity, brown, fine to coarse grained sand, trace fine to coarse gravel, dry to moist, w <pl, fill<="" td="" topsoil=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></pl,>										
	- 0.1	Silty CLAY (CL): low plasticity, red orange brown, with fine to coarse sand, dry to moist, w <pl, hard,="" residual<="" td=""><td></td><td>D</td><td>0.2</td><td></td><td></td><td></td><td></td><td></td><td>• • • • • •</td><td></td></pl,>		D	0.2						• • • • • •	
	0.25	DACITIC IGNIMBRITE: fine to coarse grained, grey brown		D	0.2							
-	-	DACITIC IGNIMBRITE: fine to coarse grained, grey brown mottled orange brown, low to medium strength, highly to moderately weathered, highly fractured to fractured		2 2 2								
ł	- 0.4	Dit discontinued at 0.4m	n n n	—D—	-0.4-							
-	- 0.4	Pit discontinued at 0.4m -Bucket slow progress			_0.4_				-			
	- 1								-1			

**RIG:** CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: ADFH/SK

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** Surface levels and coordinates are approximate only and must not be relied upon.

 SAMPLING & IN SITU TESTING LEGEND

 A
 Auger sample
 G
 Gas sample
 PID
 Photo ionisation detector (ppm)

 B
 Buik sample
 P
 Piston sample
 PID
 Photo ionisation detector (ppm)

 BLK
 Block sample
 U
 Tube sample (x mm dia.)
 PL(A) Point load axial test Is(50) (MPa)

 D
 Disturbed sample
 W
 Water seep
 S
 Standard penetration test

 E
 Environmental sample
 W
 Water seep
 V
 Shear vane (kPa)



CLIENT: PROJECT: LOCATION: Capital Estate Developments Pty Ltd Proposed Residential Subdivision Stage 2 Denman North Estate, Denman Prospect **SURFACE LEVEL:** 568.0 AHD **EASTING:** 201211 **NORTHING:** 602430 PIT No: 8 PROJECT No: 88231.50 DATE: 3/8/2023 SHEET 1 OF 1

Barrier     Description     Sameling & In Sturrer     Monthly Description       Stata     Stata     Stata     Stata     Stata       FLUSsing Sity CLAY (CL): to classicy throw fine to classical to	Γ	Description		Sampling & In Situ Testing					_				
B     FILL/Sandy Silty CLAY (CL): low plasticity, brown, fine to coarse grained sand, with fine to coarse grained, sand, with fine to coarse grained, sown motted orange black brown, with significantly weathered sears, low to medium strength, moderately weathered searce	R	u Depth (m)		Sraph Log	ype	epth	mple	Results &	Wate	Dynam	(blows p	tromete er mm)	riest
PiLLSatidy Silv CLAY (CL) flow plastidy, Drown, Ime to Coarse grained sand, with the to Coarse grained, brown motifed orange black brown, with significantly weathered, fractured         01         DACITIC IGNIMBRITE: fine to coarse grained, brown motifed orange black brown, with significantly weathered, fractured         02         01         DACITIC IGNIMBRITE: fine to coarse grained, brown motifed orange black brown, with significantly weathered, fractured         02         02         Pitt discontinued at 0.2m         -Refusal on weathered rock	a				É.	ă	Sai	Comments		5	10	15	20
DACITIC IGNIMBRITE: the to coarse grained, brown motted orange black brown, with significantly weathered seams, low to medium strength, moderately weathered, fractured Pit discontinued at 0.2m - Refusal on weathered rock			FILL/Sandy Silty CLAY (CL): low plasticity, brown, fine to coarse grained sand, with fine to coarse gravel, trace cobbles, dry to moist, w <pl, fill<="" inferred="" stiff,="" td="" very=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>•</td><td></td></pl,>									•	
O     D     Tractured     Pit discontinued at 0.2m     -Refusal on weathered rock	Ī	- 0.1	DACITIC IGNIMBRITE: fine to coarse grained, brown mottled orange black brown, with significantly weathered seams, low to medium strength, moderately weathered,						-			•	
Image: Sector	-	- 0.2	Pit discontinued at 0.2m	w. w.									
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**RIG:** CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: ADFH/SK

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** Surface levels and coordinates are approximate only and must not be relied upon.

