

## **APPENDIX 'A'**

### **LIST OF DOCUMENTS REFERRED TO:**

- Stage 1/Stage 2 Geo-Environmental Report (Ref: SWY/02r1) dated 2 February 2018 for the site prepared by ARP Chartered Consulting Engineers.
- Letter report (Ref: SWY/02/HMMjc) dated 12 March 2018 prepared by ARP Chartered Consulting Engineers.
- Letter report (Ref: SWY/02/OG) dated 9 December 2018 prepared by ARP Chartered Consulting Engineers.
- CIRIA C552 (2001) Contaminated Land Risk Assessment
- LQM Ltd. Safe for Use Levels (S4UL's)
- Category 4 Screening Levels
- BRE Special Digest 1, 'Concrete in Aggregate Ground'
- CIRIA C665 : 'Assessing Risks posed by Hazardous Ground Gases to Buildings'
- NHBC : 'Guidance on Evaluation of Development Proposals on Sites where Methane and Carbon Dioxide are present'

**CoDa Structures**

Consulting Civil & Structural Engineers  
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**PHASE 2 ENGINEERING & ENVIRONMENTAL  
ASSESSMENT  
FOR A RESIDENTIAL DEVELOPMENT AT THE  
FORMER MOUNT VERNON HOSPITAL,  
MOUNT VERNON ROAD, BARNSELY**

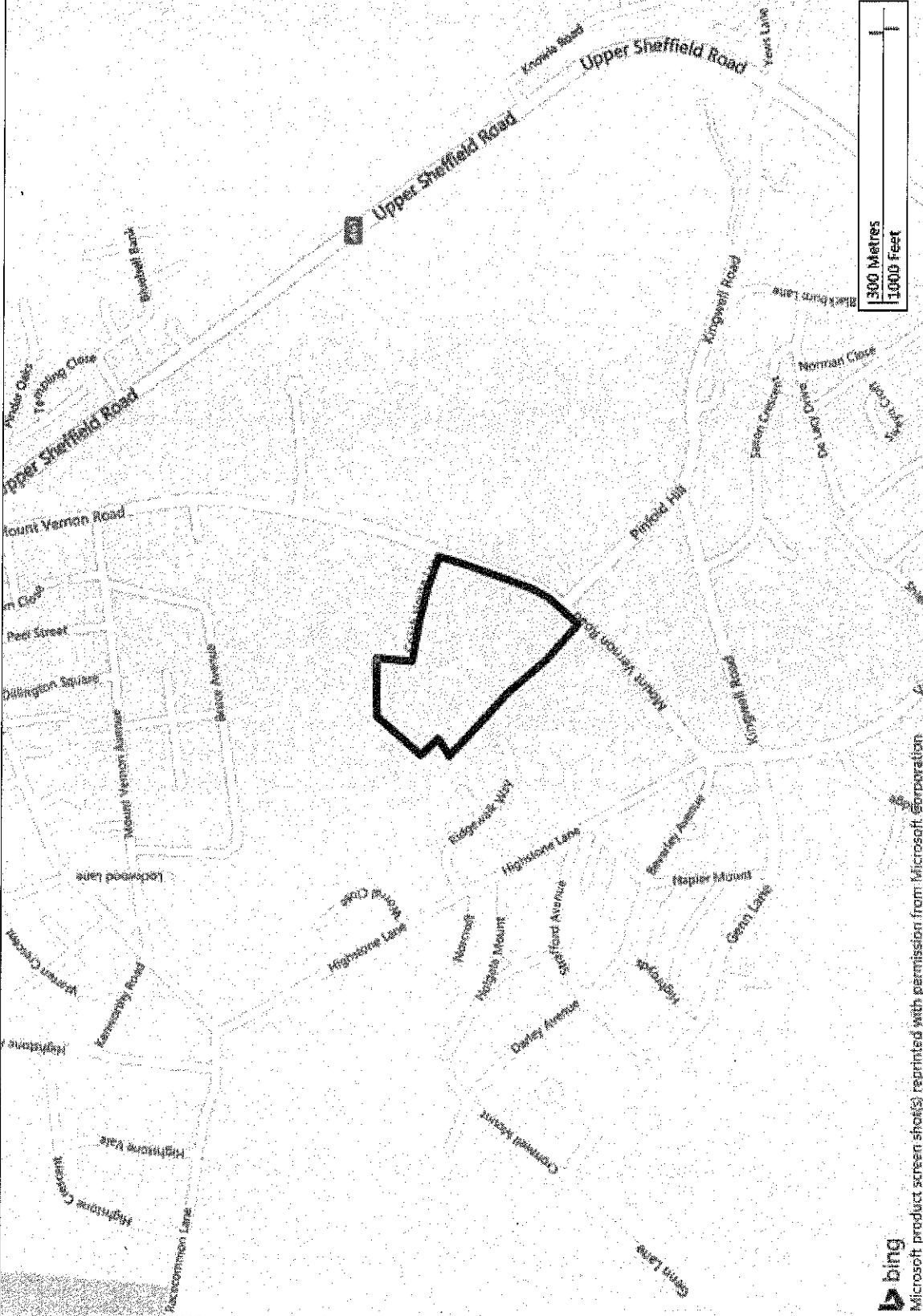
**APPENDIX B**

**SITE LOCATION PLAN - FIG. 1**



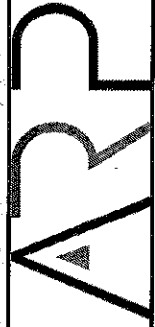
**Legend Key**

- Locations By Type - Empty
- Project Bounds - Project Bounds



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Project		Mount Vernon Hospital		Title		Site Location Plan	
Client		South West Yorkshire Partnership		Date		Scale	
				1:6500			
				Drawn		No	
				ARP		SWY/02	



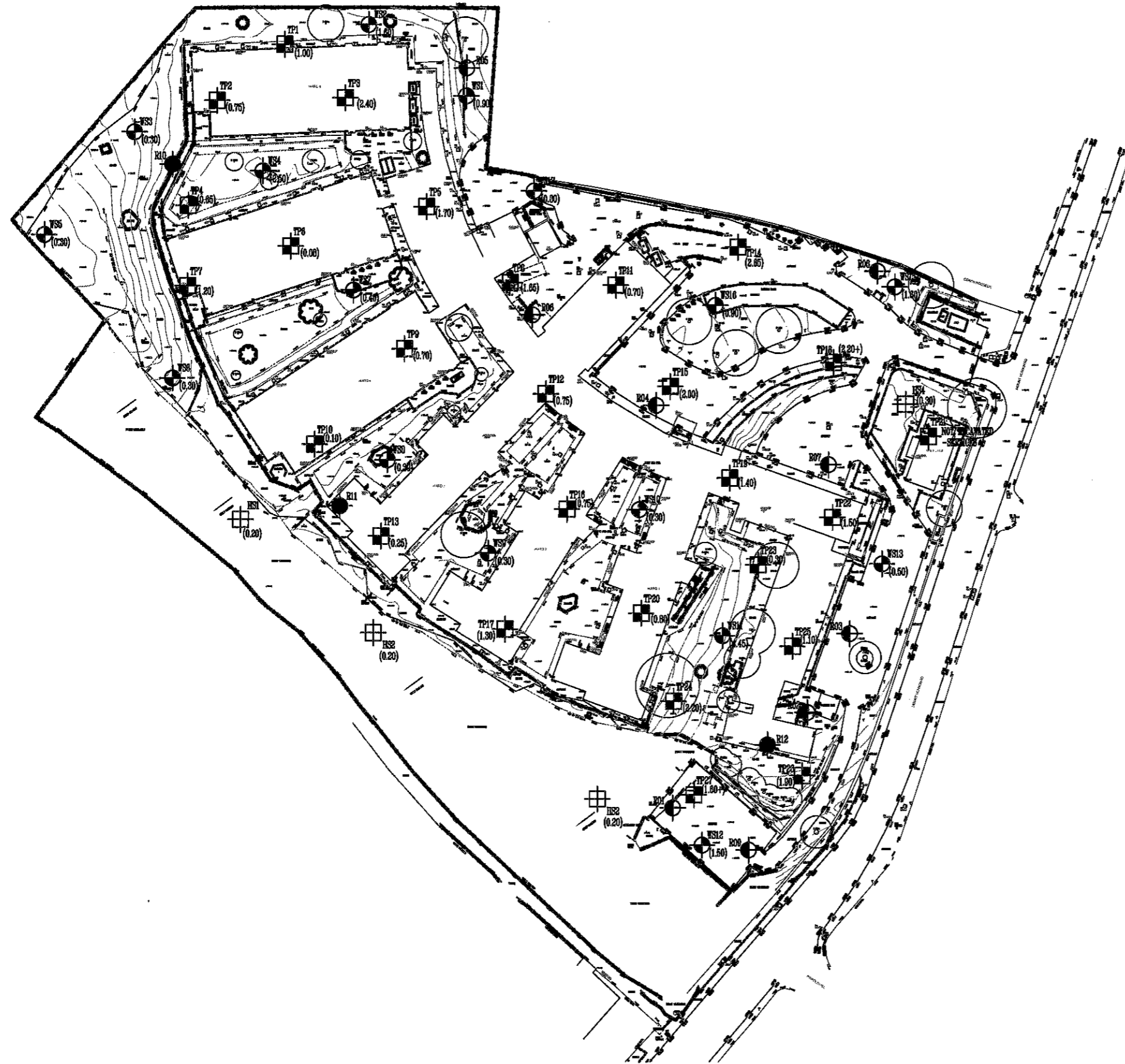
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**APPENDIX C**

