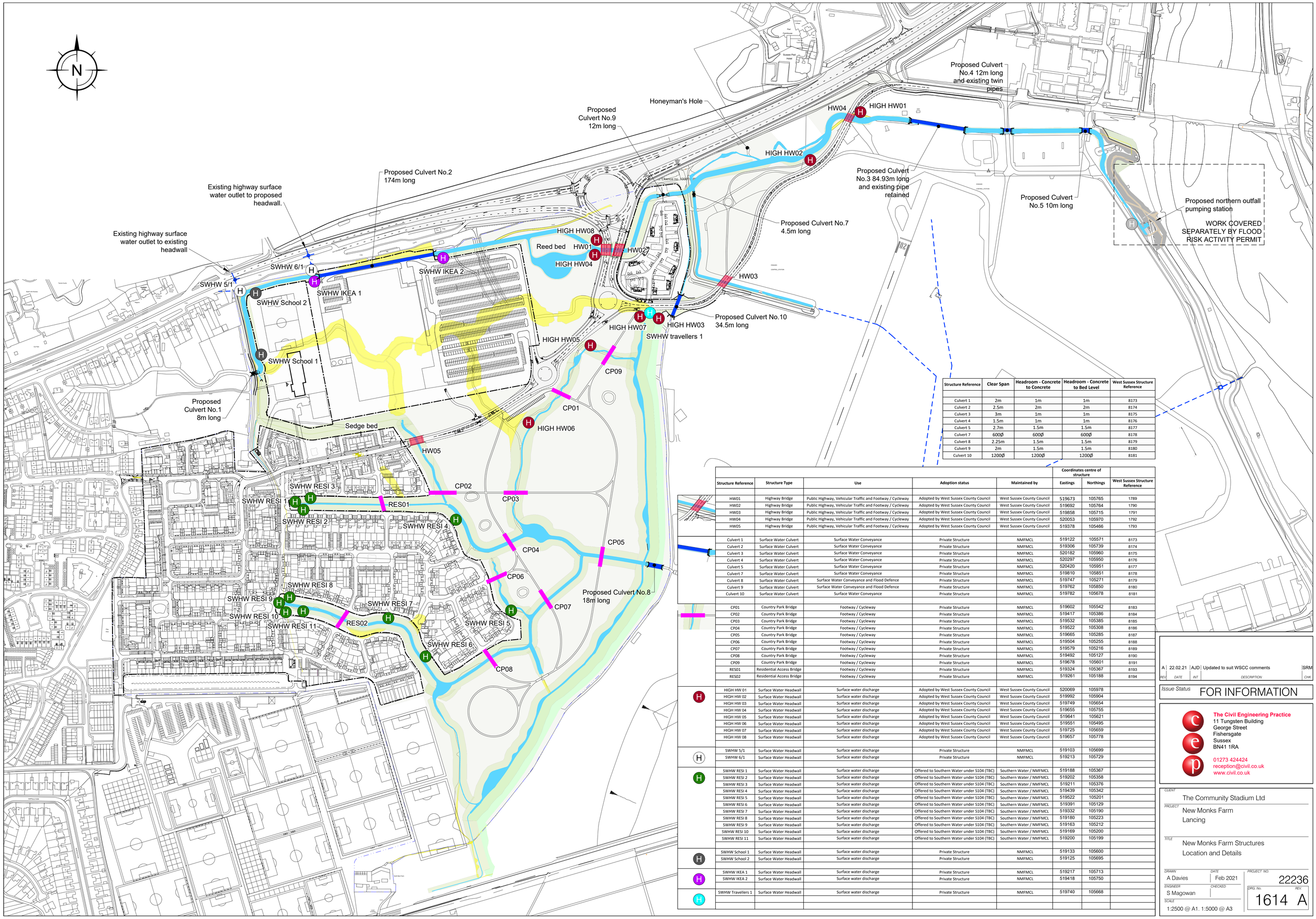

Structure Reference	Clear Span	Headroom - Concrete to Concrete	Headroom - Concrete to Bed Level	West Sussex Structure Reference
Culvert 1	2m	1m	1m	8173
Culvert 2	2.5m	2m	2m	8174
Culvert 3	3m	1m	1m	8175
Culvert 4	1.5m	1m	1m	8176
Culvert 5	2.7m	1.5m	1.5m	8177
Culvert 7	600Ø	600Ø	600Ø	8178
Culvert 8	2.25m	1.5m	1.5m	8179
Culvert 9	2m	1.5m	1.5m	8180
Culvert 10	1200Ø	1200Ø	1200Ø	8181

	Structure Reference	Structure Type	Use	Adoption status	Maintained by	Coordinates centre of structure		West Sussex Structure Reference
						Eastings	Northings	
	HW01	Highway Bridge	Public Highway, Vehicular Traffic and Footway / Cycleway	Adopted by West Sussex County Council	West Sussex County Council	519673	105765	1789
	HW02	Highway Bridge	Public Highway, Vehicular Traffic and Footway / Cycleway	Adopted by West Sussex County Council	West Sussex County Council	519692	105764	1790
	HW03	Highway Bridge	Public Highway, Vehicular Traffic and Footway / Cycleway	Adopted by West Sussex County Council	West Sussex County Council	519858	105715	1791
	HW04	Highway Bridge	Public Highway, Vehicular Traffic and Footway / Cycleway	Adopted by West Sussex County Council	West Sussex County Council	520053	105970	1792
	HW05	Highway Bridge	Public Highway, Vehicular Traffic and Footway / Cycleway	Adopted by West Sussex County Council	West Sussex County Council	519378	105466	1793
	Culvert 1	Surface Water Culvert	Surface Water Conveyance	Private Structure	NMFMCL	519122	105571	8173
	Culvert 2	Surface Water Culvert	Surface Water Conveyance	Private Structure	NMFMCL	519306	105739	8174
	Culvert 3	Surface Water Culvert	Surface Water Conveyance	Private Structure	NMFMCL	520182	105960	8175
	Culvert 4	Surface Water Culvert	Surface Water Conveyance	Private Structure	NMFMCL	520297	105950	8176
	Culvert 5	Surface Water Culvert	Surface Water Conveyance	Private Structure	NMFMCL	520420	105951	8177
	Culvert 7	Surface Water Culvert	Surface Water Conveyance	Private Structure	NMFMCL	519810	105851	8178
	Culvert 8	Surface Water Culvert	Surface Water Conveyance and Flood Defence	Private Structure	NMFMCL	519747	105271	8179
	Culvert 9	Surface Water Culvert	Surface Water Conveyance and Flood Defence	Private Structure	NMFMCL	519762	105850	8180
	Culvert 10	Surface Water Culvert	Surface Water Conveyance	Private Structure	NMFMCL	519782	105678	8181
	CP01	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519602	105542	8183
	CP02	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519417	105386	8184
	CP03	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519532	105385	8185
	CP04	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519522	105308	8186
	CP05	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519665	105285	8187
	CP06	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519504	105255	8188
	CP07	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519579	105216	8189
	CP08	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519492	105127	8190
	CP09	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519678	105601	8191
	RES01	Residential Access Bridge	Footway / Cycleway	Private Structure	NMFMCL	519324	105367	8193
	RES02	Residential Access Bridge	Footway / Cycleway	Private Structure	NMFMCL	519261	105188	8194
H	HIGH HW 01	Surface Water Headwall	Surface water discharge	Adopted by West Sussex County Council	West Sussex County Council	520069	105978	
	HIGH HW 02	Surface Water Headwall	Surface water discharge	Adopted by West Sussex County Council	West Sussex County Council	519992	105904	
	HIGH HW 03	Surface Water Headwall	Surface water discharge	Adopted by West Sussex County Council	West Sussex County Council	519749	105654	
	HIGH HW 04	Surface Water Headwall	Surface water discharge	Adopted by West Sussex County Council	West Sussex County Council	519655	105755	
	HIGH HW 05	Surface Water Headwall	Surface water discharge	Adopted by West Sussex County Council	West Sussex County Council	519641	105821	
	HIGH HW 06	Surface Water Headwall	Surface water discharge	Adopted by West Sussex County Council	West Sussex County Council	519551	105495	
	HIGH HW 07	Surface Water Headwall	Surface water discharge	Adopted by West Sussex County Council	West Sussex County Council	519725	105659	
	HIGH HW 08	Surface Water Headwall	Surface water discharge	Adopted by West Sussex County Council	West Sussex County Council	519657	105778	
H	SWHW 5/1	Surface Water Headwall	Surface water discharge	Private Structure	NMFMCL	519103	105699	
	SWHW 6/1	Surface Water Headwall	Surface water discharge	Private Structure	NMFMCL	519213	105729	
H	SWHW RESI 1	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519188	105367	
	SWHW RESI 2	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519202	105358	
	SWHW RESI 3	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519211	105376	
	SWHW RESI 4	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519439	105342	
	SWHW RESI 5	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519522	105201	
	SWHW RESI 6	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519391	105129	
	SWHW RESI 7	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519332	105190	
	SWHW RESI 8	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519180	105223	
	SWHW RESI 9	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519163	105212	
	SWHW RESI 10	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519169	105200	
	SWHW RESI 11	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519200	105199	
H	SWHW School 1	Surface Water Headwall	Surface water discharge	Private Structure	NMFMCL	519133	105600	
	SWHW School 2	Surface Water Headwall	Surface water discharge	Private Structure	NMFMCL	519125	105695	
H	SWHW IKEA 1	Surface Water Headwall	Surface water discharge	Private Structure	NMFMCL	519217	105713	
	SWHW IKEA 2	Surface Water Headwall	Surface water discharge	Private Structure	NMFMCL	519418	105750	
H	SWHW Travellers 1	Surface Water Headwall	Surface water discharge	Private Structure	NMFMCL	519740	105668	

REV	DATE	INT	DESCRIPTION	CHK
A	22.02.21	AJD	Updated to suit WSCC comments	SRM

Issue Status: FOR INFORMATION

The Civil Engineering Practice
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CLIENT: The Community Stadium Ltd

PROJECT: New Monks Farm
Lancing

TITLE: New Monks Farm Structures
Location and Details

DRAWN	DATE	PROJECT NO.
A Davies	Feb 2021	22236
ENGINEER: S Magowan	CHECKED	
SCALE: 1:2500 @ A1. 1:5000 @ A3	DRG. No. 1614	REV. A

APPENDIX C – IDEALISED STRUCTURE

The following idealised structure is considered (output from LUSAS bridge).

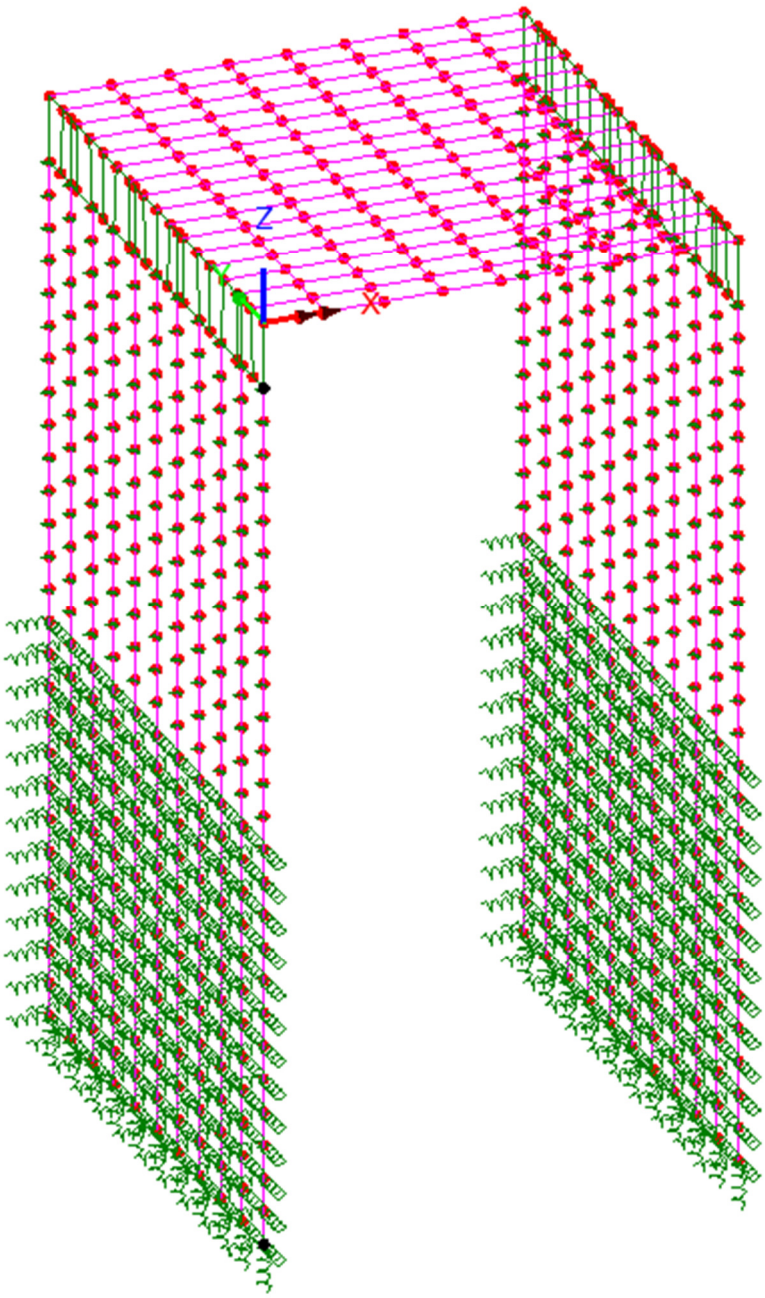

Figure 1 – Model output from LUSAS Bridge.

