8. Please confirm

		Notes for developers
Which Drainage Systems measures have been used, including green roofs?	Green roofs are feasible but have been discounted in this initial assessment	SUDS can be adapted for most situations even where infiltration isn't feasible e.g. impermeable liners beneath some SUDS devices allows treatment but not infiltration. See CIRIA SUDS Manual C697.
Drainage system can contain in the 1 in 30 storm event without flooding	YES	This a requirement for sewers for adoption & is good practice even where drainage system is not adopted.
Will the drainage system contain the 1 in 100 +CC storm event? If no please demonstrate how buildings and utility plants will be protected.	YES	National standards require that the drainage system is designed so that flooding does not occur during a 1 in 100 year rainfall event in any part of: a building (including a basement); or in any utility plant susceptible to water (e.g. pumping station or electricity substation) within the development.
Any flooding between the 1 in 30 & 1 in 100 plus climate change storm events will be safely contained on site.	N/A	**Safely:** not causing property flooding or posing a hazard to site users i.e. no deeper than 300mm on roads/footpaths. Flood waters must drain away at section 6 rates. Existing rates can be used where runoff volumes are not increased.
How will exceedance events be catered on site without increasing flood risks (both on site and outside the development)?	Basement runoff will be held in basement locations and pumped to ground level. Roof water will be attenuated in the ground level	**Safely:** not causing property flooding or posing a hazard to site users i.e. no deeper than 300mm on roads/footpaths. Flood waters must drain away at section 6 rates. Existing rates can be used where runoff volumes are not increased. Exceedance events are defined as those larger than the 1 in 100 +CC event.
How are rates being restricted (vortex control, orifice etc)	Hydrobrake or similar +pumps	Detail of how the flow control systems have been designed to avoid pipe blockages and ease of maintenance should be provided.
Please confirm the owners/adopters of the entire drainage systems throughout the development. Please list all the owners.	Private management company	If these are multiple owners then a drawing illustrating exactly what features will be within each owner's remit must be submitted with this Proforma.
How is the entire drainage system to be maintained?	Maintained by/on behalf of site owner, Refer to enclosed suds report	If the features are to be maintained directly by the owners as stated in answer to the above question please answer yes to this question and submit the relevant maintenance schedule for each feature. If it is to be maintained by others than above please give details of each feature and the maintenance schedule. Clear details of the maintenance proposals of all elements of the proposed drainage system must be provided. Details must demonstrate that maintenance and operation requirements are economically proportionate. Poorly maintained drainage can lead to increased flooding problems in the future.

	Were infiltration rates obtained by desk study or infiltration test?	Desk study	Infiltration rates can be estimated from desk studies at most stages of the planning system if a back up attenuation scheme is provided..
	Is the site contaminated? If yes, consider advice from others on whether infiltration can happen.	No	Advice on contaminated Land in Camden can be found on our supporting documents webpage Water should not be infiltrated through land that is contaminated. The Environment Agency may provide bespoke advice in planning consultations for contaminated sites that should be considered.
In light of the above, is infiltration feasible?	**Yes/No? If the answer is No, please identify how the storm water will be stored prior to release**	No	If infiltration is not feasible how will the additional volume be stored?. The applicant should then consider the following options in the next section.

Storage requirements

The developer must confirm that either of the two methods for dealing with the amount of water that needs to be stored on site.

Option 1 Simple – Store both the additional volume and attenuation volume in order to make a final discharge from site at the greenfield run off rate. This is preferred if no infiltration can be made on site. This very simply satisfies the runoff rates and volume criteria.

Option 2 Complex – If some of the additional volume of water can be infiltrated back into the ground, the remainder can be discharged at a very low rate of 2 l/sec/hectare. A combined storage calculation using the partial permissible rate of 2 l/sec/hectare and the attenuation rate used to slow the runoff from site.

		Notes for developers
Please confirm what option has been chosen and how much storage is required on site.	5 l/s based on best practice guidelines + 20.5 m^3 attenuation	The developer at this stage should have an idea of the site characteristics and be able to explain what the storage requirements are on site and how it will be achieved.