	SAN	/IPLING	& IN SITU TESTING	LEGE	ND		
Α	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)		
В	Bulk sample	Р	Piston sample	PL(A	Point load axial test Is(50) (MPa)		
BLK	Block sample	U,	Tube sample (x mm dia.)	PL(D	Point load diametral test ls(50) (MPa)		
С	Core drilling	Ŵ	Water sample	pp	Pocket penetrometer (kPa)		
D	Disturbed sample	⊳	Water seep	S	Standard penetration test		
E	Environmental sample	Ŧ	Water level	V	Shear vane (kPa)		Ge



BLOCK:	11	SECTION:	97	SUBURB:	Denman Prospect
JOB No:	88231.50			DATE:	August 2023
CLIENT:	Capital Esta	ate Developmen	ts Pty Ltd		REV: 0
Classificatio	on Procedu	res:			
Existing Subs	urface Conditi	ons: Refer attached	test pit log(s) – I	Pit(s) 5,7 and Drawing 1.	
Bulk Earthwor	ks: Controlled f	ill within the block was	s placed under L	evel 1 control as defined	in AS 3798:2007.
		s laboratory testing shrinkage ranging fro		d liquid limit ranging fro	om 25-80%, plasticity index
magnitude of m profile / state, o profile would be exposes entirely encountered du required to com above. Therefo and/or if the pre	oisture related s on limited subsu e equivalent to C y weathered roo ring any site cut trol the groundw re the site classi esence of service	easonal ground move inface information, so Class S* (slightly reac ck, a Class A (non-r c, Class P conditions vater seepages to po fication must be rease	ements that mus il reactivity and tive/filled) cond eactive) classifi would be warra ssibly enable th sessed should th walls or submer	t be considered in desig allowing for variation in itions. If the building pa cation may be appropria ted. Appropriate draina te conventional Class S the subsurface profile cha ged structures are within	idance on the patterns and n. Based on the current soil a the subsoil profile, the soil d, following site excavations ate. Should groundwater be age measures would then be * site classification indicated nge by either cutting or filling the zone of influence of the
for each site cla zone of influenc be articulated i moisture conditi	ssification. All for e of any service n accordance v ons are maintair	ootings must found wi trenches, backfill zor vith current best prae	thin a uniform b nes, retaining wa ctice. Dwelling ootings. Footing	earing stratum of suitable alls or underground struc design must ensure sui	systems that are appropriate strength/material, below the tures. Masonry walls should itable drainage and uniform med by a structural engineer
Maintenance & foundation soils	Footing Perfor and in particula vitable, and it d	mance' to comment ar in respect to main	s about garde taining good su	ns, landscaping and tre rface drainage. It notes	Sheet BTF 18 'Foundation bes on the performance of that minor cracking in most indation movements that can
Comments/ Limitations:	informatio				ons and conclusions from the ity for such interpretations,
	Developm	ent specific geotechn	ical investigation	ns must be undertaken.	
			•	subsequent to the investig	5
	Site prepa uncontroll		onstruction shou	ld include removal of all	l vegetation, topsoil and any
		l must be placed unde warranted in those fill		ditions (AS 3798:2007),	otherwise Class P conditions
	Some var	iability in subsurface o	conditions must	be anticipated.	
	of investig				v vary considerably from time or seepages are highly likely
		excavation must be tential site costs.	anticipated. It is	recommended that exca	avation depths be minimal to
		e site classification is red from site and have			aterials/waste and stockpiles
	It is recom	nmended that footing	excavations be i	nspected by a geotechni	cal engineer.
	This repor	t must be read in con	junction with the	attached "Limitations" a	nd notes "About this Report".
References		2011, Residential Slat	-		
	AS 3798:2 Australia.	2007, Guidelines on E	arthworks for C	ommercial and Residenti	al Developments, Standards
Attachment	Explanato	og(s) Pit(s) 5,7			
			Dol Geotech	uglas F	Partners





#### CLIENT: PROJECT: LOCATION:

Capital Estate Developments Pty Ltd Proposed Residential Subdivision Stage 2 Denman North Estate, Denman Prospect **SURFACE LEVEL:** 571.0 AHD **EASTING:** 201226 **NORTHING:** 602447