APPENDIX D – GEOTECHNICAL REPORT

Supplementary Investigation Report 18452/SIR_R27 dated September 2020:

i. Borehole log for BH54, BH53;
ii. CPT record for CPT 201;

Further details on request.

LEGEND

Existing Boreholes

NMF BH01 (20m)
New Monks Farm Borehole location and depth

DC=4.8m Depth to Chalk

NTG BH3 (20m)
New Training Ground Borehole location and depth

Abstraction Borehole

Road Bridge

Pedestrian Bridge

New Monks Farm Land Ownership boundary

Proposed Boreholes

RESI BH01
Residential Borehole location

COM BH11
COM Borehole location

STW BH21
Sewage Treatment Works Borehole location

TRAV BH31
Travellers Site Borehole location

EMB BH41
Embankment Borehole location

BRD BH51
Bridge Borehole location

HIGH BH61
Highway Borehole location

CP BH71
Country Park Borehole location

WAT BH81
Watercourse Re-alignment Borehole location

TG BH91
Training Ground Borehole location

PBR BH101
Pedestrian Bridge Borehole location

CP BH74A Boreholes to be extended to a depth of 30m



NOTES:

1. All dimensions to be checked on site. All details and dimensions relating to sub-Contractors work must be checked and agreed between the sub-Contractor or supplier and the general Contractor.

2. This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and specification.

3. The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.

4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.

Residential Site Boreholes			
REF	EASTINGS	NORTHINGS	GRD LVL (m)AOD
RESI BH01	519065.852	105167.276	
RESI BH02	519191.730	105418.679	
RESI BH03	519346.697	105269.562	
RESI BH04	519451.829	105195.999	
RESI BH05	519368.793	105416.784	
RESI BH06	519034.094	105236.390	
RESI BH07	519195.248	105262.330	

Commercial Site Boreholes			
REF	EASTINGS	NORTHINGS	GRD LVL (m)AOD
COM BH11	519285.597	105704.864	
COM BH12	519379.460	105650.373	
COM BH13	519379.284	105548.382	
COM BH14	519496.487	105724.461	

Sewage Treatment Works Boreholes			
REF	EASTINGS	NORTHINGS	GRD LVL (m)AOD
STW BH21	519669.233	105502.000	
STW BH22	519705.467	105437.785	

Travellers Site Boreholes			
REF	EASTINGS	NORTHINGS	GRD LVL (m)AOD
TRAV BH31	519718.684	105713.722	

Embankment Boreholes			
REF	EASTINGS	NORTHINGS	GRD LVL (m)AOD
EMB BH41	519488.755	104876.572	
EMB BH42	519760.987	105459.787	
EMB BH43	519766.569	105678.453	

Bridge Boreholes			
REF	EASTINGS	NORTHINGS	GRD LVL (m)AOD
BRD BH51	519635.748	105635.272	
BRD BH52	519610.781	105614.510	
BRD BH53	519425.413	105477.782	
BRD BH54	519390.393	105469.537	
BRD BH55	519195.112	105467.996	
BRD BH56	519188.772	105506.018	

Highway Boreholes			
REF	EASTINGS	NORTHINGS	GRD LVL (m)AOD
HIGH BH61	519694.332	105775.175	
HIGH BH62	519472.726	105491.685	
HIGH BH63	519539.519	105535.196	
HIGH BH64	519657.474	105666.617	

Country Park Boreholes			
REF	EASTINGS	NORTHINGS	GRD LVL (m)AOD
CP BH71	519576.994	105422.682	
CP BH72	519469.390	105441.102	
CP BH73	519527.870	104993.421	
CP BH74	519663.873	105188.103	

Watercourse Realignment Boreholes			
REF	EASTINGS	NORTHINGS	GRD LVL (m)AOD
WAT BH81	519166.476	105593.832	

Training Ground Boreholes			
REF	EASTINGS	NORTHINGS	GRD LVL (m)AOD
TG BH91	519392.353	104972.267	
TG BH92	519403.517	104888.547	

Pedestrian Bridge Boreholes			
REF	EASTINGS	NORTHINGS	GRD LVL (m)AOD
PBR BH101	519655.624	105624.636	
PBR BH102	519646.078	105594.958	
PBR BH103	519583.876	105540.432	
PBR BH104	519607.715	105517.792	
PBR BH105	519548.955	105372.848	
PBR BH106	519512.510	105386.490	
PBR BH107	519431.075	105391.855	
PBR BH108	519397.370	105384.907	
PBR BH109	519327.027	105360.605	
PBR BH110	519317.395	105378.161	
PBR BH111	519513.388	105314.573	
PBR BH112	519523.737	105297.034	
PBR BH113	519520.751	105253.322	
PBR BH114	519489.418	105242.316	
PBR BH115	519573.342	105222.309	
PBR BH116	519586.600	105207.383	
PBR BH117	519663.253	105271.024	
PBR BH118	519667.772	105303.335	
PBR BH119	519561.166	105090.340	
PBR BH120	519585.770	105103.611	
PBR BH121	519261.782	105201.494	
PBR BH122	519251.277	105178.222	
PBR BH123	519501.602	105112.154	
PBR BH124	519483.916	105136.949	

REV	DATE	INT	DESCRIPTION	CHK
C	07.10.16	AJD	Boreholes to be extended indicated COM BH14 added, TRAV BH31 moved	
B	14.07.16	AJD	Travellers site moved, CP BH73 and 74 added COM BH14 added, TRAV BH31 moved	
A	12.07.16	AJD	Renumbering and setting out added	

Issue Status PRELIMINARY

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the civil engineering practice

CLIENT: New Monks Farm Development Ltd

PROJECT: New Monks Farm
Lancing

TITLE: Site Layout
Site Investigation - Boreholes

DRAWN	DATE	PROJECT NO.
A Davies	June 2016	22236
ENGINEER	CHECKED	DRG No. / REV
G Waller		2602 C

SCALE: 1:2000 @ A1 1:4000 @ A3

Made Ground (MG)
Alluvium (ALV)
Head (HEAD) – Not encountered
Raised Beach Deposits (RBDU) – Not encountered
Newhaven Chalk Formation (NCK)

The ground conditions encountered in the trial holes are summarised in Table 2.2.

Table 2.2 Ground Conditions

Strata	Epoch	Depth Encountered (m bgl)		Typical Thickness (m)	Typical Description
		Top	Base		
MG	Recent	G.L.	1.10 – 6.40	3.60	Soft to frim orangey grey slightly gravelly sandy silty CLAY.
ALV (1)	Holocene	1.40 – 6.50	4.00 – 16.50	4.71	Soft dark grey slightly gravelly slightly silty CLAY.
ALV (2)	Holocene	2.50 – 11.00	4.90 – 16.00[1, 2]	6.00	Dark grey gravelly clayey fine SAND.
ALV (2)	Holocene	10.00	15.00	5.00	Soft to firm light brown mottled blue slightly silty sandy CLAY..
NCK	Santonian	4.20 – 16.50	10.00[1,2] - 30.10[1,2]	Not Proven	Off-white weathered CHALK recovered as fine to coarse intact block chalk and rare fine to medium angular flint in a clayey matrix.

Note: [1] Final depth of trial hole. [2] Base of strata not encountered

2.4 Ground Conditions Encountered in Trial Holes

The ground conditions encountered in trial holes have been described below in descending order. The engineering logs are presented in Appendix A.1.

2.4.1 Made Ground

Soils described as Made Ground were encountered in all thirty-eight trial holes from ground level to depths ranging between 1.10m bgl (PBR BH110) and 6.40m bgl (HIGH BH64).

The Made Ground typically comprised soft to frim orangey grey slightly gravelly sandy silty CLAY. Sand was fine to medium. Gravel was fine angular to sub-angular brick, chalk and flint. Occasional plastic and glass fragments were also recorded.

The depths of Made Ground have been included in Table 2.3.

Table 2.3 Final Depth of Made Ground

Trial Hole	Strata	Depth (m bgl)	Trial Hole	Strata	Depth (m bgl)
PBR BH101	MG	4.50	PBR BH120	MG	1.70
PBR BH102	MG	3.00	PBR BH121	MG	2.00

extended to greater depth in order to bypass these unsuitable soils. Excavations must be checked by a suitable person prior to concrete being poured.

Considering the type of development, a piled foundation solution was considered the most suitable for the construction of both pedestrian and vehicular bridges. Shallow foundations must be in general considered for the construction of the highways.

4.3.1 Piled Foundations

Where adopted, piled foundations must be taken through any Made Ground and Alluvium into suitable strength soils of the Newhaven Chalk Formation.

The construction of a piled foundation is a specialist job with the actual pile working load depending on the pile type and installation method. Prior to finalising the foundation design the advice from a reputable contractor who is familiar with the ground and groundwater conditions present at the site should be sought.

The vertical load capacities are provided for varying diameters and lengths of bored piles taken into the Newhaven Chalk Formation, based on SPT “N” values and must only be used for preliminary design purposes. These values have been calculated for the worst-case scenario, which modelled the Newhaven Chalk Formation at variable depth, as the surface of the chalk was observed dipping downwards from west to east.

The depth of Made Ground was observed to be frequently greater than 3.00m bgl. Alluvium is likely to increase the load on the pile by negative skin friction, this is due to potential large settlements within the Alluvium arising after any loading, including changes in effective stress, which due to adhesion between the soil and the shaft of the pile, increases the load on the pile.

A factor of safely of 1.5 was applied to the shaft where chalk was encountered and a factor of safety of 10 to the base and depicted by the design lines outlined in Appendix C.1.

The bearing values given in Appendix C.1 are applicable to single piles. Where piles are to be constructed in groups the bearing value of each individual pile should be reduced by a factor of about 0.8 and a calculation made to check the factor of safety against block failure.

An example of preliminary pile service capacities taken from the table presented in Appendix D.1 is as follows:

For a pile of 25.00m in length and 0.45m in diameter, a preliminary service capacity of 800kN has been calculated. Actual pile working loads will be dependent upon the piling technique adopted

To prevent necking of the green concrete, temporary casing may be required where the pile passes through the Made Ground or Alluvium and below the groundwater table (if encountered). To achieve the full bearing value a pile should penetrate the bearing stratum by at least five times the pile diameter.

No allowance has been made for negative skin friction that could be generated where piles pass through Made Ground and Alluvium deposits underlying the site. The negative skin friction must be applied to the pile working load and must not be factored.

4.4 Subsurface Concrete

Sulphate concentration measured in 2:1 water/soil extracts fell into Class **DS-1** of the BRE Special Digest 1 2005, *'Concrete in Aggressive Ground'.* Table C2 of the Digest indicated ACEC (Aggressive Chemical Environment for Concrete) site classifications of **AC-1**. The tests recorded water soluble sulphate within the Made Ground at **0.03g/l and 0.04g/l** with pH values of **8.35 and 8.42.** In the Alluvium results of **0.02g/l to 0.04g/l** with pH values of **7.46 and 8.90** were seen, and in the Newhaven Chalk Formation levels of **0.03g/l and 0.04g/l** with pH values of **7.86 and 8.61** were seen. The classification given was determined using the mobile groundwater case, in the view of groundwater being encountered. The laboratory results are presented in Appendix B.3.

Concrete to be placed in contact with soil or groundwater must be designed in accordance with the recommendations of Building Research Establishment Special Digest 1 2005, *'Concrete in Aggressive Ground'* taking into account any possible exposure of potentially pyrite bearing natural ground and the pH of the soils.