9. Evidence Please identify where the details quoted in the sections above were taken from. i.e. Plans, reports etc. Please also provide relevant drawings that need to accompany your proforma, in particular exceedance routes and ownership and location of SuDS (maintenance access strips etc

Pro-forma Section	Document reference where details quoted above are taken from	Page Number
Section 2		
Section 3		
Section 4		
Section 5		
Section 6		
Section 7		
Section 8		

The above form should be completed using evidence from the Flood Risk Assessment and site plans. It should serve as a summary sheet of the drainage proposals and should clearly show that the proposed rate and volume as a result of development will not be increasing. If there is an increase in rate or volume, the rate or volume section should be completed to set out how the additional rate/volume is being dealt with.

This form is completed using factual information from the Flood Risk Assessment and Site Plans and can be used as a summary of the surface water drainage strategy on this site.

Form Completed By…BEN WHITEHEAD……
Qualification of person responsible for signing off this pro-forma …MENG, CENG, MISTRUCTE……

Company…ENGINEERIA LTD……,……
On behalf of (Client's details) …PPR HAVERSTOCK HILL LLP……
Date: 2018.03.23……

	Resifential Development Haverstock Hill	
Date January 2018 File	Designed by tim.leach Checked by	
Micro Drainage	Source Control 2013.1.1	

ICP SUDS Mean Annual Flood

Input

Return Period (years) 100 SAAR (mm) 630 Urban 0.750
Area (ha) 0.074 Soil 0.450 Region Number Region 6