PIT No: 5 PROJECT No: 88231.50 DATE: 3/8/2023 SHEET 1 OF 1

Γ	Description .		. <u>ט</u>		Sam		& In Situ Testing		_			_
R	Depth (m)	of	Graphic Log	Type	Depth	Sample	Results & Comments	Water	Dynai	nic Pene (blows p	tromete er mm)	r Test
511		Strata	0	ту	De	Sar	Comments	-	5	10	15	20
		TOPSOIL FILL/Sandy SILT (ML): low plasticity, brown, fine to coarse grained sand, trace fine to coarse gravel, dry to moist, w <pl, fill<="" td="" topsoil=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></pl,>										
	- 0.1	Silty CLAY (CL): low plasticity, red orange brown, with fine to coarse sand, dry to moist, w <pl, hard,="" residual<="" td=""><td></td><td>D</td><td>0.2</td><td></td><td></td><td></td><td></td><td></td><td>• • • • • •</td><td></td></pl,>		D	0.2						• • • • • •	
	0.25	DACITIC IGNIMBRITE: fine to coarse grained, grey brown		D	0.2							
-	-	DACITIC IGNIMBRITE: fine to coarse grained, grey brown mottled orange brown, low to medium strength, highly to moderately weathered, highly fractured to fractured		2 2 2								
ł	- 0.4	Dit discontinued at 0.4m	n n n	—D—	-0.4-							
-	- 0.4	Pit discontinued at 0.4m -Bucket slow progress			_0.4_				-			
	- 1								-1			

**RIG:** CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: ADFH/SK

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** Surface levels and coordinates are approximate only and must not be relied upon.

 SAMPLING & IN SITU TESTING LEGEND

 A
 Auger sample
 G
 Gas sample
 PID
 Photo ionisation detector (ppm)

 B
 Buik sample
 P
 Piston sample
 PID
 Photo ionisation detector (ppm)

 BLK
 Block sample
 U
 Tube sample (x mm dia.)
 PL(A) Point load axial test Is(50) (MPa)

 D
 Disturbed sample
 W
 Water seep
 S
 Standard penetration test

 E
 Environmental sample
 W
 Water seep
 V
 Shear vane (kPa)



#### CLIENT: PROJECT: LOCATION:

Capital Estate Developments Pty Ltd Proposed Residential Subdivision Stage 2 Denman North Estate, Denman Prospect **SURFACE LEVEL:** 568.0 AHD **EASTING:** 201274 **NORTHING:** 602457 PIT No: 7 PROJECT No: 88231.50 DATE: 3/8/2023 SHEET 1 OF 1

Γ	Τ		Description	.u	Sampling & In Situ Testing								
ā		Depth (m)	of	Graphic Log	Type	Depth	Sample	Results & Comments	Water	Dynam (	ic Pene blows p	tromete er mm)	er Test
a wa			Strata FILL/Sandy Silty CLAY (CL): low plasticity, brown, fine to coarse grained sand, with fine to coarse gravel, trace cobbles, dry to moist, w <pl, fill<="" inferred="" stiff,="" td="" very=""><td></td><td>-</td><td>ă</td><td>Sa</td><td>Conments</td><td></td><td>5</td><td>10</td><td>15</td><td>20</td></pl,>		-	ă	Sa	Conments		5	10	15	20
-	-	0.2								-		•	
-	-	0.2	DACITIC IGNIMBRITE: fine to coarse grained, brown mottled orange black brown, with significantly weathered seams, low to medium strength, moderately weathered, fractured									•	
-	-									-			
-	-				D	0.5				-	· · · ·	•	
-	-									-		- - - - - - - - - - - - - - -	
-	-	0.7 -	Pit discontinued at 0.7m -Limit of investigation	ne ne ne									
-	-									-		•	
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-	-									-		•	
-	-									-		•	
-	-									-			
-	-									-			
-	-									-			

**RIG:** CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: ADFH/SK

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** Surface levels and coordinates are approximate only and must not be relied upon.