4.5 Excavations

Shallow excavations in the Made Ground/Topsoil and Alluvium are likely to be marginally stable in the short term at best.

Deeper excavations taken into the Newhaven Chalk Formation are likely to be stable in the short term, depending on the thickness of overlying Alluvium. Unsupported earth faces formed during excavation may be liable to collapse without warning and suitable safety precautions should therefore be taken to ensure that such earth faces are adequately supported or battered back to a safe angle of repose before excavations are entered by personnel.

Excavations beneath the groundwater table are likely to be unstable and dewatering of foundation trenches may be necessary.

4.6 Pavements

California Bearing Ratio (CBR) laboratory tests were performed on three near surface samples from the Made Ground at depths of between 0.40m bgl to 1.20m bgl.

soils LIMITED Geotechnical & Environmental Consultants

Soils Limited
Newton House, Cross Road, Tadworth KT20 5SR
Tel: 01737 814221 Email: admin@soilslimited.co.uk

Borehole Log

Borehole No. **BRD BH53**
Sheet 1 of 2

Project Name: New Monks Farm,	Project No.: 15666	Co-ords: E519425.28 N105477.72	Hole Type CP
Location: LANCING		Level: 6.18m AOD	Scale 1:50
Client: New Monks Farm Development LTD		Dates: 11-08-2016 - 12-08-2016	Logged By JH

Well	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.10	6.08		Turf over TOPSOIL.
		0.25	D					Firm orange brown slightly clayey gravelly SILT. Gravel is fine to coarse sub-angular flint and rare brick and concrete. Occasional roots. MADE GROUND.
		0.40 - 0.60	B					
		1.00	D					
		1.20	B					
		1.20	CPT	N=8 (2,3/2,2,2,2)	1.30	4.88		Brown slightly clayey gravelly SILT. Gravel is fine to medium sub-angular brick, concrete and flint. occasional white roots MADE GROUND.
		2.10	B					
		2.10	CPT	N=10 (2,3/2,3,3,2)				
		3.00	B		2.90	3.28		Firm brownish green and black gravelly silty CLAY. Gravel is fine to coarse sub-angular brick and concrete. MADE GROUND.
		3.00	CPT	N=11 (2,4/3,3,2,3)				
		4.00	B					
		4.00	CPT	N=6 (2,1/2,1,1,2)				
		4.80	D					
		5.00 - 5.45	U	Ublow=56	5.00	1.18		Soft to firm brown mottled grey slightly silty CLAY. frequent white roots. ALLUVIUM (1).
		5.45	D					
		6.00	D					
		6.50	D		6.40	-0.22		Very soft dark grey and brown slightly silty very sandy CLAY. Sand is fine to medium. Organic odour. ALLUVIUM (1).
		6.50	SPT	0 (1 for 450mm/0 for 0mm)				
		7.50	D					
		8.00 - 8.45	U	Ublow=20				
		8.45	D		8.50	-2.32		Very loose dark grey and brown slightly clayey fine to medium SAND. Organic odour. ALLUVIUM (2).
		9.50	B					
		9.50	SPT	0 (1 for 450mm/0 for 0mm)				

Continued on Next Sheet

General Remarks:

1 Hour 30 minutes day work hand dug inspection pit to 1.20m bgl. Casing details from G.L. to 14.00m bgl.

Groundwater Remarks:

No groundwater encountered. Water added at 9.50m bgl. Water standing at 5.60m bgl at end of shift.

Borehole Type
CP: Cable Percussive
WS: Windowless Sampler
RC: Rotary Cored

Sample Types
D: Disturbed
B: Bulk
J: Jar
W: Water
U: Undisturbed

In-Situ Testing
SPT: Split spoon - Standard Penetration Test
CPT: Cone - Standard Penetration Test

Soils Limited
Newton House, Cross Road, Tadworth KT20 5SR
Tel: 01737 814221 Email: admin@soilslimited.co.uk

Borehole Log

Borehole No. **BRD BH53**
Sheet 2 of 2

Project Name: New Monks Farm,	Project No.: 15666	Co-ords: E519425.28 N105477.72	Hole Type CP
Location: LANCING		Level: 6.18m AOD	Scale 1:50
Client: New Monks Farm Development LTD		Dates: 11-08-2016 - 12-08-2016	Logged By JH

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		10.50	D					Very loose dark grey and brown slightly clayey fine to medium SAND. Organic odour. ALLUVIUM (2).
		11.00 11.00	D SPT	0 (1 for 450mm/0 for 0mm)				
		12.00	D					
		12.50 - 12.95	U	Ublow=35				
		12.95	D					
		13.50 - 13.95	B		13.50	-7.32		Medium dense grey sandy clayey fine to coarse sub-angular flint GRAVEL. Sand is fine to medium. ALLUVIUM (2).
		14.00 14.00	B CPT	N=15 (1,3/4,3,4,4)				
		14.50 - 15.20	B		14.40	-8.22		Off-white and yellow weathered, structureless CHALK recovered as fine to coarse block chalk and occasional fine to medium angular flint in a clayey matrix. Grade Dc. NEWHAVEN CHALK FORMATION.
		15.50 15.50	D SPT	N=8 (1,1/2,2,2,2)				
					16.00	-9.82		End of Borehole at 16.00m

11 12 13 14 15 16 17 18 19 20

General Remarks:
1 Hour 30 minutes day work hand dug inspection pit to 1.20m bgl. Casing details from G.L. to 14.00m bgl.

Groundwater Remarks:
No groundwater encountered. Water added at 9.50m bgl. Water standing at 5.60m bgl at end of shift.

Borehole Type
CP: Cable Percussive
WS: Windowless Sampler
RC: Rotary Cored

Sample Types
D: Disturbed
B: Bulk
J: Jar
W: Water
U: Undisturbed

In-Situ Testing
SPT: Split spoon - Standard Penetration Test
CPT: Cone - Standard Penetration Test

soils LIMITED
Geotechnical & Environmental Consultants

Soils Limited
Newton House, Cross Road, Tadworth KT20 5SR
Tel: 01737 814221 Email: admin@soilslimited.co.uk

Borehole Log

Borehole No. **BRD BH54**
Sheet 1 of 2

Project Name: New Monks Farm,	Project No.: 15666	Co-ords: E519391.45 N105469.89	Hole Type CP
Location: LANCING		Level: 4.24m AOD	Scale 1:50
Client: New Monks Farm Development LTD		Dates: 15-08-2016	Logged By TR

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.10	4.14		Turf over topsoil. TOPSOIL.
		0.25	D					Soft dark brown slightly gravelly slightly sandy SILT. Sand is fine. Gravel is fine to coarse sub-angular flint and chalk. Occasional plastic fragments. Frequent fine rootlets. MADE GROUND
		0.40 - 0.60	B					
		1.00	D					
		1.20	B		1.10	3.14		
		1.20	CPT	N=6 (2,2/1,2,1,2)				Soft dark brownish grey gravelly sandy CLAY. Gravel is fine to coarse sub-angular brick, flint and chalk . Sand is fine to medium. Occasional plastic and tile fragments. Occasional roots. MADE GROUND.
		2.10	B					
		2.10	CPT	N=5 (1,/1,1,2,1)				
		3.00	B					
		3.00	CPT	N=6 (1,/1,1,2,2)				
		3.50	D		3.40	0.84		Very soft to soft dark orangey grey slightly gravelly sandy silty CLAY. Sand is fine to medium sub-angular flint and chalk. Occasional iron staining and roots. ALLUVIUM (1).
		4.00 - 4.45	U	Ublow=28				
		4.45 - 4.65	B					
		5.00	D					
		5.00	SPT	1 (1 for 225mm/1 for 150mm)				
					5.50	-1.26		Very soft dark greenish grey slightly silty sandy CLAY. Sand is fine. ALLUVIUM (1) .
		6.00	D					
		6.50	D					
		6.50	SPT	0 (1 for 450mm/0 for 0mm)				
		7.50	D					
		8.00 - 8.45	U	Ublow=17				
		8.50 - 8.90	B		8.50	-4.26		Greyish white weathered structureless CHALK recovered as fine to medium intact block chalk in a slightly sandy clayey matrix. Occasional bands of fine to medium angular flint. Sand is medium. NEWHAVEN CHALK FORMATION.
		9.50	D					
		9.50	SPT	N=5 (1,1/2,1,1,1)				

Continued on Next Sheet

General Remarks:

1 Hour 30 minutes day work hand dug inspection pit to 1.20m bgl. Roots observed to 5.50m bgl. Casing details:150mm G.L. to 14.50m bgl.

Groundwater Remarks:

No groundwater encountered.

Borehole Type
CP: Cable Percussive
WS: Windowless Sampler
RC: Rotary Cored

Sample Types
D: Disturbed
B: Bulk
J: Jar
W: Water
U: Undisturbed

In-Situ Testing
SPT: Split spoon - Standard Penetration Test
CPT: Cone - Standard Penetration Test

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Borehole Log

Borehole No. **BRD BH54** Sheet 2 of 2

Project Name: New Monks Farm,	Project No.: 15666	Co-ords: E519391.45 N105469.89	Hole Type CP
Location: LANCING		Level: 4.24m AOD	Scale 1:50
Client: New Monks Farm Development LTD		Dates: 15-08-2016	Logged By TR

Well	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
		10.50 10.60 - 10.90	D B					Greyish white weathered structureless CHALK recovered as fine to medium intact block chalk in a slightly sandy clayey matrix. Occasional bands of fine to medium angular flint. Sand is medium. NEWHAVEN CHALK FORMATION.
		11.00 11.00	D SPT	N=12 (1,1/3,3,3,3)				
		12.00 - 12.40	B					
		12.50 12.50	B SPT	N=10 (4,3/2,3,2,3)				
		13.50	D		13.50	-9.26		White structureless CHALK recovered as medium intact block chalk in a clayey matrix. Occasional medium to coarse sub-angular flint. NEWHAVEN CHLK FORMATION.
		14.00 - 14.45	B	Ublow=80				
		14.50 14.50	D SPT	N=9 (2,2/2,2,2,3)				
					15.00	-10.76		End of Borehole at 15.00m

11 12 13 14 15 16 17 18 19 20

General Remarks:

1 Hour 30 minutes day work hand dug inspection pit to 1.20m bgl. Roots observed to 5.50m bgl. Casing details:150mm G.L. to 14.50m bgl.

Groundwater Remarks:

No groundwater encountered.

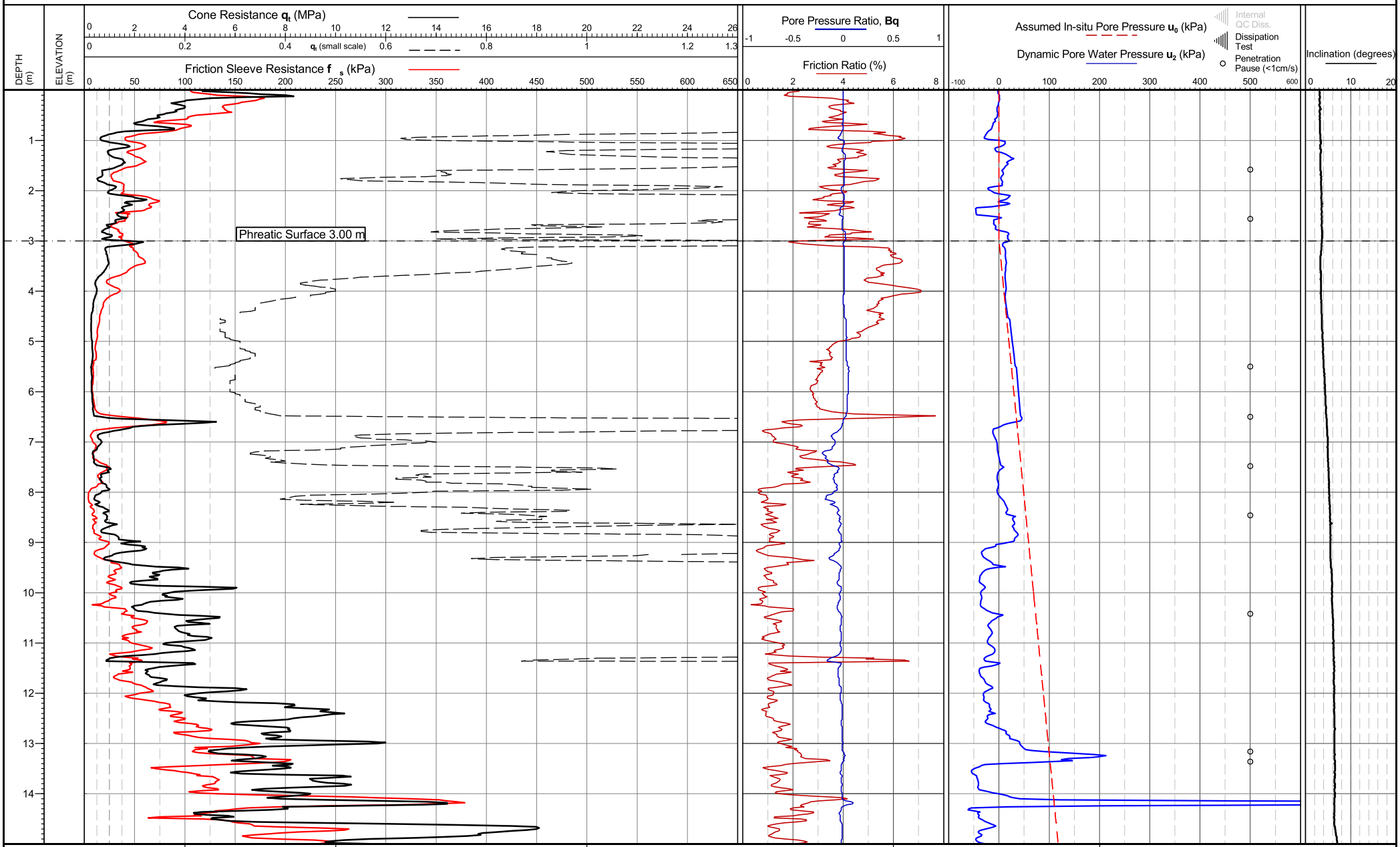
Borehole Type
CP: Cable Percussive
WS: Windowless Sampler
RC: Rotary Cored