**SITE TOPOGRAPHICAL SURVEY – FIG. 2**



- KEY**
- 
 WS1-WS17  
 Window Sampling Borehole sunk by ARP on 15 & 16 Nov. 2017
  - 
 HS1-HS4  
 Hand dug trial pit by ARP on 15 Nov. 2017
  - 
 R01-R09  
 Rotary borehole drilled by ARP on 14 and 16 November 2016
  - 
 TP1-TP27  
 Trial Pit excavated by CODA Structures on 23rd & 24 July 2020
  - 
 R10-R12  
 Rotary borehole drilled by CoDA Structures on 14 September 2020
- GW Denotes gas/ground water monitoring well  
 (0.50) Made ground thickness including topsoil

Rev.	Content	Date

Client	Orion Homes Ltd		
Project	Mount Vernon Road, Barnsley		
Title	Site Topographical Survey		
Drawn	RD	Date	22.07.20
Scale	1:500 @A1	Checked	JL
Dwg. No.	7861/Fig2		Rev.

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**APPENDIX D**

**SITE AERIAL PHOTOGRAPH**



**Legend Key**

- Locations By Type - Empty
- Project Bounds - Project Bounds



Project Mount Vernon Hospital	Title Aerial Photograph	Date	Scale 1:2000
		Drawn ARP	No SWY/02
Client South West Yorkshire Partnership			

# ARP

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MOUNT VERNON ROAD, BARNSELY**




**APPENDIX E**

**CODA STRUCTURES' TRIAL PIT LOGS**

					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE		Trial Pit Number <b>TP01</b>	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.10	D				(0.15) 0.15	MADE GROUND: topsoil.		
0.50	D				(0.70)	MADE GROUND: brown gravelly sand. Gravel sized fragments are sandstone.		
0.90	D				0.85 (0.15) 1.00	MADE GROUND: topsoil.		
1.40	D				(0.70)	Brown gravelly coarse SAND with medium cobble sized fragments of sandstone. Gravel is subangular coarse sandstone. Recovered as completely weathered sandstone.		
1.80	D				1.70 (0.70)	Medium strong to strong, thinly to medium bedded, brown slightly weathered to fresh, coarse grained SANDSTONE.		
2.30	D		24/07/2020: DRY		2.40	Complete at 2.40m		
Plan						Remarks Pit sides remained vertical and stable. No groundwater encountered. On completion backfilled with arisings.		
						Scale (approx) 1:25	Logged By DS/SJ	Figure No.



					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNESLEY, SOUTH YORKSHIRE		Trial Pit Number TP02		
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number	
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
0.10	D				(0.15) 0.15	MADE GROUND: brown slightly gravelly sand. Gravel sized fragments are stone, concrete and plastic.			
0.35	D				(0.35) 0.50	MADE GROUND: brown slightly sandy gravel sized and cobble sized fragments of sandstone.			
					(0.25) 0.75	Strong thinly to thickly bedded, brown, slightly weathered to fresh, coarse grained SANDSTONE.			
0.70	B		24/07/2020: DRY			Complete at 0.75m			
Plan						Remarks Slight collapse of pit sides from 0.00m to 0.50m. No groundwater encountered. On completion backfilled with arisings.			
						Scale (approx) 1:25		Logged By DS/SJ	Figure No.

					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE		Trial Pit Number <b>TP03</b>	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.15	D					MADE GROUND: brown coarse sand and gravel sized fragments of sandstone and occasional wood and concrete with medium cobble sized fragments of sandstone and low boulder sized fragments of sandstone.		
0.75	D				(1.95)			
1.50	D							
2.20	D				1.95 (0.45)	MADE GROUND: light brown and brown coarse sand and gravel sized fragments of sandstone with low cobble sized fragments of sandstone.		
2.80	D				2.40 (0.90)	Medium strong to strong thinly to thickly bedded, brown, moderately weathered to slightly weathered coarse grained SANDSTONE.		
3.20	D		24/07/2020:DRY		3.30	Complete at 3.30m		
Plan						Remarks Slight collapse of pit sides from 0.00m to 2.40m No groundwater encountered. On completion backfilled with arisings.		
						Scale (approx) 1:25	Logged By DS/SJ	Figure No.

					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNESLEY, SOUTH YORKSHIRE		Trial Pit Number TP04	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D				0.50 (0.50)	MADE GROUND: brown and dark brown gravelly medium to coarse sand with medium cobble sized fragments of sandstone. Gravel sized fragments are sandstone and occasional plastic, concrete and metal.		
0.60	D				0.50 (0.15) 0.65	MADE GROUND: brown gravelly sandy silty clay.		
0.80	D		24/07/2020:DRY		0.25 (0.25) 0.80	Strong to very strong, thinly to medium bedded, brown, fresh, coarse grained SANDSTONE with occasional micaceous bands.		
						Complete at 0.90m		
Plan						Remarks Slight collapse of pit sides from 0.00m to 0.65m No groundwater encountered. On completion backfilled with arisings.		
						Scale (approx) 1:25		Logged By DS/SJ
						Figure No.		

						Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNESLEY, SOUTH YORKSHIRE	Trial Pit Number TP05	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED	Job Number	
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED	Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.10	D				(0.20) 0.20	MADE GROUND: grey and brown gravelly coarse sand. Gravel sized fragments are concrete and occasional sandstone, plastic, tile and wood.		
0.50	D				(1.50)	MADE GROUND: brown sand and gravel sized fragments of sandstone and occasional brick with medium cobble sized fragments of sandstone.		
1.00	D				1.70	Strong to very strong, thinly to medium bedded, brown, fresh, coarse grained SANDSTONE.		
1.80	D		24/07/2020: DRY		(0.30) 2.00	Complete at 2.00m		
Plan						Remarks Slight collapse of pit sides from 0.00m to 1.70m. No groundwater encountered. On completion backfilled with arisings.		
						Scale (approx) 1:25	Logged By DS/SJ	Figure No.