 SAMPLING & IN SITU TESTING LEGEND

 A
 Auger sample
 G
 Gas sample
 PID
 Photo ionisation detector (ppm)

 B
 Bulk sample
 P
 Piston sample
 PIL(A) Point load axial test Is(50) (MPa)

 BLK
 Block sample
 U
 Tube sample (x mm dia.)
 PL(A) Point load diametral test Is(50) (MPa)

 C
 Core drilling
 W
 Water sample
 pp
 Pocket penetrometer (kPa)

 D
 Disturbed sample
 P
 Water seep
 S
 Standard penetration test

 E
 Environmental sample
 ¥
 Water level
 V
 Shear vane (kPa)



BLOCK:	12	SECTION:	97	SUBURB:	Denman Prospect
JOB No:	88231.50			DATE:	August 2023
CLIENT:	Capital Est	ate Developmen	ts Pty Ltd		REV: 0
Classificatio	on Procedu	res:			
Bulk Earthwor	<b>ks:</b> Controlled tesults: Previou	ill within the block was	s placed under L results indicate	Pit(s) 5,7 and Drawing 1. evel 1 control as defined d liquid limit ranging fro	in AS 3798:2007. om 25-80%, plasticity index
magnitude of m profile / state, o profile would be exposes entirely encountered du required to com above. Therefo and/or if the pre	oisture related son limited subso e equivalent to ( y weathered ro ring any site cu trol the ground re the site class sence of servic	easonal ground move urface information, so Class S* (slightly reac ck, a Class A (non-r t, Class P conditions vater seepages to po ification must be rease	ements that mus il reactivity and tive/filled) cond eactive) classifi would be warra ssibly enable th sessed should th walls or submer	t be considered in designallowing for variation in tions. If the building parcation may be appropriated. Appropriate drainane conventional Class S <sup>4</sup> the subsurface profile changed structures are within	idance on the patterns and n. Based on the current soil the subsoil profile, the soil d, following site excavations ate. Should groundwater be ge measures would then be is site classification indicated inge by either cutting or filling the zone of influence of the
for each site cla zone of influenc be articulated i moisture conditi	ssification. All f e of any service n accordance v ons are maintai	ootings must found wi trenches, backfill zor with current best prae	thin a uniform b nes, retaining wa ctice. Dwelling ootings. Footing	earing stratum of suitable alls or underground struct design must ensure sui	systems that are appropriate strength/material, below the tures. Masonry walls should table drainage and uniform med by a structural engineer
Maintenance & foundation soils	Footing Perfo and in particul vitable, and it o	rmance' to comment ar in respect to main	s about garde taining good su	ns, landscaping and tre rface drainage. It notes	Sheet BTF 18 'Foundation les on the performance of that minor cracking in most indation movements that can
Comments/ Limitations	informatio				ons and conclusions from the ity for such interpretations,
	Developn	nent specific geotechn	ical investigation	ns must be undertaken.	
				subsequent to the investig	
	Site prep uncontrol		onstruction shou	ld include removal of all	vegetation, topsoil and any
		I must be placed unde warranted in those fill		ditions (AS 3798:2007),	otherwise Class P conditions
	Some var	iability in subsurface o	conditions must	pe anticipated.	
	of investi				vary considerably from time r seepages are highly likely
		excavation must be otential site costs.	anticipated. It is	recommended that exca	vation depths be minimal to
	The abov				aterials/waste and stockpiles
	It is recor	nmended that footing	excavations be i	nspected by a geotechnic	cal engineer.
	This repo	rt must be read in con	junction with the	attached "Limitations" ar	nd notes "About this Report".
References	AS 2870:	2011, Residential Slat	s and Footings,	Standards Australia.	
	AS 3798: Australia.	2007, Guidelines on E	arthworks for C	ommercial and Residentia	al Developments, Standards
Attachment	Explanate	og(s) Pit(s) 5,7			
			Dol Geotech	uglas F	Partners





#### CLIENT: PROJECT: LOCATION:

Capital Estate Developments Pty Ltd Proposed Residential Subdivision Stage 2 Denman North Estate, Denman Prospect **SURFACE LEVEL:** 571.0 AHD **EASTING:** 201226 **NORTHING:** 602447