Sample Types
D: Disturbed
B: Bulk
J: Jar
W: Water
U: Undisturbed

In-Situ Testing
SPT: Split spoon - Standard Penetration Test
CPT: Cone - Standard Penetration Test

Project: NEW MONKS FARM

Client: SOILS LIMITED



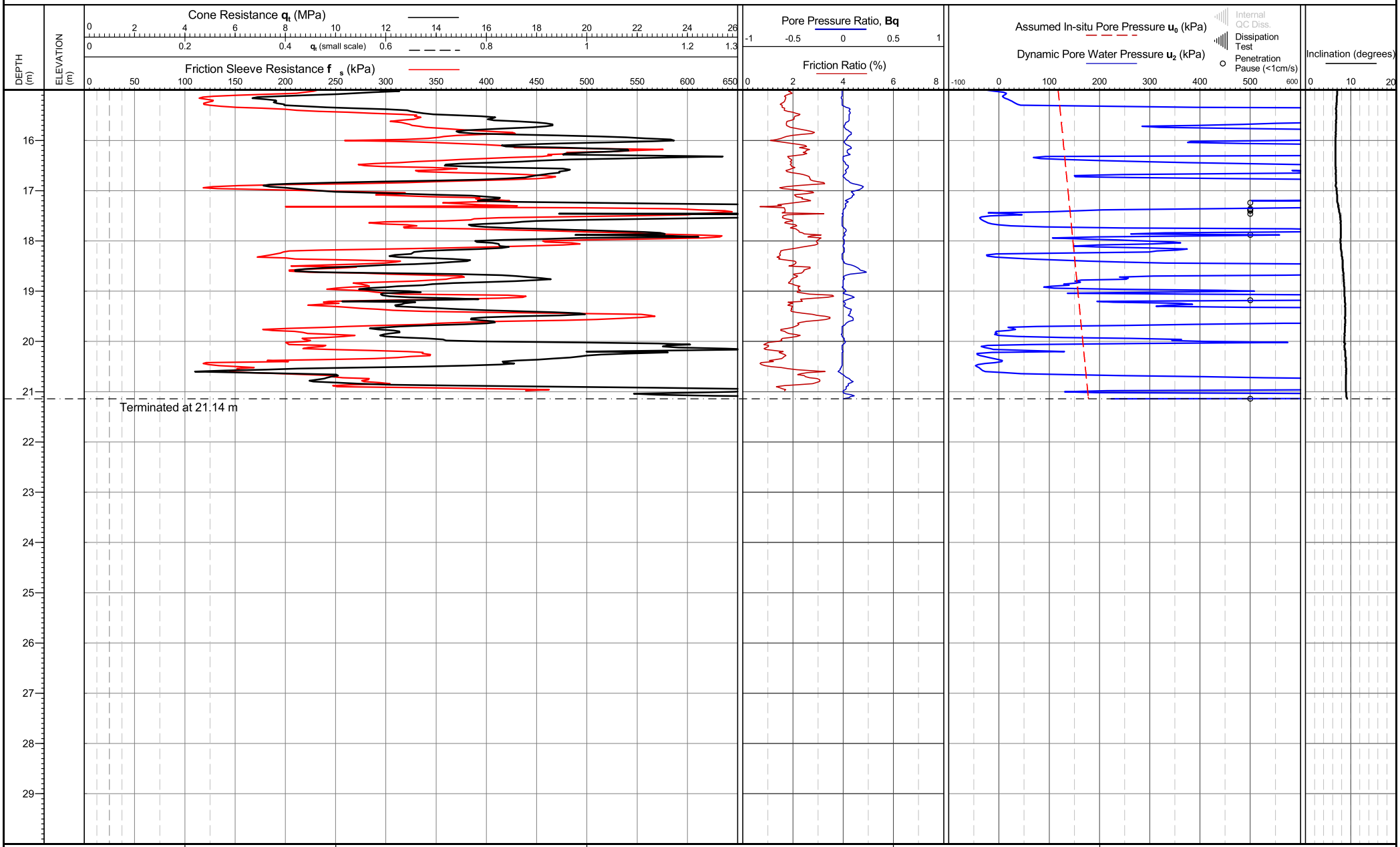
Cone area (mm2):1500 Cone ID: S15-CFIPM(100).1431 Operator: Gerard Balp Rig Used: UK22 Date of test: 21/07/2020 10:38:00	Zero drift (Pre/post test) q_c (kPa): -0.4 f_s (kPa): 0.4 ($f_{s\,drift}$ - $q_{c\,drift}$) U_2 (kPa): -3.8	Location: West Sussex, UK Coordinates: , Elevation: Coordinate system:	Remarks: *Phreatic surface origin: Arbitrary value Termination Remark: Lateral support	Date of plot: 23-07-20 Checked by: Chris Player	Lankelma Project Ref: P-107502-7

TEST ID: CPT201

LANKELMA

Project: NEW MONKS FARM

Client: SOILS LIMITED



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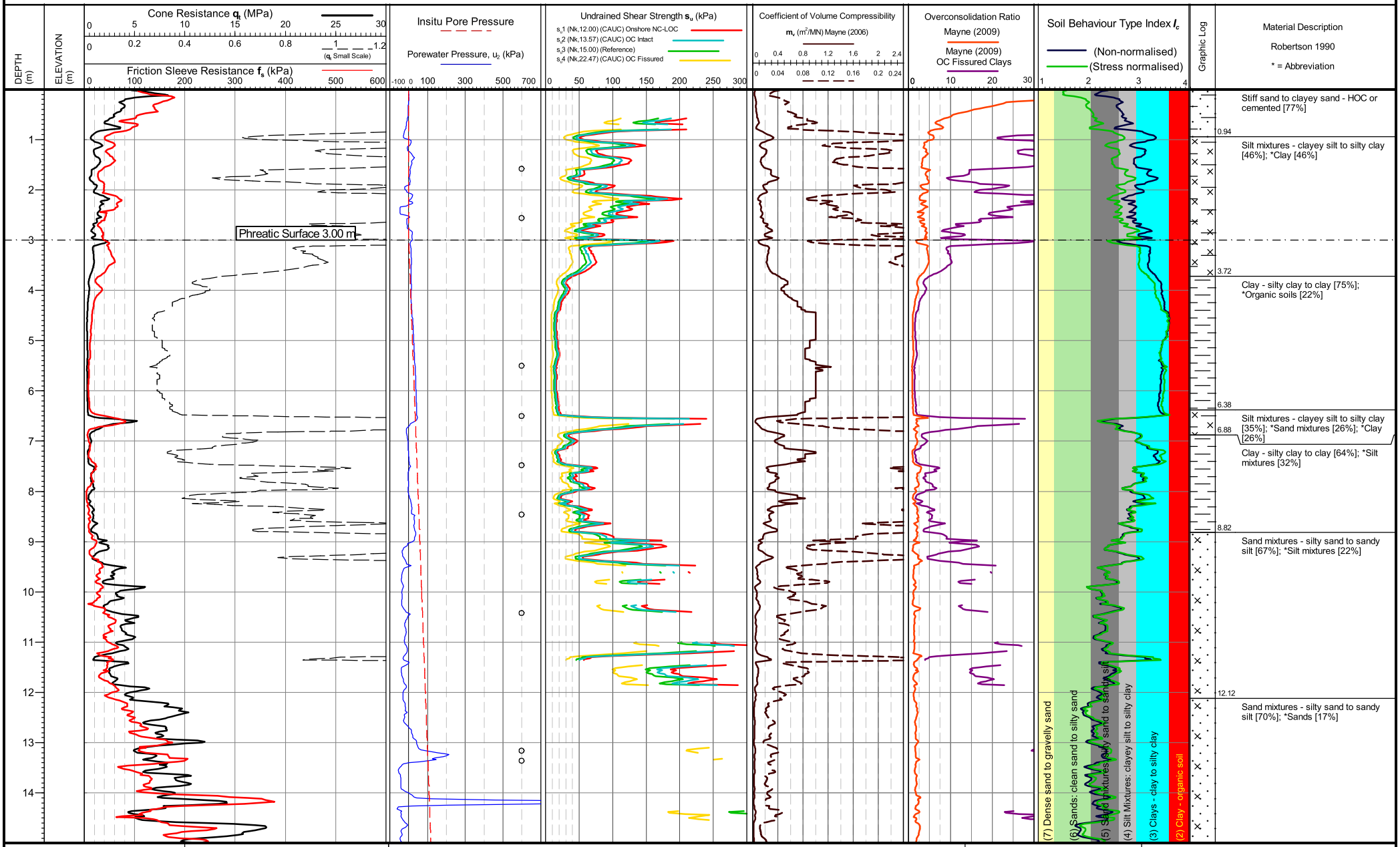
TEST ID: CPT201

LANKELMA

Project: NEW MONKS FARM

Client: SOILS LIMITED



Cone area (mm2):1500
ConeID: S15-CFIPM(100).1431
Operator: Gerard Balp
Rig Used: UK22
Date of test: 21/07/2020 10:38:00

Location: West Sussex, UK
Coordinates: ,
Elevation:
Coordinate system:

Remarks: *Phreatic surface origin: Arbitrary value

Termination Remark:
Lateral support

Internal QA Diss.
Dissipation Test
Penetration Pause (<1cm/s)

Both drained and undrained parameters are calculated for mixed SBTs = Ic 2.40-2.70. See report text for methods and discussion of parameter evaluation.