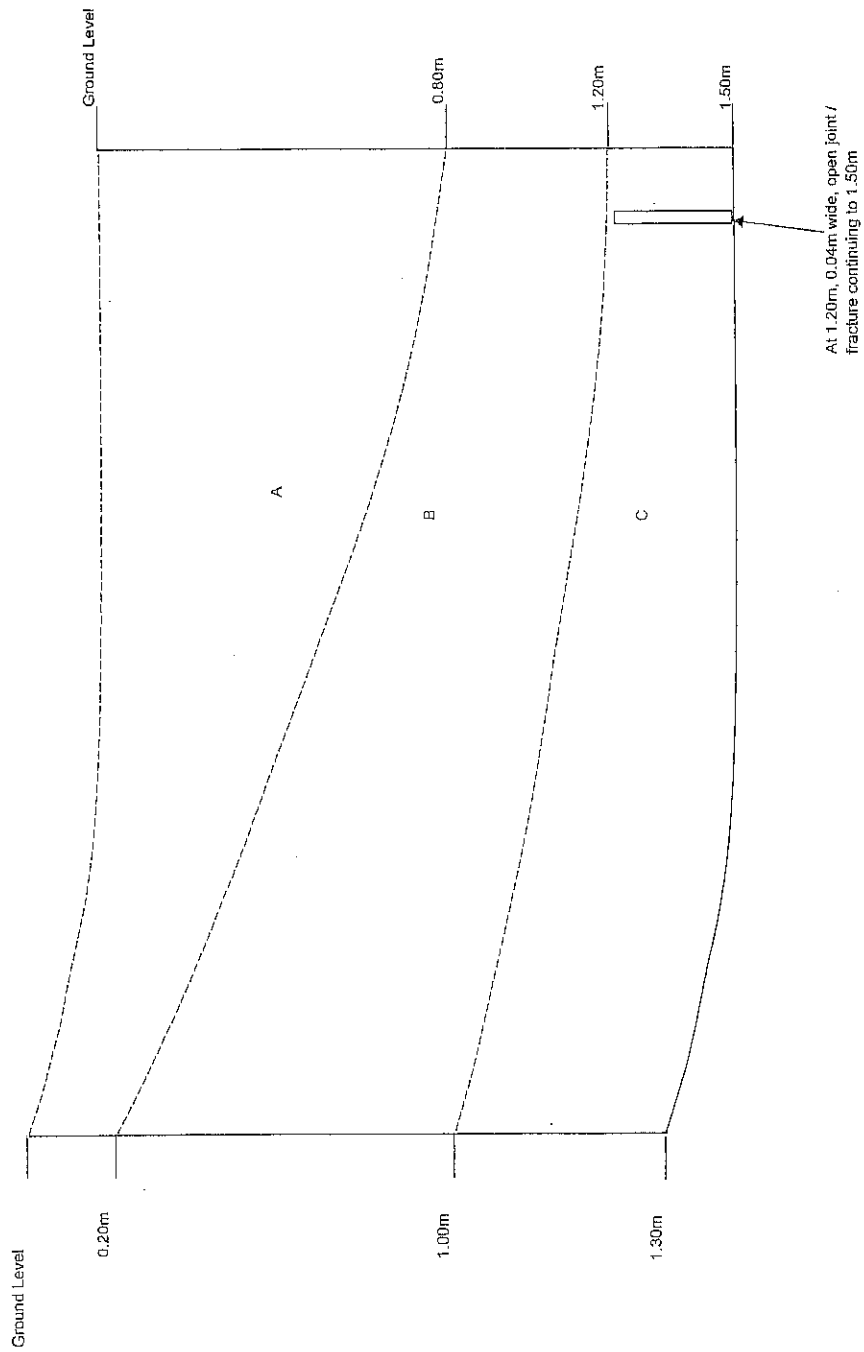
					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELEY, SOUTH YORKSHIRE		Trial Pit Number TP06	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend
0.05	D				(0.08) 0.08	MADE GROUND: grey sand and gravel sized fragments of concrete and stone.		
0.40	D				(0.82)	Brown gravelly coarse SAND. Gravel sized fragments are sandstone lithorelicts. Recovered as completely weathered sandstone.		
0.95	B				0.90	Very strong, medium, bedded, brown, coarse grained moderately weathered SANDSTONE with open fractures.		
					(0.70)	.... at 1.00m : 0.08m wide open joint/fracture, continuing to 1.60m		
			24/07/2020:DRY		1.60	Complete at 1.60m		
Plan					Remarks Slight collapse of pit sides. No groundwater encountered. On completion backfilled with arisings.			
					Scale (approx) 1:25		Logged By DS/SJ	Figure No.

					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE		Trial Pit Number <b>TP07</b>	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.10	D				0.02	MADE GROUND: gravelly topsoil. Gravel sized fragments are sandstone (A).		
0.60	D				(0.78)	MADE GROUND: brown sandy gravel sized, cobble sized and boulder sized fragments of sandstone (B).		
0.90	D				0.80	Strong, thinly to medium bedded, brown, coarse grained moderately weathered SANDSTONE with open fractures. (C).		
			24/07/2020: DRY		(0.70)	... at 1.20m : 0.04m wide open joint/fracture, continuing to 1.50m.		
					1.50	Complete at 1.50m		
						Remarks Slight collapse of pit sides 0.00m to 0.80m No groundwater encountered. On completion backfilled with arisings.		
						Scale (approx) 1:25	Logged By DS/SJ	Figure No.

Excavation Method: MECHANICAL EXCAVATOR		Dimensions:	Ground Level (mOD):	Site: MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELEY, YORKSHIRE	Trial Pit Number: TP07
Location: AS PLAN		Dates: 23/07/2020- 24/07/2020	Client: ORION HOMES LIMITED	Engineer: CODA STRUCTURES LIMITED	Job Number:  Sheet: 1 / 4

### SECTIONS & PLANS

#### Cross- Section



					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE		Trial Pit Number TP08	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00	D				0.05	MADE GROUND: grey slightly sandy coarse gravel sized fragments of concrete and occasional bituminous macadam.		
0.10	D				(0.15) 0.20	MADE GROUND: light brown to creamish brown gravel sized fragments of stone.		
0.50	D				(1.45)	MADE GROUND: brown gravelly coarse sand with medium cobble sized fragments of sandstone. Gravel sized fragments are sandstone.		
1.10	D					..... at 1.60m : slight hydrocarbon odour		
1.60	D				1.65	Medium strong to strong, thinly to medium bedded, brown, slightly weathered to fresh, coarse grained SANDSTONE.		
1.80	D				(0.55) 2.20	Complete at 2.20m		
			24/07/2020:DRY					
Plan						Remarks Slight collapse of pit sides from 0.00m to 1.65m No groundwater encountered. On completion backfilled with arisings.		
						Scale (approx) 1:25	Logged By DS/SJ	Figure No.

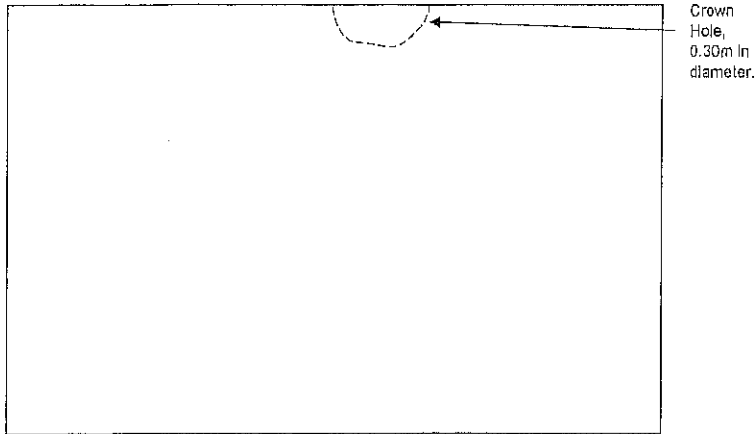
					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE		Trial Pit Number TP09	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Leger	Water
0.00	D				(0.10) 0.10	MADE GROUND: brown and grey gravelly coarse sand. Gravel sized fragments are limestone and sandstone.		
0.40	D				(0.60)	MADE GROUND: brown coarse sand with medium cobble sized fragments of sandstone and medium boulder sized fragments of sandstone.		
0.85	B				0.70	Medium strong to strong, thinly to medium bedded, brown, coarse grained, moderately weathered SANDSTONE.		
					(0.60)	... at 0.80m : apparent crown hole feature 0.30m in diameter extending approximately 1.10m sub-vertically		
			24/07/2020: DRY		1.30	Complete at 1.30m		
Plan					Remarks Slight collapse of pit sides from 0.00m to 0.70m No groundwater encountered. On completion backfilled with arisings.			
					Scale (approx)		Logged By	
					1:25		DS/SJ	
							Figure No.	