PIT No: 5 PROJECT No: 88231.50 DATE: 3/8/2023 SHEET 1 OF 1

Γ	Description .		. <u>ט</u>		Sam		& In Situ Testing		_			_
R	Depth (m)	of	Graphic Log	Type	Depth	Sample	Results & Comments	Water	Dynai	nic Pene (blows p	tromete er mm)	r Test
511		Strata	0	ту	De	Sar	Comments	-	5	10	15	20
		TOPSOIL FILL/Sandy SILT (ML): low plasticity, brown, fine to coarse grained sand, trace fine to coarse gravel, dry to moist, w <pl, fill<="" td="" topsoil=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></pl,>										
	- 0.1	Silty CLAY (CL): low plasticity, red orange brown, with fine to coarse sand, dry to moist, w <pl, hard,="" residual<="" td=""><td></td><td>D</td><td>0.2</td><td></td><td></td><td></td><td></td><td></td><td>• • • • • •</td><td></td></pl,>		D	0.2						• • • • • •	
	0.25	DACITIC IGNIMBRITE: fine to coarse grained, grey brown		D	0.2							
-	-	DACITIC IGNIMBRITE: fine to coarse grained, grey brown mottled orange brown, low to medium strength, highly to moderately weathered, highly fractured to fractured		2 2 2								
ł	- 0.4	Dit discontinued at 0.4m	n n n	—D—	-0.4-							
-	- 0.4	Pit discontinued at 0.4m -Bucket slow progress			_0.4_				-			
	- 1								-1			

**RIG:** CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: ADFH/SK

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** Surface levels and coordinates are approximate only and must not be relied upon.

 SAMPLING & IN SITU TESTING LEGEND

 A
 Auger sample
 G
 Gas sample
 PID
 Photo ionisation detector (ppm)

 B
 Buik sample
 P
 Piston sample
 PID
 Photo ionisation detector (ppm)

 BLK
 Block sample
 U
 Tube sample (x mm dia.)
 PL(A) Point load axial test Is(50) (MPa)

 D
 Disturbed sample
 W
 Water seep
 S
 Standard penetration test

 E
 Environmental sample
 W
 Water seep
 V
 Shear vane (kPa)



#### CLIENT: PROJECT: LOCATION:

Capital Estate Developments Pty Ltd Proposed Residential Subdivision Stage 2 Denman North Estate, Denman Prospect **SURFACE LEVEL:** 568.0 AHD **EASTING:** 201274 **NORTHING:** 602457 PIT No: 7 PROJECT No: 88231.50 DATE: 3/8/2023 SHEET 1 OF 1

Γ	Τ		Description	.u	Sampling & In Situ Testing								
ā		Depth (m)	of	Graphic Log	Type	Depth	Sample	Results & Comments	Water	Dynam (	ic Pene blows p	tromete er mm)	er Test
a wa			Strata FILL/Sandy Silty CLAY (CL): low plasticity, brown, fine to coarse grained sand, with fine to coarse gravel, trace cobbles, dry to moist, w <pl, fill<="" inferred="" stiff,="" td="" very=""><td></td><td>-</td><td>ă</td><td>Sa</td><td>Conments</td><td></td><td>5</td><td>10</td><td>15</td><td>20</td></pl,>		-	ă	Sa	Conments		5	10	15	20
-	-	0.2								-		•	
-	-	0.2	DACITIC IGNIMBRITE: fine to coarse grained, brown mottled orange black brown, with significantly weathered seams, low to medium strength, moderately weathered, fractured									•	
-	-									-			
-	-				D	0.5				-	· · · ·	•	
-	-									-		- - - - - - - - - - - - - - -	
-	-	0.7 -	Pit discontinued at 0.7m -Limit of investigation	ne ne ne									
-	-									-		•	
-	-	1								-1		•	
-	-									-		•	
-	-									-		•	
-	-									-		•	
-	-									-			
-	-									-			
-	-									-			

**RIG:** CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: ADFH/SK

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** Surface levels and coordinates are approximate only and must not be relied upon.