Date of plot: 23-07-20

Checked by: Chris Player

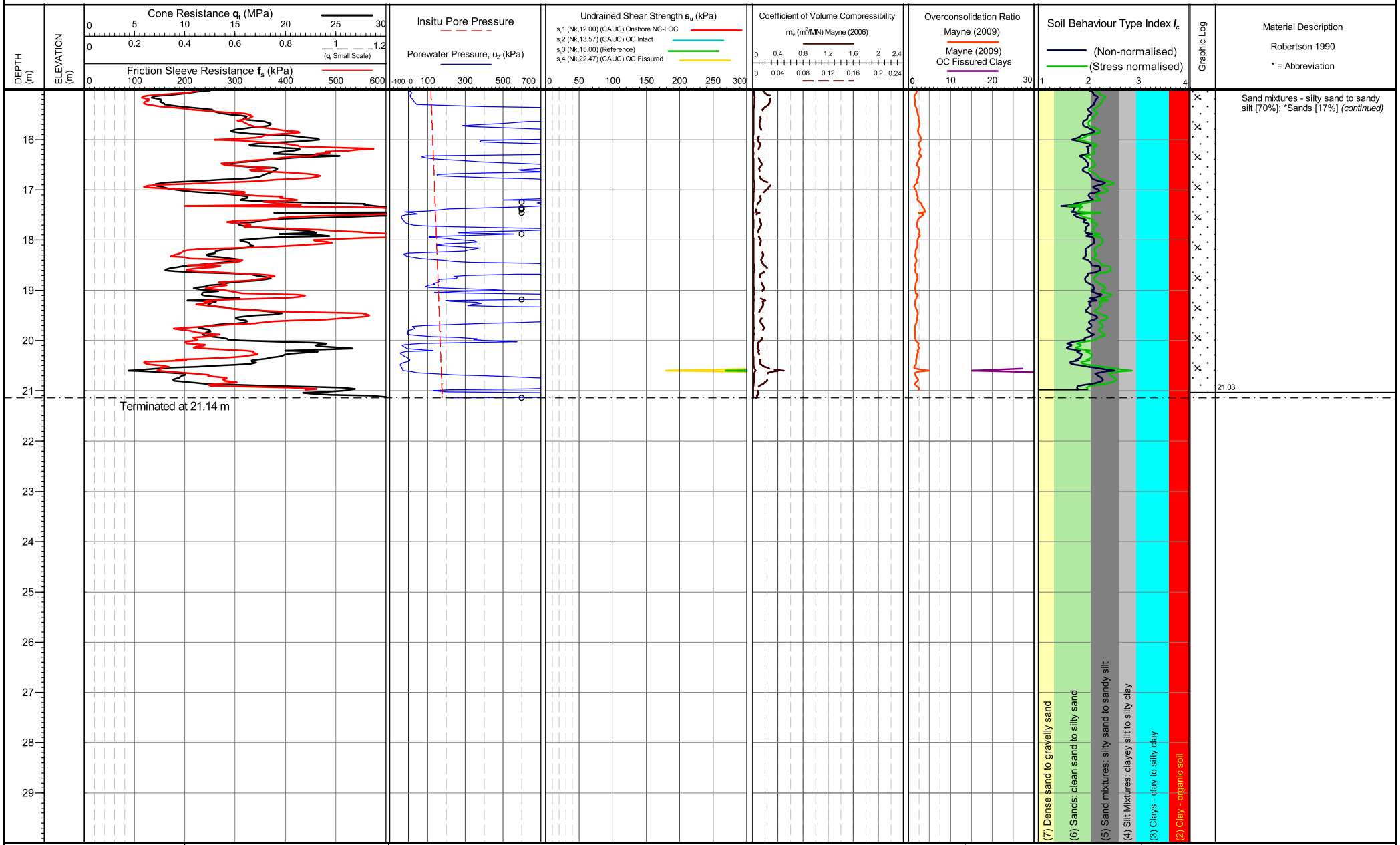
Lankelma Project Ref: P-107502-7

TEST ID: CPT201

LANKELMA

Project: NEW MONKS FARM

Client: SOILS LIMITED



Cone area (mm2):1500
ConeID: S15-CFIPM(100).1431
Operator: Gerard Balp
Rig Used: UK22
Date of test: 21/07/2020 10:38:00

Location: West Sussex, UK
Coordinates: ,
Elevation:
Coordinate system:

Remarks: *Phreatic surface origin: Arbitrary value

Termination Remark:
Lateral support

Internal QA Diss.
Dissipation Test
Penetration Pause (<1cm/s)

Both drained and undrained parameters are calculated for mixed SBTs = Ic 2.40-2.70. See report text for methods and discussion of parameter evaluation.

Date of plot: 23-07-20

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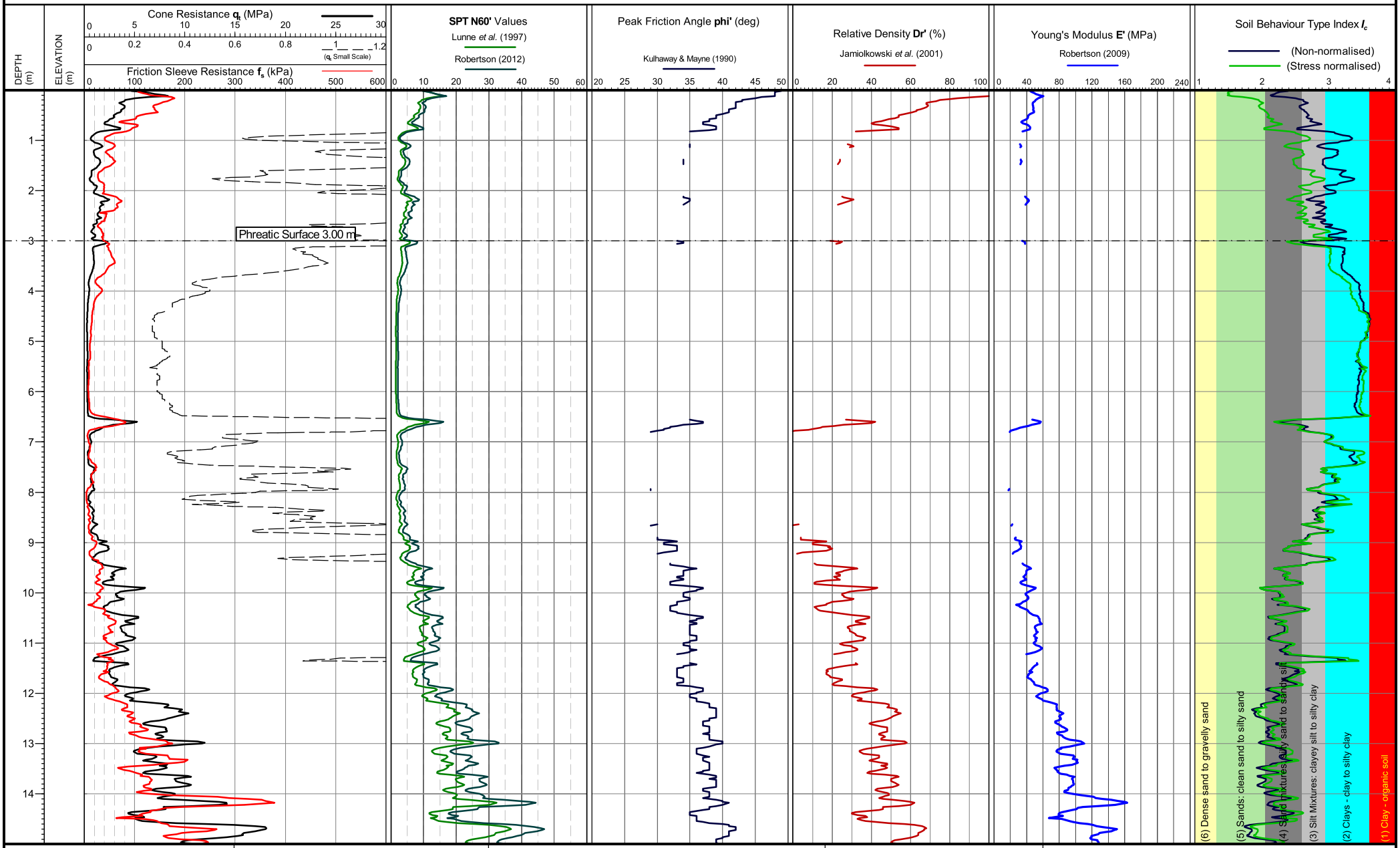
Lankelma Project Ref: P-107502-7

TEST ID: CPT201

Project: NEW MONKS FARM

Client: SOILS LIMITED



Cone area (mm2):1500
Cone ID: S15-CFIPM(100).1431
Operator: Gerard Balp
Date of test: 21/07/2020 10:38:00

Location: West Sussex, UK
Coordinates: ,
Elevation:
Coordinate system:

Both drained and undrained parameters are calculated for mixed SBTs = Ic 2.40-2.70. See report text for methods and discussion of parameter evaluation.

Date of plot: 23-07-20
Lankelma Project Ref: P-107502-7

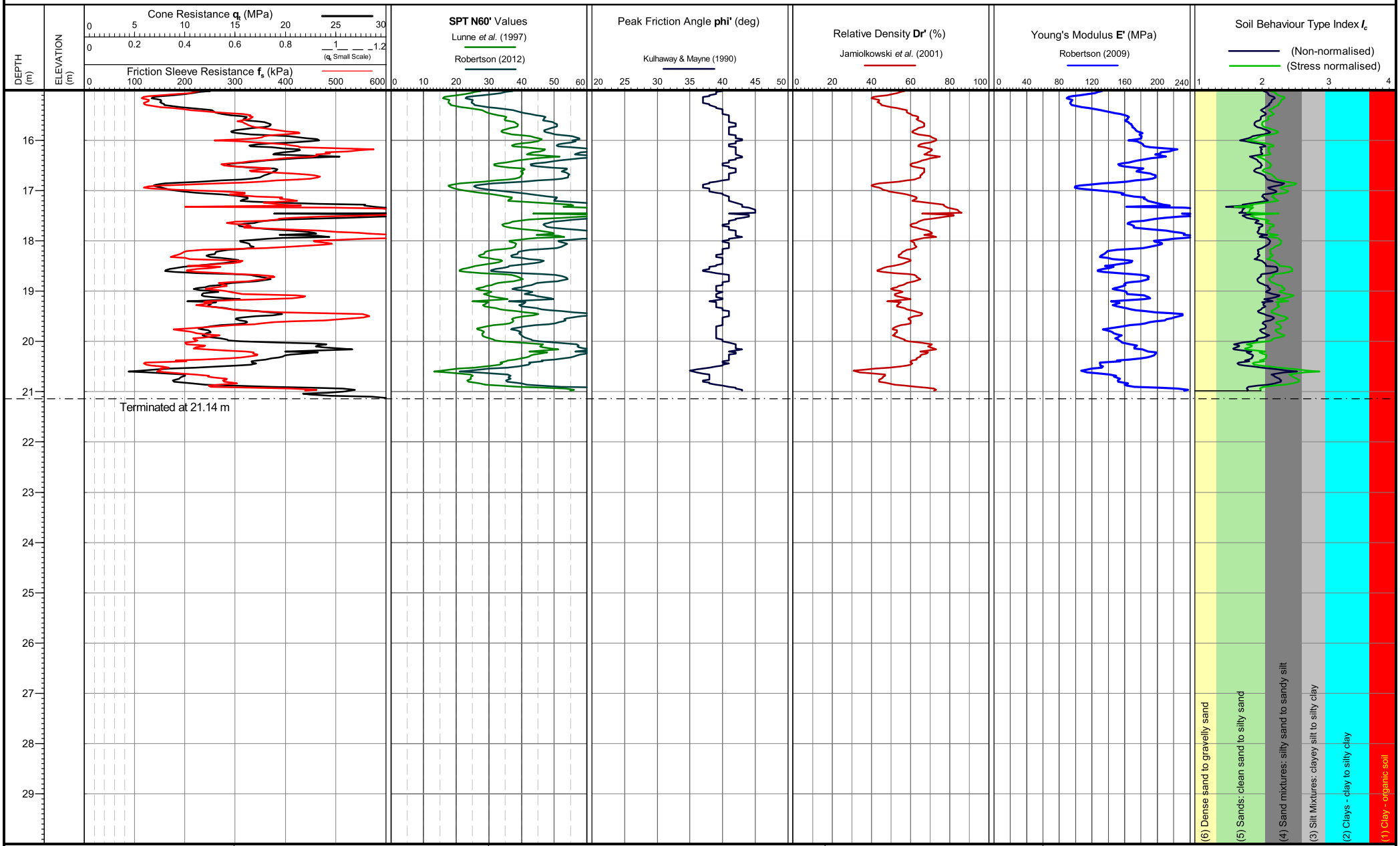
Checked by: Chris Player

TEST ID: CPT201

LANKELMA

Project: NEW MONKS FARM

Client: SOILS LIMITED



Cone area (mm2):1500
Cone ID: S15-CFIPM(100).1431
Operator: Gerard Balp
Date of test: 21/07/2020 10:38:00

Location: West Sussex, UK
Coordinates: ,
Elevation:
Coordinate system:

Both drained and undrained parameters are calculated for mixed SBTs = Ic 2.40-2.70. See report text for methods and discussion of parameter evaluation.

Date of plot: 23-07-20

Checked by: Chris Player

Lankelma Project Ref: P-107502-7

TEST ID: CPT201

APPENDIX E – RRS Risk Assessment

RRS Risk Assessment

The Civil Engineering Practice
11 Tungsten Building
George Street
Fishersgate
Sussex
BN41 1RA
01273 424424
reception@civil.co.uk
www.civil.co.uk

Project	New Monks Farm, Lancing
Project Number	22236
Area Assessed	Onsite Bridge Approaches
Date	25 February 2021

1 Non Technical Summary

1.1 Planning Permission has been granted for the site which includes a new access from the A27 and new highways to be offered for adoption by West Sussex County Council as the Highway Authority.