			Site: MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNESLEY, YORKSHIRE	Trial Pit Number: TP09
Excavation Method: MECHANICAL EXCAVATOR	Dimensions:	Ground Level (mOD):	Client: ORION HOMES LIMITED	Job Number:
	Location: AS PLAN	Dates: 23/07/2020- 24/07/2020	Engineer: CODA STRUCTURES LIMITED	Sheet: 2 / 4

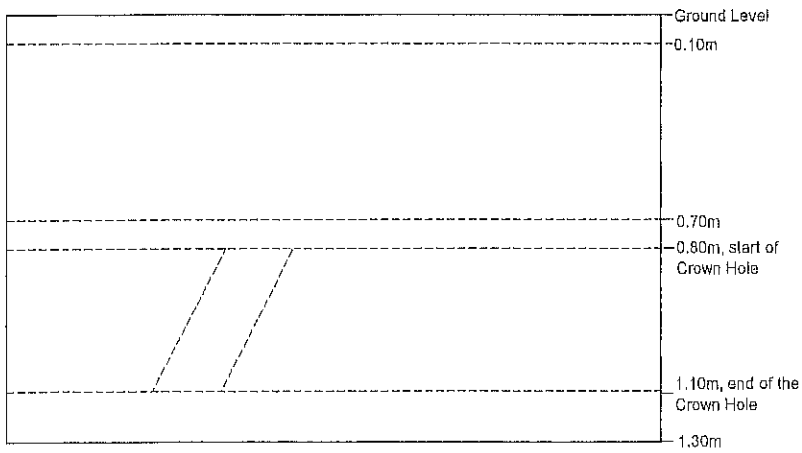
### SECTIONS & PLANS

Cross- Section



Plan View:





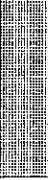
Cross Section:



					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE		Trial Pit Number <b>TP10</b>	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend
0.05	D				(0.10) 0.10	MADE GROUND: brown and grey coarse sand and gravel sized fragments of sandstone.		
0.25	D		24/07/2020: DRY		(0.20) 0.30	Very strong, medium bedded, brown, fresh, coarse grained SANDSTONE. Complete at 0.30m		
Plan						Remarks Pit sides remained vertical and stable. No groundwater encountered. On completion backfilled with arisings.		
						Scale (approx) 1:25	Logged By DS/SJ	Figure No.




					Site		Trial Pit Number					
Excavation Method MECHANICAL EXCAVATOR					Dimensions		Ground Level (mOD)		Client		Job Number	
					Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water				
0.20	D				0.05	MADE GROUND: brown and grey gravelly coarse sand. Gravel sized fragments are concrete and sandstone.						
					(0.65)	MADE GROUND: grey and brown sandy gravel sized and cobble sized fragments of stone.						
0.60	D		24/07/2020: DRY		0.70 0.75	Very strong, thickly, bedded, brown, fresh SANDSTONE.						
						Complete at 0.75m						
Plan						Remarks						
						Continual collapse of pit sides. No groundwater encountered. On completion backfilled with arisings.						
						Scale (approx)		Logged By		Figure No.		
1:25		DS/SJ										

					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNESLEY, SOUTH YORKSHIRE		Trial Pit Number TP12	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00	D				0.03	MADE GROUND: brown sand and gravel sized fragments of concrete and sandstone.		
0.40	D				(0.72)	Brown coarse SAND and sandstone GRAVEL with medium sandstone cobble content. (Possible made ground).		
0.80	D				0.75 (0.25)	Medium strong thinly bedded brown coarse grained, slightly weathered SANDSTONE occasional micaceous		
1.00	D				1.00 (0.30)	Strong medium bedded brown coarse grained fresh SANDSTONE.		
			24/07/2020: DRY		1.30	Complete at 1.30m		
Plan					Remarks			
					Slight collapse of pit sides from 0.00m to 0.75m No groundwater encountered. On completion backfilled with arisings.			
					Scale (approx)		Logged By	Figure No.
					1:25		DS/SJ	

					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNLEY, SOUTH YORKSHIRE		Trial Pit Number TP13	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.15	D				0.02 (0.23)	MADE GROUND: brown clayey sand.		
0.35	D				0.25 (0.15) 0.40	MADE GROUND: brown coarse sand and gravel sized fragments of sandstone. Medium strong thinly bedded brown highly weathered coarse grained micaceous SANDSTONE		
					(0.70)	Medium strong to strong, thinly to medium bedded, brown, moderately weathered, coarse grained SANDSTONE. (Possible fracture zone 0.60m wide in centre of pit).		
			24/07/2020: DRY		1.10	Complete at 1.10m		
Plan					Remarks Pit sides remained vertical and stable. No groundwater encountered. On completion backfilled with arisings.			
					Scale (approx) 1:25		Logged By DS/SJ	Figure No.

					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNESLEY, SOUTH YORKSHIRE		Trial Pit Number <b>TP14</b>	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D				(0.30)	MADE GROUND: brown and creamish brown sand and gravel sized fragments of stone and bituminous macadam.		
0.60	D				0.30 (0.90)	MADE GROUND: brown gravelly sand with medium cobble sized fragments of sandstone and brick and medium boulder sized fragments of sandstone. Gravel sized fragments are sandstone and occasional metal.		
1.10	D				1.20	MADE GROUND: brown sand and gravel sized fragments of brick and sandstone with medium cobble sized fragments of sandstone and brick. (Possible cement bound asbestos).		
1.70	D				(1.45)			
2.20	D					... at 2.30m : old clay drain		
			24/07/2020:DRY		2.65 2.65	Strong brown, fresh, coarse grained SANDSTONE. Complete at 2.65m		
Plan					Remarks Continual collapse of pit sides, unable to continue excavation. No groundwater encountered. On completion backfilled with arisings.			
					Scale (approx) 1:25		Logged By DS/SJ	Figure No.




					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE		Trial Pit Number <b>TP15</b>	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.30	D				(0.50)	MADE GROUND; dark brown gravelly sand with medium cobble sized fragments of sandstone. Gravel sized fragments are brick, sandstone and occasional metal.		
0.60	D				0.50	MADE GROUND: brown gravelly sand with medium cobble sized fragments of sandstone. Gravel sized fragments are sandstone.		
1.20	D				(1.50)			
					2.00	Strong, medium bedded, brown coarse grained, moderately weathered SANDSTONE with open joint fractures.		
					(1.10)	.... at 2.70m : 0.05m wide open joint/fracture, continuing to 3.10m		
			24/07/2020: DRY		3.10	Complete at 3.10m		
Plan						Remarks Slight collapse of pit sides from 0.00m to 2.00m No groundwater encountered. On completion backfilled with arisings.		
						Scale (approx) 1:25	Logged By DS/SJ	Figure No.

					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE		Trial Pit Number <b>TP16</b>	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.10	D				(0.75)	MADE GROUND: brown sand and gravel sized fragments of sandstone with medium cobble sized fragments of sandstone.		
0.70	D				0.75 (0.15)	Brown gravelly coarse SAND. Gravel sized fragments are sandstone lithorelicts. Recovered as completely weathered sandstone		
0.80	D				0.90			
1.20	D				(1.20)	Medium strong to strong, medium bedded, brown, moderately weathered coarse grained SANDSTONE with open joint fractures.  ..... at 1.30m : 0.08m wide open joint/fracture, continuing to 2.10m		
			24/07/2020:DRY		2.10	Complete at 2.10m		
Plan						Remarks Slight collapse of pit sides from 0.00m to 0.75m No groundwater encountered. On completion backfilled with arisings.		
						Scale (approx) 1:25	Logged By DS/SJ	Figure No.





					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNESLEY, SOUTH YORKSHIRE		Trial Pit Number TP17	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.10	D					MADE GROUND: brown sand and gravel sized fragments of sandstone with medium cobble sized fragments of sandstone.		
0.60	D				(1.30)	... at 1.00m : old metal water pipe		
1.10	D				1.30	Brown coarse SAND and sandstone GRAVEL with medium cobble sized fragments of sandstone. Recovered as weathered completely weathered sandstone.		
1.35	D				(0.15) 1.45			
			24/07/2020: DRY		(0.25) 1.70	Very strong, medium bedded, brown, fresh coarse grained SANDSTONE with open joint fractures.		
						Complete at 1.70m		
Plan						Remarks Slight collapse of pit sides from 0.00m to 1.20m No groundwater encountered. On completion backfilled with arisings.		
						Scale (approx) 1:25	Logged By DS/SJ	Figure No.