 SAMPLING & IN SITU TESTING LEGEND

 A
 Auger sample
 G
 Gas sample
 PID
 Photo ionisation detector (ppm)

 B
 Bulk sample
 P
 Piston sample
 PIL(A) Point load axial test Is(50) (MPa)

 BLK
 Block sample
 U
 Tube sample (x mm dia.)
 PL(A) Point load diametral test Is(50) (MPa)

 C
 Core drilling
 W
 Water sample
 pp
 Pocket penetrometer (kPa)

 D
 Disturbed sample
 P
 Water seep
 S
 Standard penetration test

 E
 Environmental sample
 ¥
 Water level
 V
 Shear vane (kPa)



BLOCK:	13	SECTION:	97	SUBURB:	Denman Prospect
JOB No:	88231.50			DATE:	August 2023
CLIENT:	Capital Esta	ate Developmen	ts Pty Ltd		REV: 0
Classificati	on Procedur	es:			
Existing Subs	urface Condition	ons: Refer attached to	est pit log(s) – F	Pit(s) 5,6 and Drawing 1.	
		is laboratory testing shrinkage ranging fro		d liquid limit ranging fro	m 25-80%, plasticity index
magnitude of m profile / state, c soil profile wou exposes entirel encountered du required to con above. Therefo and/or if the pre	oisture related s on limited subsur Id be equivalent y weathered roc rring any site cut trol the groundwore the site classi esence of service	easonal ground move face information, soil to Class S (slightly r k, a Class A (non-re , Class P conditions w rater seepages to po fication must be reass	ments that mus reactivity and a reactive) condit active) classific vould be warrar ssibly enable th essed should th valls or submer	t be considered in desigr llowing for variation in th ions. If the building pac- ation may be appropriat nted. Appropriate draina- ne conventional Class S ne subsurface profile char ged structures are within	dance on the patterns and h. Based on the current soil e subsoil profile, the natural l, following site excavations e. Should groundwater be ge measures would then be site classification indicated nge by either cutting or filling the zone of influence of the
for each site cla zone of influence be articulated moisture condit	essification. All fo the of any service in accordance within accordance within a secondance within the second seco	ootings must found wit trenches, backfill zon vith current best prac	hin a uniform be es, retaining wa tice. Dwelling potings. Footing	earing stratum of suitable Ills or underground struct design must ensure suit	ystems that are appropriate strength/material, below the ures. Masonry walls should able drainage and uniform ned by a structural engineer
Maintenance 8 foundation soils	Footing Perfor and in particula evitable, and it d	mance' to comments ar in respect to maint	s about garder aining good su	ns, landscaping and tre rface drainage. It notes	Sheet BTF 18 'Foundation es on the performance of that minor cracking in most dation movements that can
Comments/ Limitations	informatio				ns and conclusions from the ty for such interpretations,
	Developm	ent specific geotechni	cal investigatior	ns must be undertaken.	
				ubsequent to the investig	
	Site prepa uncontrolle	•	nstruction shou	ld include removal of all	vegetation, topsoil and any
		must be placed unde warranted in those fill		ditions (AS 3798:2007), c	otherwise Class P conditions
	Some vari	ability in subsurface c	onditions must I	be anticipated.	
	of investig				vary considerably from time r seepages are highly likely
		excavation must be a tential site costs.	anticipated. It is	recommended that exca	vation depths be minimal to
		e site classification is ed from site and have			aterials/waste and stockpiles
		-		nspected by a geotechnic	-
	This repor	t must be read in conj	unction with the	attached "Limitations" ar	d notes "About this Report".
References	AS 2870:2	2011, Residential Slab	s and Footings,	Standards Australia.	
Attachmen	Explanato	og(s) Pit(s) 5,6			
			Dol Geotech	nics   Environm	Partners





#### CLIENT: PROJECT: LOCATION:

Capital Estate Developments Pty Ltd Proposed Residential Subdivision Stage 2 Denman North Estate, Denman Prospect **SURFACE LEVEL:** 571.0 AHD **EASTING:** 201226 **NORTHING:** 602447