1.2 The proposed works commence at the tie in to the A27 works and link the proposed housing site, Ikea and Brighton City Airport to the new A27 Junction. The works include 5 new highway structures to cross the existing and proposed watercourses.

1.3 The proposed highways will all have a maximum 30mph speed limit and therefore fall below the RAAP requirements of Design Manual for Roads and Bridges. All bridges will have N1 minimum parapet barriers. This assessment if further works to the approaches should be applied.

1.4 It is proposed that new N1 barriers to the bridge deck will be constructed.

1.5 This Risk Assessment has been undertaken in accordance with the Department for Transport Design & Maintenance Guidance for Local Authority Roads, Provision of Road Restraint Systems in Local Authority Roads dated October 2011.

1.6 This Risk Assessment evaluates the site as a lower priority site where the level of risk does not require the installation of a Road Restraint System.

2 Site Details

2.1 This risk assessment has been produced to support the design of the proposed onsite highways and structures at the New Monks Farm development on land to the south of the A27(T) on behalf of The Community Stadium Limited.

2.2 This risk assessment should be read in conjunction with the CEP and HOP Design Drawings for the highway and proposed Highway Structures submitted with the Planning Application (Adur and Worthing Council reference AWDM/0961/17).

2.3 A copy of the proposed highway layouts plans are located at the rear of this assessment.

2.4 All the onsite highways will be unclassified roads with a 30mph speed limit. Speed surveys and accident records are unavailable as these are proposed highways.

2.5 The carriageway is approximately 7m in width with a shared footway / cycleway to generally the north side and a verge to the south side.

2.6 The assessment considers the risk on the approaches to each of the 5 proposed highway bridges HW01, HW02, HW03, HW04 and HW05.

ace
QMS ISO 9001 : 2008 REGISTERED
Cert No. 14127180

2.7 Where necessary each bridge has been assessed separately.

3 Risk Scoring

3.1 The risk to this development is not clear cut, there is little evidence to suggest there is anything greater than an extremely low risk of a vehicle leaving the carriageway. There is however a risk albeit small and the low possibility that should an errant vehicle leave the carriageway it could potentially reach watercourse or adjacent bank to the watercourse.

3.2 The risk will therefore be assessed in accordance with Section 6 Risk Scoring of the Department for Transport guidance document Provision of Road Restraint Systems in Local Authority Roads dated October 2011.

3.2.1 Location factor

HW01, HW02, HW03, HW04 and HW05

PRIORITY RANK	RISK FACTOR SCORE	SITE SCORE
0 - All other roads	0	0
1 - Rural U & B roads and urban C roads	1	
2 - Rural A roads[8] and urban B roads	3	
3 - Urban A Roads	6	

Table 6.1 - Location Factor

3.2.2 Layout factor

HW01, HW02, HW03, HW04 and HW05

PRIORITY RANK	RISK FACTOR SCORE	SITE SCORE
0 - Straight alignment and/or complies with TD9	0	0
1 - One step below desirable minimum R with superelevation of 5%	1	
2 - Two steps below desirable minimum R with superelevation of 5%	2	
3 - Three steps below desirable minimum R with superelevation of 5%	3	
4 - Four steps below desirable minimum R with superelevation of 5%	4	
5 - Five steps below desirable minimum R with superelevation of 5%	5	

Table 6.2 - Layout Factor (Part One)

HW01 and HW02

PRIORITY RANK	RISK FACTOR SCORE	SITE SCORE
0 - No reason for lane changing/manoeuvres.	0	
1 - Some potential for lane changing, overtaking, positioning manoeuvres or avoiding action.	2	
2 - High likelihood of lane changing, overtaking, positioning manoeuvres or avoiding action.	3	3

Table 6.3 - Layout Factor (Part Two)

HW03, HW04 and HW05

PRIORITY RANK	RISK FACTOR SCORE	SITE SCORE
0 - No reason for lane changing/manoeuvres.	0	0
1 - Some potential for lane changing, overtaking, positioning manoeuvres or avoiding action.	2	
2 - High likelihood of lane changing, overtaking, positioning manoeuvres or avoiding action.	3	

Table 6.3 - Layout Factor (Part Two)

3.2.3 Collision Factors

HW01, HW02, HW03, HW04 and HW05

PRIORITY RANK	RISK FACTOR SCORE	SITE SCORE
0 – Individual spot hazard	0	
1 – Series of individual hazards less than 50m apart or a longitudinal hazard that might be reached.	1	1
2 – Longitudinal hazard that is highly likely to be reached resulting in harm or a spot hazard downstream of a feature which may guide the vehicle towards the hazard.	2	

Table 6.4 - Collision Factor (Part One)

Site specific note for Table 6.4:

Proposed bridge parapet assessed as a single longitudinal hazard.

HW01, HW02, HW03, HW04 and HW05

PRIORITY RANK	RISK FACTOR SCORE	SITE SCORE
0 - Percentage of KSI for primary hazard < 20%	0	
1 - Percentage of KSI for primary hazard 20 -30%	1	1
2 - Percentage of KSI for primary hazard >30%	2	

Table 6.5 - Collision Factor (Part Two)

Site specific note for Table 6.5:

Reference to Table 3.2 in Provision of Road Restraint Systems in Local Authority Roads dated October 2011 notes for All roads other permanent objects have a KSI of 20.5 which has been applied in this case. Exposed Parapet ends are considered to have the same severity percentage as 'other permanent object'.

3.2.4 Consequential Factors

HW01, HW02, HW03, HW04 and HW05

PRIORITY RANK	RISK FACTOR SCORE	SITE SCORE
0 - No secondary events likely.	0	
1 - When damaged or collapsed the feature could give rise to the risk of secondary vehicular accidents.	1	1

Table 6.6 - Consequential Factor (Part One)

Site specific note for Table 6.6:

Potential risk of leaving the carriageway whilst low could result in vehicles entering the county park or watercourses.

HW01, HW02, HW03, HW04 and HW05

PRIORITY RANK	RISK FACTOR SCORE	SITE SCORE
0 - No impact on network availability.	0	
1 - If hazardous feature was damaged or collapsed this could give rise to network disruption for more than one day.	1	1

Table 6.7 - Consequential Factor (Part Two)

Site specific note for Table 6.7:

If a vehicle left the carriageway it may result in closure for longer than 1 day to facilitate repair. There are options to keep the carriageway open and reduce to single lane operation to remain open. To be robust a score of 1 has been applied.

3.2.5 Cost of damage

HW01, HW02, HW03, HW04 and HW05

PRIORITY RANK	RISK FACTOR SCORE	SITE SCORE
0 - No significant cost implications.	0	0
1 - Significant cost of repair or replacement following collision.	1	

Table 6.8 - Consequential Factor (Part Three)

Site specific note for Table 6.8:

Significant cost of repair is subjective, rebuilding the landscaping or damage to watercourse banks from a vehicle leaving the carriageway is not a significant cost. A score of 1 has been applied to be robust in this assessment.

3.2.6 Risk Ranking Score

TOTAL RISK RANKING SCORE	CATEGORY	OUTCOME
14 or more	Higher Priority	(see Table 5.2)
9-13	Medium Priority	
0-8	Lower Priority	

Table 6.9 - Resultant Risk Categories

HW01 and HW02 Total Score = 7

HW03, HW04 and HW05 Total Score = 4

CATEGORY	RISK LEVEL	OUTCOMES
Lower Priority Site	Level of risk regarded as generally acceptable. Further effort to reduce risk is not likely to be required as resources to reduce risk would be grossly disproportionate to the risk reduction achieved.	Where the risk evaluation identifies a site that is lower priority further appraisal is not required and the level of risk does not normally support installation of a RRS. Simple low cost measures that could reduce the risk can still be considered.

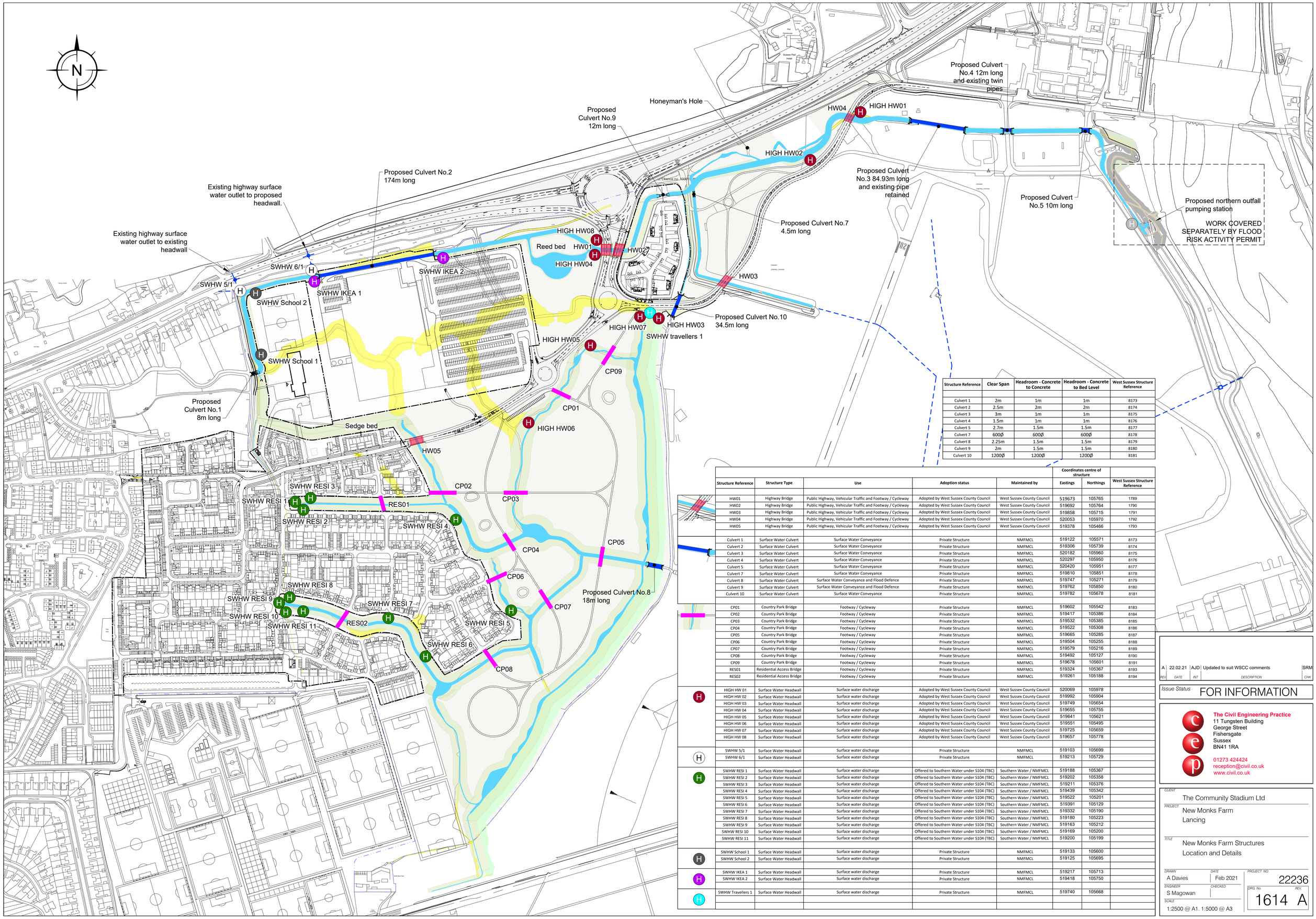
Extract from Table 5.2 - Site Risk Categories

3.2.7 Worst case site score = 7 Lower Priority Site.

4 Conclusion

4.1 The assessment indicates the site is in the Lower Priority range with an acceptable level of risk.

4.2 The level of risk does not support the installation of a road restraint system for the approaches to the bridges.



Structure Reference	Clear Span	Headroom - Concrete to Concrete	Headroom - Concrete to Bed Level	West Sussex Structure Reference
Culvert 1	2m	1m	1m	8173
Culvert 2	2.5m	2m	2m	8174
Culvert 3	3m	1m	1m	8175
Culvert 4	1.5m	1m	1m	8176
Culvert 5	2.7m	1.5m	1.5m	8177
Culvert 7	600Ø	600Ø	600Ø	8178
Culvert 8	2.25m	1.5m	1.5m	8179
Culvert 9	2m	1.5m	1.5m	8180
Culvert 10	1200Ø	1200Ø	1200Ø	8181