					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNESLEY, SOUTH YORKSHIRE		Trial Pit Number TP18	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.15	D				0.25	MADE GROUND: dark grey and dark brown ashy coarse sand and gravel sized fragments of sandstone.		
0.40	D				0.25	MADE GROUND: brown coarse sand and gravel sized fragments of sandstone with medium boulder sized fragments of sandstone.		
1.00	D				(1.95)			
2.00	D		24/07/2020: DRY		2.20	Complete at 2.20m		
Plan						Remarks Continual collapse of pit sides, unable to continue excavation. No groundwater encountered. On completion backfilled with arisings.		
						Scale (approx)	Logged By	Figure No.
						1:25	DS/SJ	

					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE		Trial Pit Number TP19		
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number	
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
0.40	D				(1.40)	MADE GROUND: brown sand and gravel sized fragments of sandstone and occasional concrete with low cobble sized fragments of sandstone.		[Hatched Pattern]	
0.90	D				1.40	Weak to medium strong, thinly to medium, bedded, moderately weathered medium to coarse grained SANDSTONE.			
1.45	D				(0.60)	Strong medium bedded, brown, fresh, coarse grained SANDSTONE.			
2.10	D		24/07/2020: DRY		2.00 (0.20) 2.20	Complete at 2.20m			
Plan						Remarks Slight collapse of pit sides from 0.00m to 1.40m. No groundwater encountered. On completion backfilled with arslings.			
						Scale (approx) 1:25		Logged By DS/SJ	Figure No.

					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE		Trial Pit Number TP20	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D				(0.80)	MADE GROUND: brown sand and gravel sized fragments of sandstone and occasional concrete with medium cobble sized fragments of sandstone.		
0.70	D				0.80	Brown coarse SAND.		
1.00	D				1.10	Weak to strong, thinly to medium bedded, fresh, coarse grained SANDSTONE.		
1.30	D		24/07/2020:DRY		1.40	Complete at 1.40m		
Plan						Remarks Slight collapse of pit sides from 0.00m to 0.80m. No groundwater encountered. On completion backfilled with arlsings.		
						Scale (approx) 1:25		Logged By DS/SJ
						Figure No. P20		

					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE		Trial Pit Number TP21	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend
			24/07/2020:		0.01	NOT EXCAVATED due to spoil mound and live electric cables. Complete at 0.01m		
Plan					Remarks			

					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE		Trial Pit Number TP22	
Excavation Method MECHAICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.10	D				(0.22) 0.22	MADE GROUND: dark brown and creamish brown slightly gravelly sand. Gravel sized fragments and bituminous macadam and sandstone.		
0.60	D				(0.58) 0.80	MADE GROUND: dark brown sand and gravel sized fragments of sandstone with low cobble sized fragments of sandstone.		
					(0.70) 1.50	MADE GROUND: brown slightly sandy gravel sized, cobble sized and boulder sized fragments of sandstone.		
			24/07/2020: DRY		1.55	Strong, thinly bedded, brown, fresh, coarse grained micaceous SANDSTONE. Complete at 1.55m		
Plan						Remarks Slight collapse of pit sides from 0.00m to 1.50m No groundwater encountered. On completion backfilled with arlsings.		
						Scale (approx) 1:25	Logged By DS/SJ	Figure No.

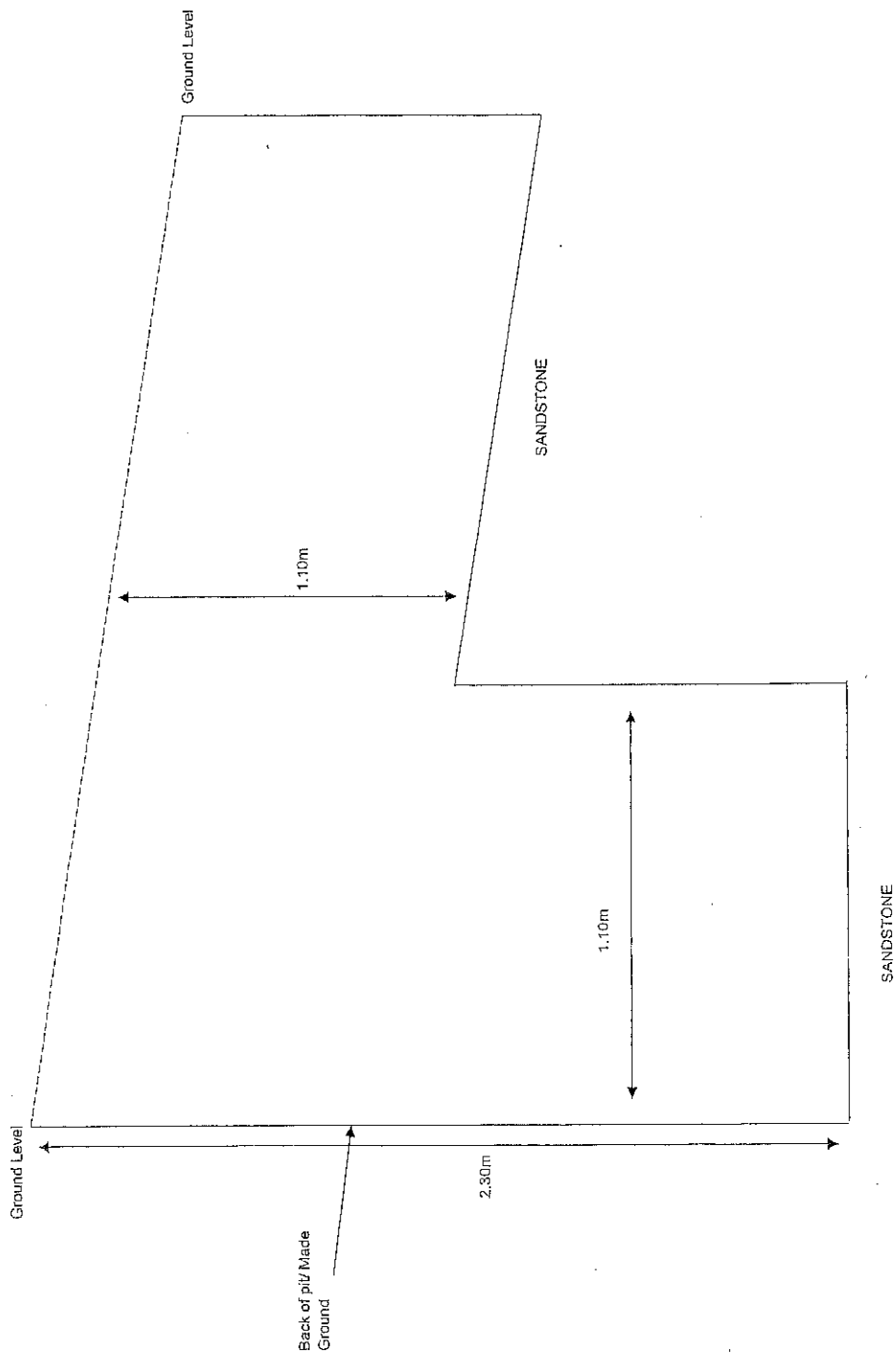
					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNESLEY, SOUTH YORKSHIRE		Trial Pit Number TP23	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number NE 5125
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.15	D				(0.30)	MADE GROUND: slightly sandy gravel sized and cobble sized fragments of concrete and rubble.		
0.50	D				(0.40)	Strong, thinly to medium, bedded, brown, fresh, coarse grained micaceous SANDSTONE.		
			24/07/2020: DRY		0.70	Complete at 0.70m		
Plan					Remarks Slight collapse of pit sides from 0.00m to 0.30m. No groundwater encountered. On completion backfilled with arisings.			
					Scale (approx) 1:25		Logged By DS/SJ	Figure No.