PIT No: 5 PROJECT No: 88231.50 DATE: 3/8/2023 SHEET 1 OF 1

Γ		Description	. <u>0</u>	Sampling & In Situ Testing								
2	Depth (m)	of	Graphic Log	Type	Depth	ອ E E Comments ແ	Water	Dynamic Penetrometer Test (blows per mm)				
5		Strata	0	ту	De	Sar	Comments	-	5	10	15	20
u.		TOPSOIL FILL/Sandy SILT (ML): low plasticity, brown, fine to coarse grained sand, trace fine to coarse gravel, dry to moist, w <pl, fill<="" td="" topsoil=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></pl,>										
	- 0.1	Silty CLAY (CL): low plasticity, red orange brown, with fine to coarse sand, dry to moist, w <pl, hard,="" residual<="" td=""><td></td><td>D</td><td>0.2</td><td></td><td></td><td></td><td></td><td></td><td>• • • • • •</td><td></td></pl,>		D	0.2						• • • • • •	
	0.25	DACITIC IGNIMBRITE: fine to coarse grained, grey brown		D	0.2							
-	-	DACITIC IGNIMBRITE: fine to coarse grained, grey brown mottled orange brown, low to medium strength, highly to moderately weathered, highly fractured to fractured										
ł	- 0.4	Dit discontinued at 0.4m	n n n	—D—	-0.4-							
-		Pit discontinued at 0.4m -Bucket slow progress							-			
	-								-1			
-	-											
-	-								-			
F	_										• • • • • • • • •	

**RIG:** CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: ADFH/SK

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** Surface levels and coordinates are approximate only and must not be relied upon.

 SAMPLING & IN SITU TESTING LEGEND

 A
 Auger sample
 G
 Gas sample
 PID
 Photo ionisation detector (ppm)

 B
 Buik sample
 P
 Piston sample
 PID
 Photo ionisation detector (ppm)

 BLK
 Block sample
 U
 Tube sample (x mm dia.)
 PL(A) Point load axial test Is(50) (MPa)

 D
 Disturbed sample
 W
 Water seep
 S
 Standard penetration test

 E
 Environmental sample
 W
 Water seep
 V
 Shear vane (kPa)



#### CLIENT: PROJECT: LOCATION:

Capital Estate Developments Pty Ltd Proposed Residential Subdivision Stage 2 Denman North Estate, Denman Prospect **SURFACE LEVEL:** 570.0 AHD **EASTING:** 201246 **NORTHING:** 602450

PIT No: 6 PROJECT No: 88231.50 DATE: 2/8/2023 SHEET 1 OF 1

Γ			Description	U	Sampling & In Situ Testing								
R	Dept (m)	th	of	Graphic Log	e				Water	Dynamic Penetrometer Test (blows per mm)			
			Strata	<u>م</u> _	Type	Depth	Sample	Results & Comments	5	5	10	15	20
-	-		TOPSOIL FILL/Sandy SILT (ML): low plasticity, brown, fine to coarse grained sand, trace fine to coarse gravel, dry to moist, w <pl, fill<="" td="" topsoil=""><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td></pl,>							-			
	-	0.2-	Sandy Silty CLAY (CL-CI): low to medium plasticity, orange red brown, fine to coarse grained sand, with gravel, moist, w <pl, fill<="" hard,="" possibly="" td=""><td rowspan="2"></td><td rowspan="2">D</td><td rowspan="2">0.3</td><td></td><td>pp &gt;400</td><td></td><td>-</td><td></td><td></td><td></td></pl,>		D	0.3		pp >400		-			
	-	0.4 —	TUFF: fine to coarse grained, grey brown, with clay seams sand high strength seams, low to medium strength, highly to moderately weathered, highly fractured to fractured							-			
-	_	0.8			D	0.7				-			
569	-		Pit discontinued at 0.8m -Bucket slow progress							- 1	•		
2	-									-			
-	-									-			
-	-									-			
-	-									-		• • • • • •	

**RIG:** CAT 304C CR mini excavator fitted with a 300mm wide bucket

LOGGED: GM

SURVEY DATUM: ACT Stromlo

WATER OBSERVATIONS: No free groundwater observed

**REMARKS:** Surface levels and coordinates are approximate only and must not be relied upon.

 SAMPLING & IN SITU TESTING LEGEND

 A
 Auger sample
 G
 Gas sample
 PID
 Photo ionisation detector (ppm)

 B
 Buik sample
 P
 Piston sample
 PL(A) Point load axial test Is(50) (MPa)

 BLK Block sample
 U
 Tube sample (x mm dia.)
 PL(D) Point load diametral test Is(50) (MPa)

 C
 Core drilling
 W
 Water sample
 p
 Pocket penetrometer (kPa)

 D
 Disturbed sample
 V
 Water level
 V
 Shear vane (kPa)