	Structure Reference	Structure Type	Use	Adoption status	Maintained by	Coordinates centre of structure		West Sussex Structure Reference
						Eastings	Northings	
	HW01	Highway Bridge	Public Highway, Vehicular Traffic and Footway / Cycleway	Adopted by West Sussex County Council	West Sussex County Council	519673	105765	1789
	HW02	Highway Bridge	Public Highway, Vehicular Traffic and Footway / Cycleway	Adopted by West Sussex County Council	West Sussex County Council	519692	105764	1790
	HW03	Highway Bridge	Public Highway, Vehicular Traffic and Footway / Cycleway	Adopted by West Sussex County Council	West Sussex County Council	519858	105715	1791
	HW04	Highway Bridge	Public Highway, Vehicular Traffic and Footway / Cycleway	Adopted by West Sussex County Council	West Sussex County Council	520053	105970	1792
	HW05	Highway Bridge	Public Highway, Vehicular Traffic and Footway / Cycleway	Adopted by West Sussex County Council	West Sussex County Council	519378	105466	1793
	Culvert 1	Surface Water Culvert	Surface Water Conveyance	Private Structure	NMFMCL	519122	105571	8173
	Culvert 2	Surface Water Culvert	Surface Water Conveyance	Private Structure	NMFMCL	519306	105739	8174
	Culvert 3	Surface Water Culvert	Surface Water Conveyance	Private Structure	NMFMCL	520182	105960	8175
	Culvert 4	Surface Water Culvert	Surface Water Conveyance	Private Structure	NMFMCL	520297	105950	8176
	Culvert 5	Surface Water Culvert	Surface Water Conveyance	Private Structure	NMFMCL	520420	105951	8177
	Culvert 7	Surface Water Culvert	Surface Water Conveyance	Private Structure	NMFMCL	519810	105851	8178
	Culvert 8	Surface Water Culvert	Surface Water Conveyance and Flood Defence	Private Structure	NMFMCL	519747	105271	8179
	Culvert 9	Surface Water Culvert	Surface Water Conveyance and Flood Defence	Private Structure	NMFMCL	519762	105850	8180
	Culvert 10	Surface Water Culvert	Surface Water Conveyance	Private Structure	NMFMCL	519782	105678	8181
	CP01	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519602	105542	8183
	CP02	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519417	105386	8184
	CP03	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519532	105385	8185
	CP04	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519522	105308	8186
	CP05	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519665	105285	8187
	CP06	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519504	105255	8188
	CP07	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519579	105216	8189
	CP08	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519492	105127	8190
	CP09	Country Park Bridge	Footway / Cycleway	Private Structure	NMFMCL	519678	105601	8191
	RES01	Residential Access Bridge	Footway / Cycleway	Private Structure	NMFMCL	519324	105367	8193
	RES02	Residential Access Bridge	Footway / Cycleway	Private Structure	NMFMCL	519261	105188	8194
H	HIGH HW 01	Surface Water Headwall	Surface water discharge	Adopted by West Sussex County Council	West Sussex County Council	520069	105978	
	HIGH HW 02	Surface Water Headwall	Surface water discharge	Adopted by West Sussex County Council	West Sussex County Council	519992	105904	
	HIGH HW 03	Surface Water Headwall	Surface water discharge	Adopted by West Sussex County Council	West Sussex County Council	519749	105654	
	HIGH HW 04	Surface Water Headwall	Surface water discharge	Adopted by West Sussex County Council	West Sussex County Council	519655	105755	
	HIGH HW 05	Surface Water Headwall	Surface water discharge	Adopted by West Sussex County Council	West Sussex County Council	519641	105821	
	HIGH HW 06	Surface Water Headwall	Surface water discharge	Adopted by West Sussex County Council	West Sussex County Council	519551	105495	
	HIGH HW 07	Surface Water Headwall	Surface water discharge	Adopted by West Sussex County Council	West Sussex County Council	519725	105659	
	HIGH HW 08	Surface Water Headwall	Surface water discharge	Adopted by West Sussex County Council	West Sussex County Council	519657	105778	
H	SWHW 5/1	Surface Water Headwall	Surface water discharge	Private Structure	NMFMCL	519103	105699	
	SWHW 6/1	Surface Water Headwall	Surface water discharge	Private Structure	NMFMCL	519213	105729	
H	SWHW RESI 1	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519188	105367	
	SWHW RESI 2	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519202	105358	
	SWHW RESI 3	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519211	105376	
	SWHW RESI 4	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519439	105342	
	SWHW RESI 5	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519522	105201	
	SWHW RESI 6	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519391	105129	
	SWHW RESI 7	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519332	105190	
	SWHW RESI 8	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519180	105223	
	SWHW RESI 9	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519163	105212	
	SWHW RESI 10	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519169	105200	
	SWHW RESI 11	Surface Water Headwall	Surface water discharge	Offered to Southern Water under S104 (TBC)	Southern Water / NMFMCL	519200	105199	
H	SWHW School 1	Surface Water Headwall	Surface water discharge	Private Structure	NMFMCL	519133	105600	
	SWHW School 2	Surface Water Headwall	Surface water discharge	Private Structure	NMFMCL	519125	105695	
H	SWHW IKEA 1	Surface Water Headwall	Surface water discharge	Private Structure	NMFMCL	519217	105713	
	SWHW IKEA 2	Surface Water Headwall	Surface water discharge	Private Structure	NMFMCL	519418	105750	
H	SWHW Travellers 1	Surface Water Headwall	Surface water discharge	Private Structure	NMFMCL	519740	105668	

REV	DATE	INT	DESCRIPTION	CHK
A	22.02.21	AJD	Updated to suit WSCC comments	SRM

Issue Status: FOR INFORMATION

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www.civil.co.uk

CLIENT: The Community Stadium Ltd

PROJECT: New Monks Farm
Lancing

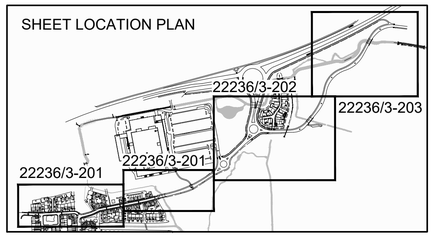
TITLE: New Monks Farm Structures
Location and Details

DRAWN	DATE	PROJECT NO.
A Davies	Feb 2021	22236
ENGINEER: S Magowan	CHECKED	
SCALE: 1:2500 @ A1. 1:5000 @ A3	DRG. No. 1614	REV. A

CEP DRAWING LIST	
No.	Sheet Title
NMF-CEP-03-DR-C-003	Site Layout - Current Survey - Sheet 1 of 2
NMF-CEP-03-DR-C-004	Site Layout - Current Survey - Sheet 2 of 2
NMF-CEP-03-DR-C-005	Site Layout - Highway Phasing Plan
NMF-CEP-03-DR-C-006	Old Shoreham Road Tie In Staging
NMF-CEP-03-DR-C-103	Site Layout - General Arrangement - Sh3
NMF-CEP-03-DR-C-104	Site Layout - General Arrangement - Sh4
NMF-CEP-03-DR-C-105	Site Layout - General Arrangement - Sh5
NMF-CEP-03-DR-C-106	Site Layout - General Arrangement - Sh6
NMF-CEP-03-DR-C-107	Site Layout - Old Shoreham Road Overlay
NMF-CEP-03-DR-C-200	Site Location Plan - Section 38 Agreement
NMF-CEP-03-DR-C-201	Site Layout - Section 38 Agreement Plan Sh 1
NMF-CEP-03-DR-C-202	Site Layout - Section 38 Agreement Plan Sh 2
NMF-CEP-03-DR-C-203	Site Layout - Section 38 Agreement Plan Sh 3
NMF-CEP-03-DR-C-211	Site Layout - Section 278 Agreement Plan
NMF-CEP-03-DR-C-221	Site Layout - Highway Maintenance Plan
NMF-CEP-03-DR-C-300	Site Layout - Existing Services
NMF-CEP-03-DR-C-302	Site Layout - Existing Services - Sheet 1
NMF-CEP-03-DR-C-303	Site Layout - Existing Services - Sheet 2
NMF-CEP-03-DR-C-323	Site Layout - Proposed Services
NMF-CEP-03-DR-C-324	Site Layout - Proposed Services
NMF-CEP-03-DR-C-325	Site Layout - Proposed Services
NMF-CEP-03-DR-C-403	Site Layout - Proposed Levels
NMF-CEP-03-DR-C-404	Site Layout - Proposed Levels
NMF-CEP-03-DR-C-405	Site Layout - Proposed Levels
NMF-CEP-03-DR-C-406	Proposed Vertical Alignment - Sheet 1
NMF-CEP-03-DR-C-407	Proposed Vertical Alignment - Sheet 2
NMF-CEP-03-DR-C-408	Proposed Vertical Alignment - Sheet 3
NMF-CEP-03-DR-C-415	Roundabout 1 - Proposed Vertical Alignment
NMF-CEP-03-DR-C-418	Roundabout 2 - Proposed Vertical Alignment
NMF-CEP-03-DR-C-431	Site Layout - Road Dimensions - Sh 1 of 3
NMF-CEP-03-DR-C-432	Site Layout - Road Dimensions - Sh 2 of 3
NMF-CEP-03-DR-C-433	Site Layout - Road Dimensions - Sh 3 of 3
NMF-CEP-03-DR-C-450	Bridge Site Location Plan
NMF-CEP-03-DR-C-471	Traveller Site Bund Works - Sections
NMF-CEP-03-DR-C-503	Site Layout - Proposed Drainage
NMF-CEP-03-DR-C-504	Site Layout - Proposed Drainage
NMF-CEP-03-DR-C-505	Site Layout - Proposed Drainage
NMF-CEP-03-DR-C-506	Site Layout - Proposed Drainage - Culvert 10
NMF-CEP-03-DR-C-511	Manhole Schedules
NMF-CEP-03-DR-C-521	Site Layout - Gully Catchment
NMF-CEP-03-DR-C-522	Site Layout - Gully Catchment
NMF-CEP-03-DR-C-523	Site Layout - Gully Catchment
NMF-CEP-03-DR-C-551	Plan and Section - Traveller Site Rising
NMF-CEP-03-DR-C-561	Construction Details - Drainage
NMF-CEP-03-DR-C-562	Construction Details - Drainage
NMF-CEP-03-DR-C-563	Construction Details - Surface Finishes

WSCC DRAWING LIST	
No.	Sheet Title
S278/38/01	Alternative Methods of Laying Kerbs
S278/38/02	Approved Kerb Type Selection Sheet 1
S278/38/03	Approved Kerb Type Selection Sheet 2
S278/38/04	Footway/Cycleway Type 1 & 2
S278/38/07	Footway Crossover Type 1 - Residential
S278/38/09	Service Margins
S278/38/11	Drainage - Gully A Pre-cast Concrete
S278/38/13	Drainage - Type B Catchpit
S278/38/16	Street Furniture - Ramp Feature
S278/38/18	Street Furniture - Tactile Crossings
S278/38/21	Carriageway - Flexible Specification
S278/38/33	Pipe Bedding
S278/38/36	Pipe Junctions - Lateral Connections