Excavation Method						Dimensions		Ground Level (mOD)		Site		Trial Pit Number
MECHANICAL EXCAVATOR						AS PLAN		23/07/2020-24/07/2020		MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE		TP24
Client						Location		Dates		Engineer		Job Number
ORION HOMES LIMITED						AS PLAN		23/07/2020-24/07/2020		CODA STRUCTURES LIMITED		1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water				
0.30	D				(0.40)	MADE GROUND: topsoil. (A).						
0.70	D				0.40	MADE GROUND: brown slightly sandy gravel sized and cobble sized fragments of sandstone. (B).						
1.50	D				(1.80)							
2.10	D				2.20	Strong, medium bedded, brown, fresh, coarse grained micaceous SANDSTONE. (C). Complete at 2.30m						
			24/07/2020: DRY		(0.10) 2.30							
Remarks						Slight collapse of pit sides from 0.00m to 2.20m. No groundwater encountered. On completion backfilled with arisings.						
Scale (approx)						Logged By		Figure No.				
1:25						DS/SJ						

			Site: MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, YORKSHIRE	Trial Pit Number: TP24
Excavation Method: MECHANICAL EXCAVATOR	Dimensions:	Ground Level (mOD):	Client: ORION HOMES LIMITED	Job Number:
	Location: AS PLAN	Dates: 23/07/2020- 24/07/2020		

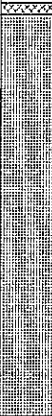
### SECTIONS & PLANS

Cross- Section



					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE		Trial Pit Number TP25	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.25	D				(0.50)	MADE GROUND: brown sand and gravel sized fragments of sandstone and occasional concrete with medium cobble sized fragments of sandstone.		
0.60	D				0.50 (0.60)	MADE GROUND: brown sand with medium cobble sized fragments of sandstone. (Possibly completely weathered bedrock).		
1.00	D				1.10	Strong, medium bedded, brown, fresh, coarse grained, micaceous SANDSTONE.		
1.20	D				(0.45)			
			24/07/2020: DRY		1.55	Complete at 1.55m		
Plan						Remarks Slight collapse of pit sides from 0.00m to 1.00m. No groundwater encountered. On completion backfilled with arisings.		
						Scale (approx)	Logged By	Figure No.
						1:25	DS/SJ	5

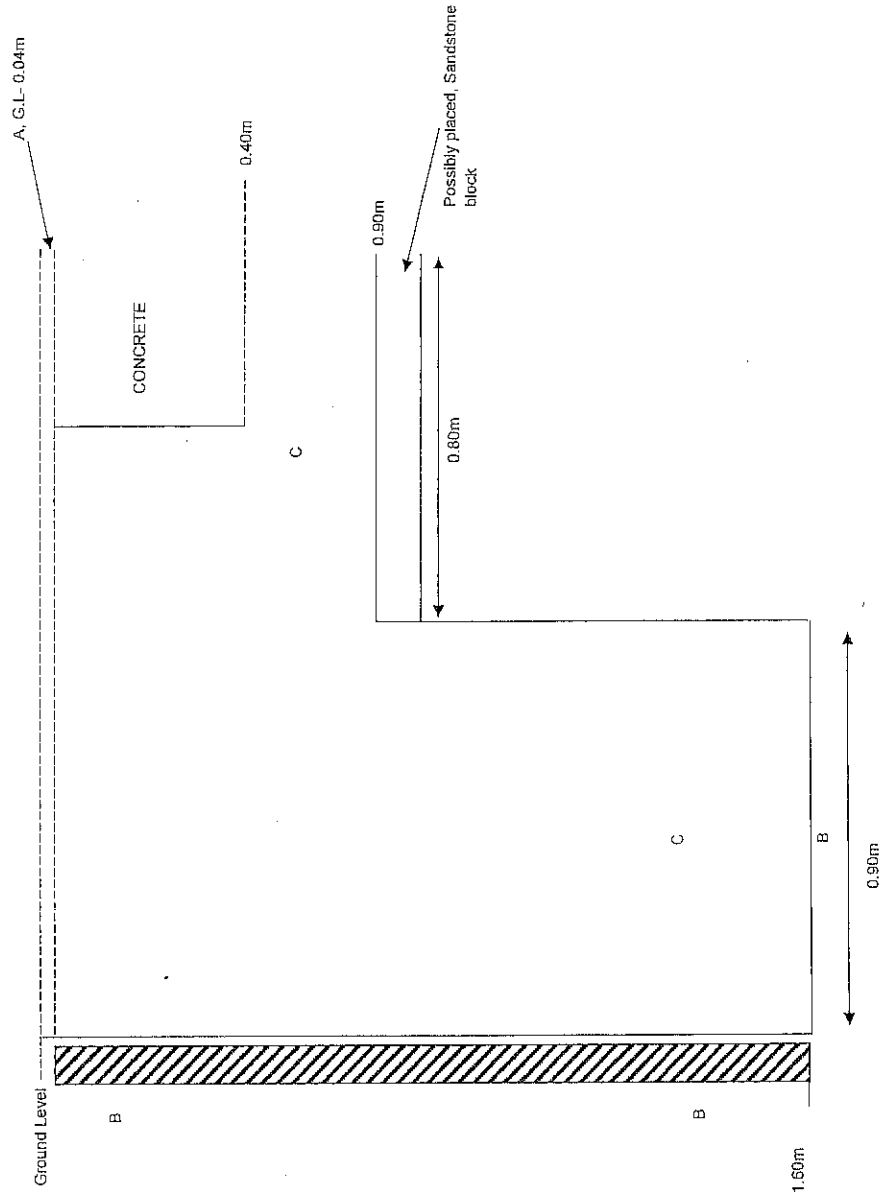
					Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE		Trial Pit Number TP26	
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED		Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.10	D				(0.15) 0.15	MADE GROUND: topsoil.		
0.30	D					MADE GROUND: dark brown sand and gravel sized fragments of sandstone and occasional concrete and tile with medium cobble sized fragments of sandstone and medium boulder sized fragments of sandstone.		
1.00	D				(1.45)			
1.50	D					... at 1.50m : possible cement bound asbestos		
1.75	D				1.60 (0.10) 1.70	Brown SANDSTONE. (Possible made ground, possible old basement floor).		
			24/07/2020: DRY		(0.20)	Brown coarse SAND with medium sandstone cobble content. (Completely weathered bedrock, possibly made ground).		
					1.90 1.90	Brown SANDSTONE. (Presumed bedrock).		
						Complete at 1.90m		
Plan					Remarks			
					Continual collapse of pit sides, unable to continue excavation. No groundwater encountered. On completion backfilled with arisings.			
					Scale (approx)		Logged By	Figure No.
					1:25		DS/SJ	3

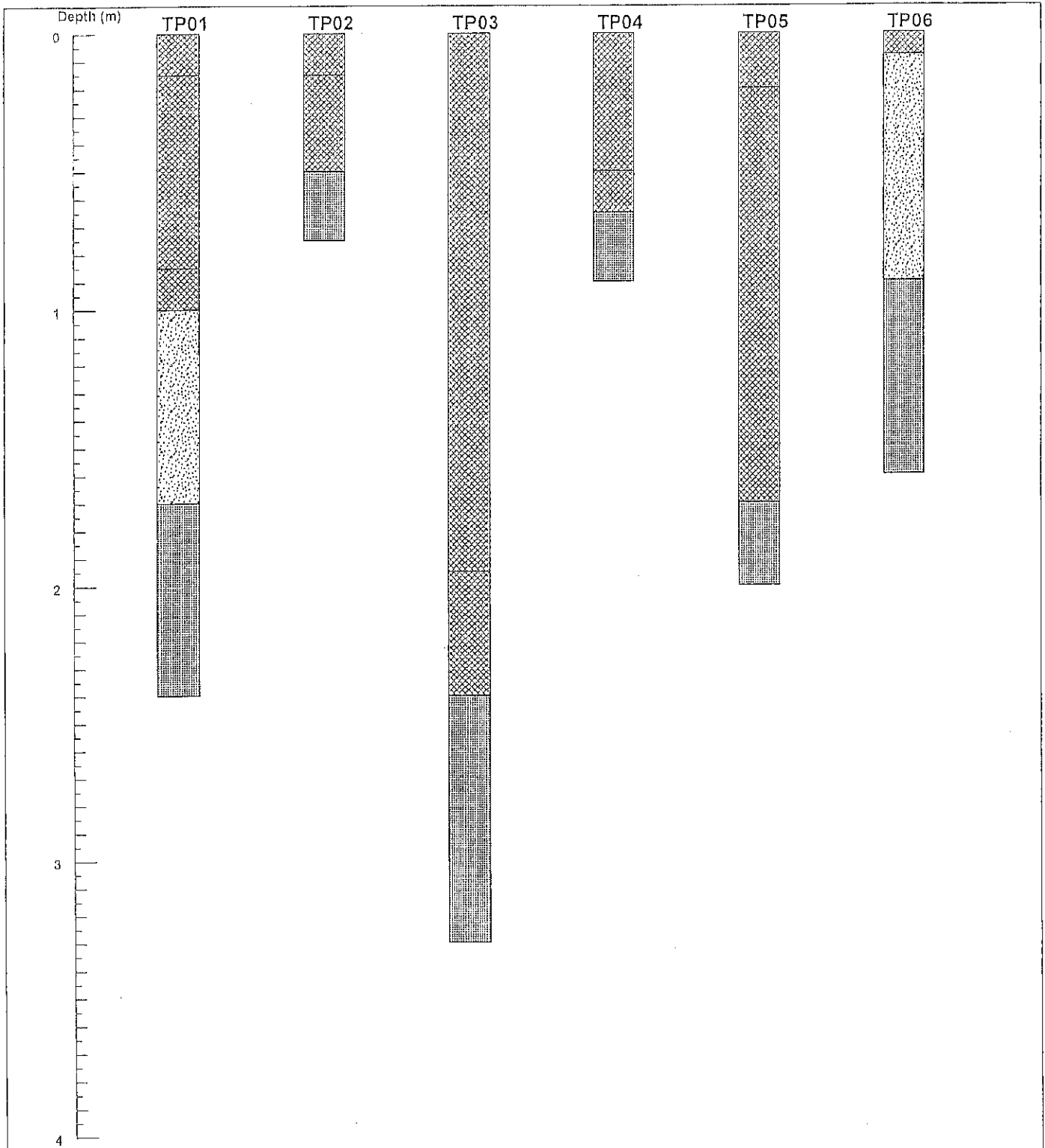
						Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE	Trial Pit Number TP27
Excavation Method MECHANICAL EXCAVATOR		Dimensions		Ground Level (mOD)		Client ORION HOMES LIMITED	Job Number
		Location AS PLAN		Dates 23/07/2020- 24/07/2020		Engineer CODA STRUCTURES LIMITED	Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend
0.00	D				0.04	MADE GROUND: brown and creamish brown sand and gravel sized fragments of sandstone and occasional bluish-grey macadam. (A).	
0.40	D				(1.36)	Strong, medium bedded, brown, coarse grained micaceous SANDSTONE. (B). Brown SAND and sandstone GRAVEL with medium sandstone cobble content. (Possibly made ground.) (C).	
1.40	D		24/07/2020: DRY		1.40	Complete at 1.60m	
						Remarks Slight collapse of pit sides from 0.00m to 1.10m No groundwater encountered. On completion backfilled with arisings.	
						Scale (approx) 1:25	Logged By DS/SJ
						Figure No.	

			Site: MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, YORKSHIRE	Trial Pit Number: TP27
Excavation Method:  MECHANICAL EXCAVATOR	Dimensions:	Ground Level (MOD):	Client:  ORION HOMES LIMITED	Job Number:
	Location:  AS PLAN	Dates: 23/07/2020 - 24/07/2020	Engineer:  CODA STRUCTURES LIMITED	Sheet:  4 / 4

SECTIONS & PLANS

Cross- Section

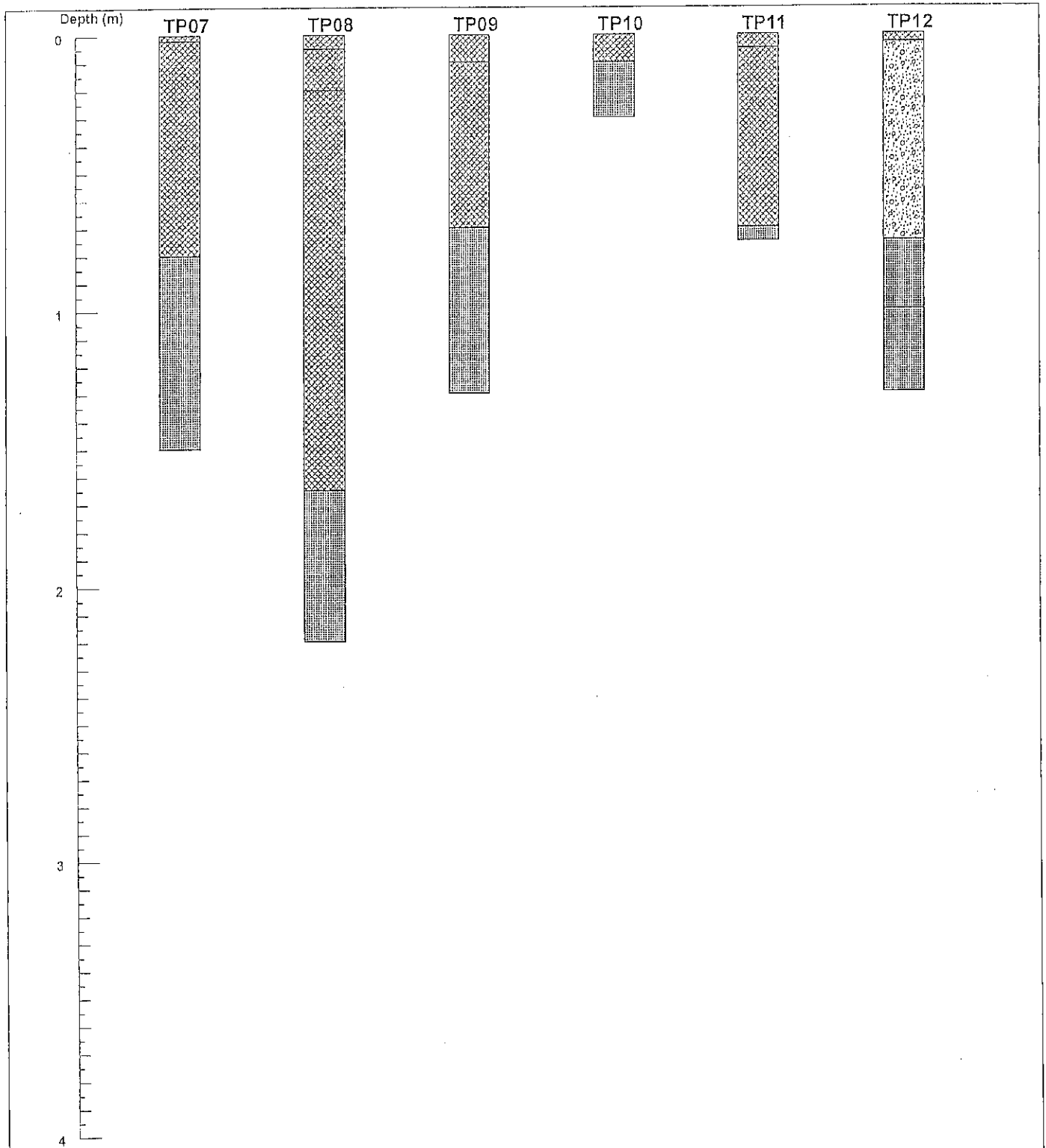




Key	
	Groundwater Strike
	Strike Rise Level
	MADE GROUND
	SAND
	Cobbly SAND
	Gravelly cobbly SAND
	Gravelly SAND
	SANDSTONE

**Nominal Section**

<b>Site</b> MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE	<b>Date Drawn</b> 19/08/2020	<b>Date Checked</b>	<b>Sheet</b> 1/5	<b>Job Number</b>
	<b>Client</b> ORION HOMES LIMITED	<b>Drawn By</b>	<b>Checked By</b>	<b>Scale</b> 1:20[V]
				<b>Figure No.</b>



**Key**

	Groundwater Strike		SAND
	Strike Rise Level		COBBLY SAND
	MADE GROUND		GRAVELLY COBBLY SAND
	GRAVELLY SAND		SANDSTONE