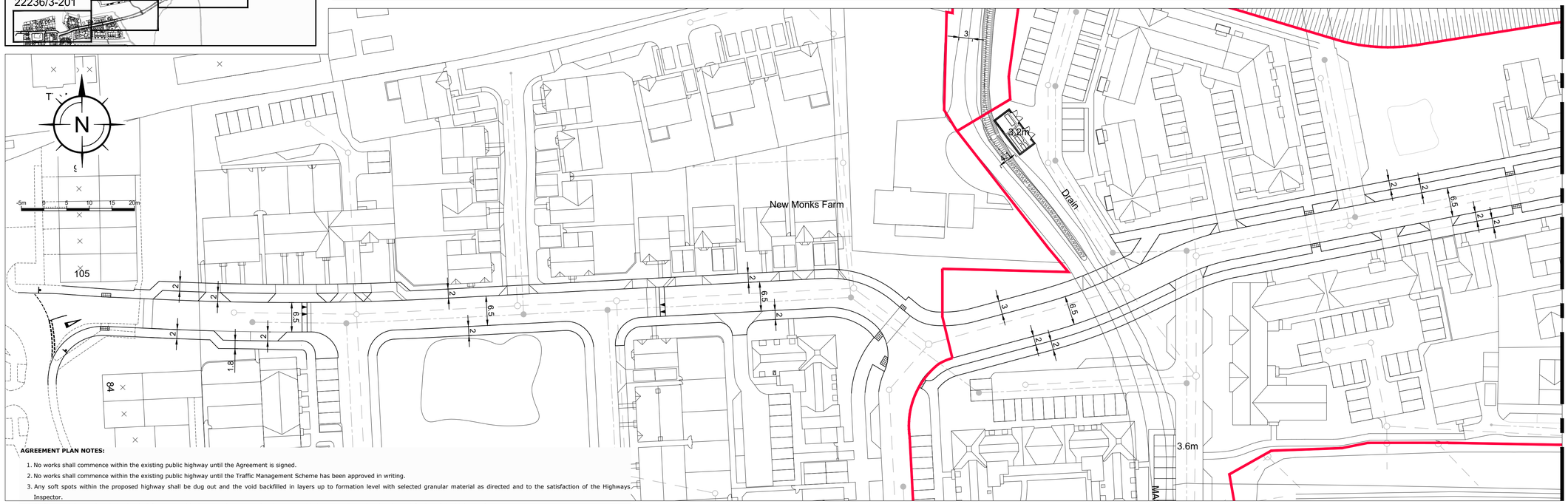
SHEET LOCATION PLAN



STREET LIGHTING KEY

Unit Type ID	Count	Status	Mounting Height	Column Type	Column Material	Column Colour	Installation Type	Root Length	Mounting	Luminaire Tilt	Luminaire	Optic Setting	Output (klm)	Colour Temperature	Wattage	Luminaire Weight	Windage	Control Unit	Switching Unit	Isolator	Luminaire Elexon Code	Control Gear Elexon Code
A	16	Proposed column	8 metres	Stepped tubular	Galvanised steel	BS12C39 (Sherwood Green)	Planted	Factory standard	Post top	5 degrees	Philips BGP703 Mini Luma	DM33 BL1	10.0	Neutral white	56W (40 no. LEDs)	9.5kg	0.021m²	Electronic DALI enabled ballast	Mayflower External node	Tofco DPI range	42 0056 0000 100	98 0001 0010 100
B	4	Proposed column	8 metres	Stepped tubular	Galvanised steel	BS12C39 (Sherwood Green)	Planted	Factory standard	Post top	5 degrees	Philips BGP703 Mini Luma	DM10 BL1	10.0	Neutral white	56W (40 no. LEDs)	9.5kg	0.021m²	Electronic DALI enabled ballast	Mayflower External node	Tofco DPI range	42 0056 0000 100	98 0001 0010 100
C	4	Proposed column	6 metres	Stepped tubular	Galvanised steel	BS12C39 (Sherwood Green)	Planted	Factory standard	Post top	5 degrees	Philips BGP702 Micro Luma	DM10 BL1	3.0	Neutral white	17W (20 no. LEDs)	8.0kg	0.021m²	Electronic DALI enabled ballast	Mayflower External node	Tofco DPI range	42 0017 0000 100	98 0001 0010 100
D	7	Proposed column	8 metres	Stepped tubular	Galvanised steel	BS12C39 (Sherwood Green)	Planted	Factory standard	Post top	5 degrees	Philips BGP702 Micro Luma	DM10 BL1	5.0	Neutral white	29W (20 no. LEDs)	8.0kg	0.021m²	Electronic DALI enabled ballast	Mayflower External node	Tofco DPI range	42 0029 0000 100	98 0001 0010 100

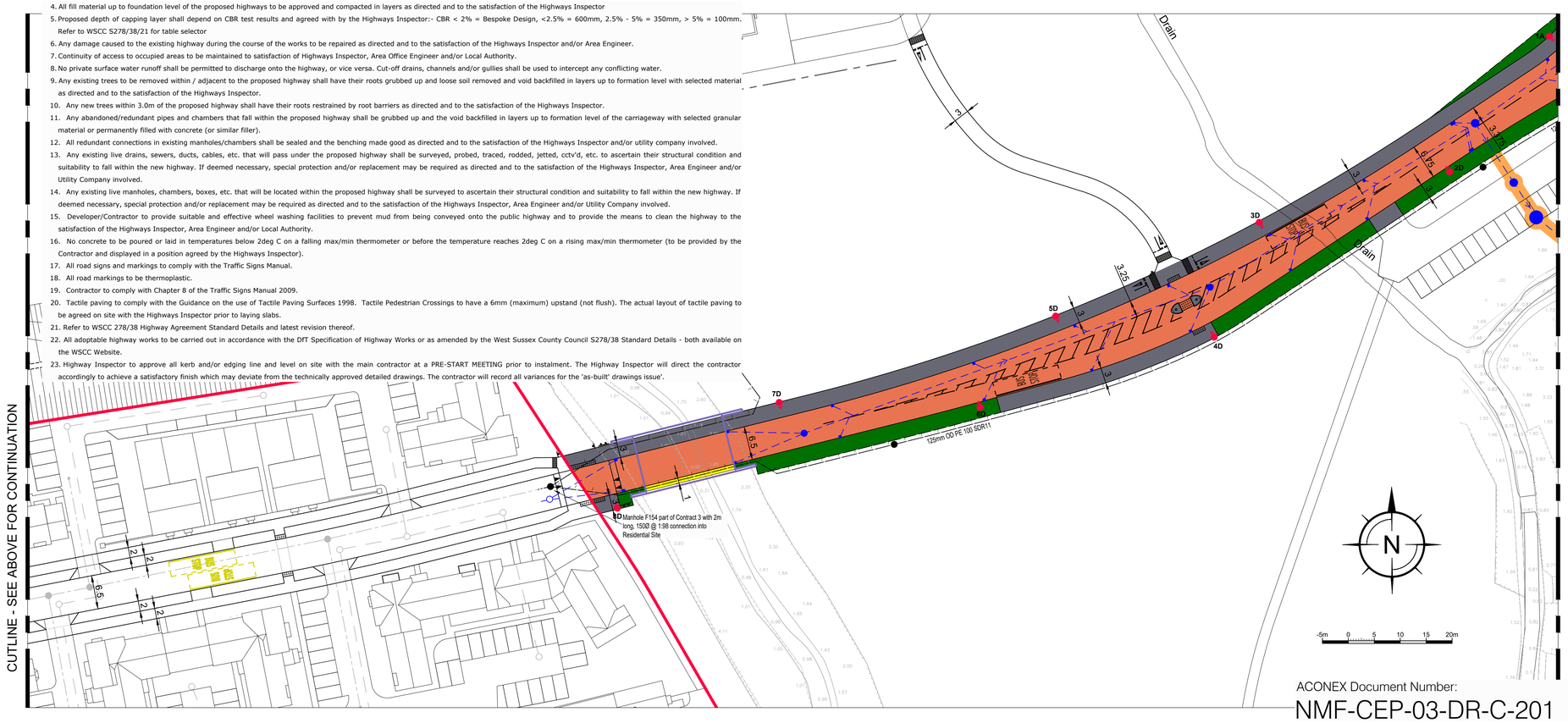
For full details of street lighting see SSE drawings SSE-QL725-LD-001 to 003



CUTLINE - SEE BELOW FOR CONTINUATION

AGREEMENT PLAN NOTES:

1. No works shall commence within the existing public highway until the Agreement is signed.
2. No works shall commence within the existing public highway until the Traffic Management Scheme has been approved in writing.
3. Any soft spots within the proposed highway shall be dug out and the void backfilled in layers up to formation level with selected granular material as directed and to the satisfaction of the Highways Inspector.
4. All fill material up to foundation level of the proposed highways to be approved and compacted in layers as directed and to the satisfaction of the Highways Inspector
5. Proposed depth of capping layer shall depend on CBR test results and agreed with by the Highways Inspector:- CBR < 2% = Bespoke Design, <2.5% = 600mm, 2.5% - 5% = 350mm, > 5% = 100mm. Refer to WSCC S278/38/21 for table selector
6. Any damage caused to the existing highway during the course of the works to be repaired as directed and to the satisfaction of the Highways Inspector and/or Area Engineer.
7. Continuity of access to occupied areas to be maintained to satisfaction of Highways Inspector, Area Office Engineer and/or Local Authority.
8. No private surface water runoff shall be permitted to discharge onto the highway, or vice versa. Cut-off drains, channels and/or gullies shall be used to intercept any conflicting water.
9. Any existing trees to be removed within / adjacent to the proposed highway shall have their roots grubbed up and loose soil removed and void backfilled in layers up to formation level with selected material as directed and to the satisfaction of the Highways Inspector.
10. Any new trees within 3.0m of the proposed highway shall have their roots restrained by root barriers as directed and to the satisfaction of the Highways Inspector.
11. Any abandoned/redundant pipes and chambers that fall within the proposed highway shall be grubbed up and the void backfilled in layers up to formation level of the carriageway with selected granular material or permanently filled with concrete (or similar filler).
12. All redundant connections in existing manholes/chambers shall be sealed and the benching made good as directed and to the satisfaction of the Highways Inspector and/or utility company involved.
13. Any existing live drains, sewers, ducts, cables, etc. that will pass under the proposed highway shall be surveyed, probed, traced, rodded, jetted, cctv'd, etc. to ascertain their structural condition and suitability to fall within the new highway. If deemed necessary, special protection and/or replacement may be required as directed and to the satisfaction of the Highways Inspector, Area Engineer and/or Utility Company involved.
14. Any existing live manholes, chambers, boxes, etc. that will be located within the proposed highway shall be surveyed to ascertain their structural condition and suitability to fall within the new highway. If deemed necessary, special protection and/or replacement may be required as directed and to the satisfaction of the Highways Inspector, Area Engineer and/or Utility Company involved.
15. Developer/Contractor to provide suitable and effective wheel washing facilities to prevent mud from being conveyed onto the public highway and to provide the means to clean the highway to the satisfaction of the Highways Inspector, Area Engineer and/or Local Authority.
16. No concrete to be poured or laid in temperatures below 2deg C on a falling max/min thermometer or before the temperature reaches 2deg C on a rising max/min thermometer (to be provided by the Contractor and displayed in a position agreed by the Highways Inspector).
17. All road signs and markings to comply with the Traffic Signs Manual.
18. All road markings to be thermoplastic.
19. Contractor to comply with Chapter 8 of the Traffic Signs Manual 2009.
20. Tactile paving to comply with the Guidance on the use of Tactile Paving Surfaces 1998. Tactile Pedestrian Crossings to have a 6mm (maximum) upstand (not flush). The actual layout of tactile paving to be agreed on site with the Highways Inspector prior to laying slabs.
21. Refer to WSCC 278/38 Highway Agreement Standard Details and latest revision thereof.
22. All adoptable highway works to be carried out in accordance with the DfT Specification of Highway Works or as amended by the West Sussex County Council S278/38 Standard Details - both available on the WSCC Website.
23. Highway Inspector to approve all kerb and/or edging line and level on site with the main contractor at a PRE-START MEETING prior to instalment. The Highway Inspector will direct the contractor accordingly to achieve a satisfactory finish which may deviate from the technically approved detailed drawings. The contractor will record all variances for the 'as-built' drawings issue'.



CUTLINE - SEE ABOVE FOR CONTINUATION

CUTLINE - SEE DRAWING 22236/3-202 FOR CONTINUATION

WEST SUSSEX COUNTY COUNCIL SECTION 38 KEY

- Carriageway
- Footpath
- Verge
- Hard Landscaping
- Highway drainage easement
- Proposed bridge supporting carriageway
- Proposed highway surface water drainage
- Proposed foul water sewer
- Proposed tactile paving
- Existing highway boundary
- Application site boundary

GENERAL NOTES:

1. All dimensions to be checked on site. All details and dimensions relating to sub-Contractors work must be checked and agreed between the sub-Contractor or supplier and the general Contractor.

2. This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and specification.

3. The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.

4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.

REV	DATE	INT	DESCRIPTION	CHK
P2	26.11.20	AJD	Updated to suit WSCC comments	SRM
P1	25.09.20	AJD	ISSUED FOR TENDER	SRM
B	24.07.20	AJD	Hatching removed from residential site	SRM
A	15.01.20	AJD	Hatching removed from Mash Barn Lane cycleway	SRM

Issue Status: FOR TENDER

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CLIENT: The Community Stadium Ltd

PROJECT: New Monks Farm
Lancing
Contract 3 - Adoptable Highways

TITLE: Site Layout
Section 38 Agreement Plan
Sheet 1 of 3

DRAWN	DATE	PROJECT NO.
A Davies	Mar 2018	22236
ENGINEER	CHECKED	ORG. No. / REV.
S Magowan		3-201 P2

SCALE: 1:500 @ A1, 1:1000 @ A3

ACONEX Document Number:
NMF-CEP-03-DR-C-201