**Nominal Section**

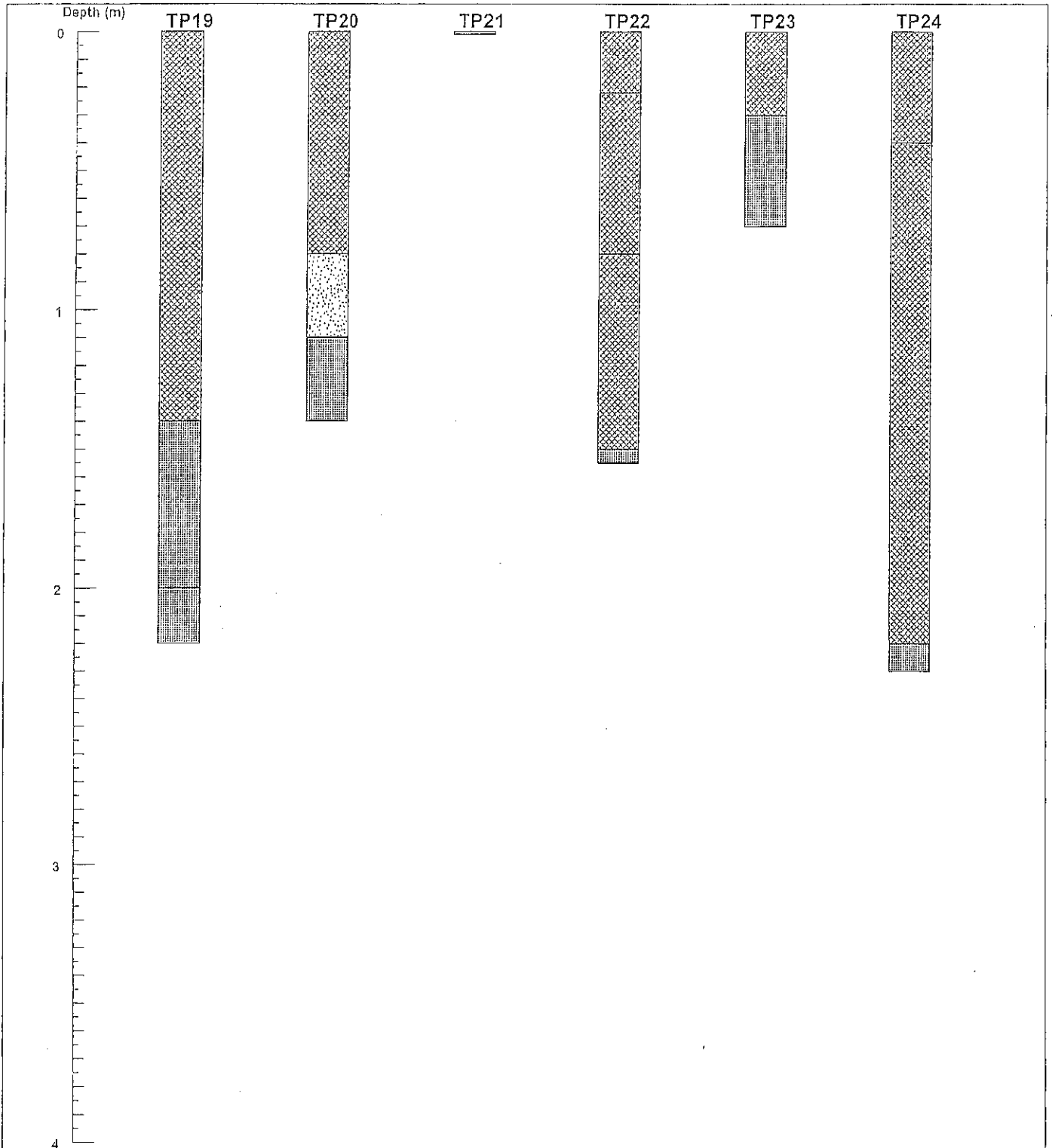
Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSLEY, SOUTH YORKSHIRE	Date Drawn 19/08/2020	Date Checked	Sheet 2/5	Job Number
	Client ORION HOMES LIMITED	Drawn By	Checked By	Scale 1:20[V]



Key	
	Groundwater Strike
	Strike Rise Level
	MADE GROUND
	Gravelly SAND
	SAND
	Cobbly SAND
	Gravelly cobbly SAND
	SANDSTONE

**Nominal Section**

<b>Site</b> MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE	<b>Date Drawn</b> 19/08/2020	<b>Date Checked</b>	<b>Sheet</b> 3/5	<b>Job Number</b>
	<b>Client</b> ORION HOMES LIMITED	<b>Drawn By</b>	<b>Checked By</b>	<b>Scale</b> 1:20[V]

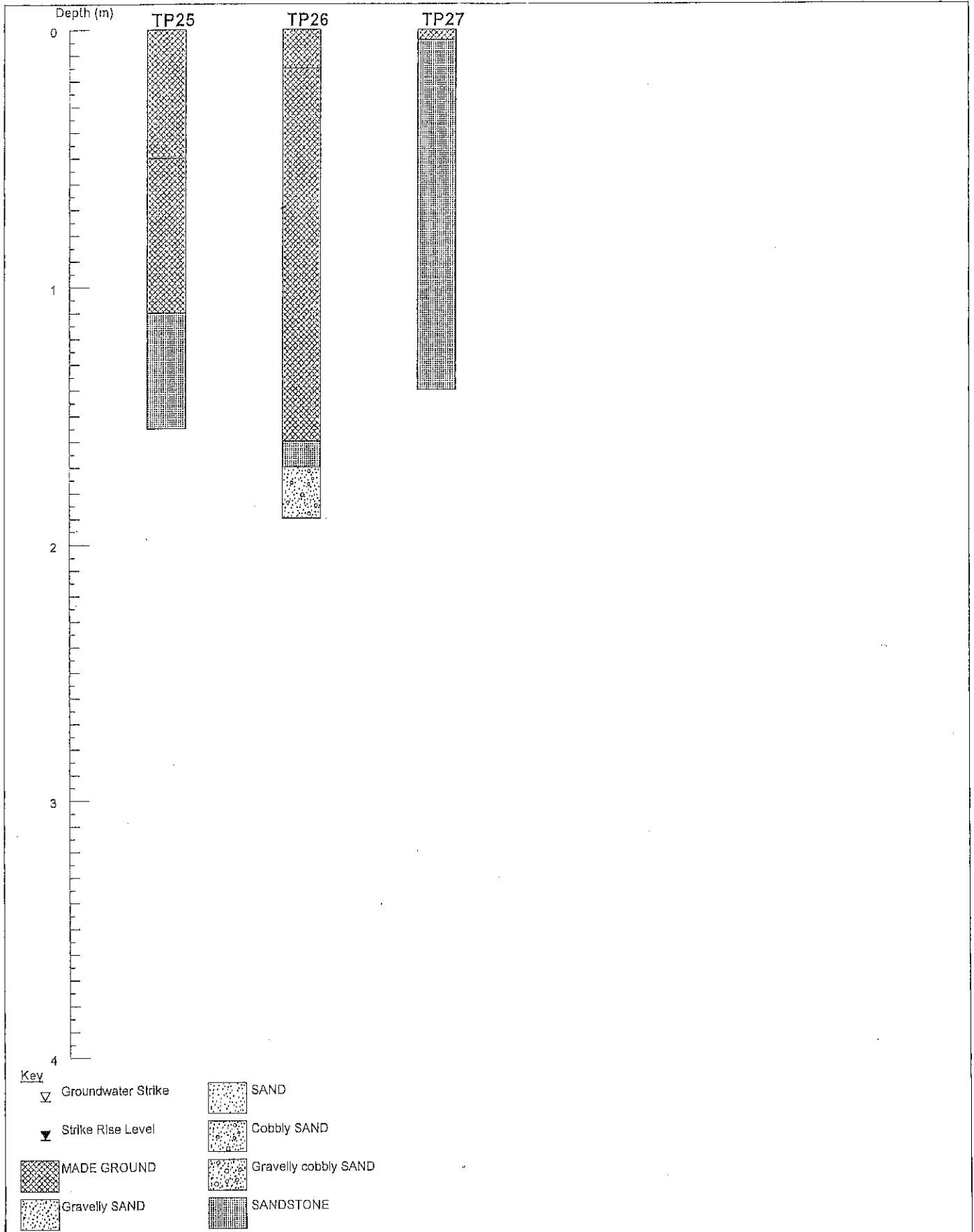


**Key**

- ▽ Groundwater Strike
- ▼ Strike Rise Level
- MADE GROUND
- Gravelly SAND
- SAND
- Cobbly SAND
- Gravelly cobbly SAND
- SANDSTONE

**Nominal Section**

<p><b>Site</b> MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE</p>	<p><b>Date Drawn</b> 19/08/2020</p>	<p><b>Date Checked</b></p>	<p><b>Sheet</b> 4/5</p>	<p><b>Job Number</b></p>
<p><b>Client</b> ORION HOMES LIMITED</p>	<p><b>Drawn By</b></p>	<p><b>Checked By</b></p>	<p><b>Scale</b> 1:20[V]</p>	<p><b>Figure No.</b></p>



Nominal Section

Site MOUNT VERNON HOSPITAL, MOUNT VERNON ROAD, BARNSELY, SOUTH YORKSHIRE	Date Drawn 19/08/2020	Date Checked	Sheet 5/5	Job Number
Client ORION HOMES LIMITED	Drawn By	Checked By	Scale 1:20[V]	Figure No.