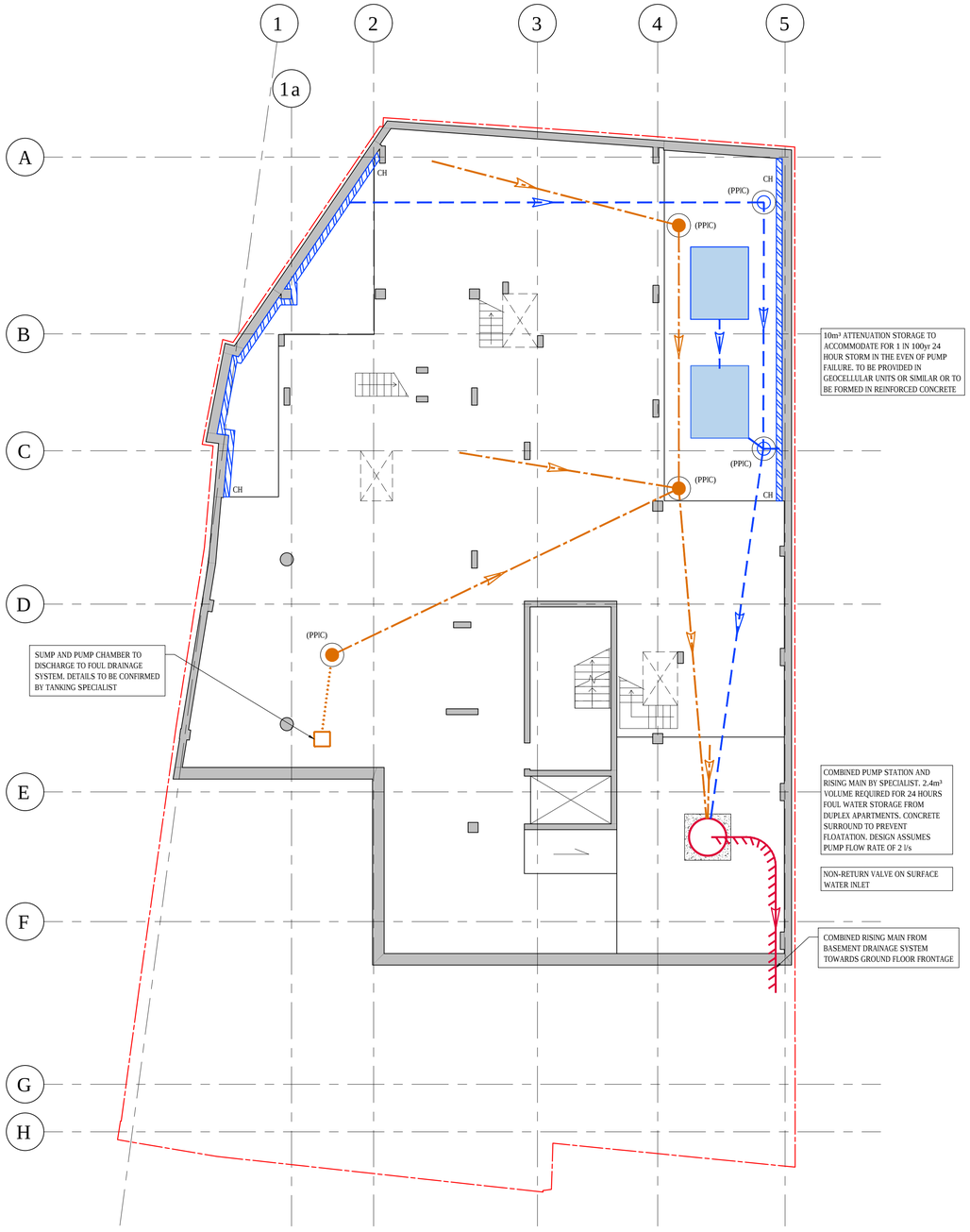
Results l/s

QBAR Rural 0.3
QBAR Urban 0.8

Q100 years 1.6

Q1 year 0.7
Q30 years 1.4
Q100 years 1.6

Appendix F - Below Ground Drainage Scheme



BELOW GROUND DRAINAGE BASEMENT LEVEL

SCALE 1:100

WATERPROOFING TO ARCHITECT'S AND SPECIALIST DESIGN

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ENGINEER'S AND ARCHITECT'S DRAWINGS, SPECIFICATIONS AND RISK REGISTERS.
2. DO NOT SCALE FROM THIS DRAWING. USE ONLY DIMENSIONS AS INDICATED. CHECK ALL SITE DIMENSIONS PRIOR TO PLACING ANY ORDER OR FABRICATION. WHERE A CONFLICT OF INFORMATION EXISTS SEEK CONFIRMATION FROM CONSULTANTS PRIOR TO PROCEEDING FURTHER WITH THE WORKS.
3. THIS DRAWING IS TO BE PRINTED IN COLOUR.
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5. ONLY DRAWINGS AND SPECIFICATIONS ISSUED FOR CONSTRUCTION CAN BE USED FOR THE WORKS. IT IS CONTRACTOR'S RESPONSIBILITY TO SEEK THE INFORMATION FROM CONSULTANTS.
6. ALL PROPRIETARY ITEMS TO BE INSTALLED STRICTLY IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS. ALL WATERPROOFING SUCH AS TANKING DETAILS, DAMP PROOF MEMBRANES, DAMP PROOF COURSES, CAVITY TRAYS ETC. ARE TO BE INSTALLED AS PER ARCHITECT'S DETAILS.
7. THE ACTUAL FORM, EXTENT AND CONDITION OF ANY ELEMENTS MARKED AS "TBC", IS TO BE CONFIRMED BY THE CONTRACTOR VIA LOCAL OPENING/TRIAL PIT PRIOR TO COMMENCEMENT OF ANY WORKS. EXACT DETAILS OF FINDINGS ARE TO BE IMMEDIATELY REPORTED TO ENGINEER.

NOTE:
MANHOLE COVERS TO BE B125 LOAD RATED UNLESS OTHERWISE NOTED. ALL COVERS TO BE RECESSED TYPE TO RECEIVE SLAB FINISH TO MATCH ADJACENT SURFACE

NOTE:
ALL INTERNAL WASTE PIPES PENETRATING BASEMENT SLAB TO HAVE RODDABLE ACCESS PLATES TO ALLOW FOR FUTURE MAINTENANCE

NOTE:
PACKAGE PUMPING STATION AND RISING MAIN DESIGNED BY SPECIALIST TO ACCEPT FOUL AND SURFACE WATER. 2No. PUMPS TO BE INSTALLED (1 X DUTY + 1 X STANDBY). ALARM AND BEACON TO BE SUPPLIED

NOTE:
CONNECTION DETAIL FROM THE BASEMENT TANKING SYSTEM TO THE SURFACE WATER SYSTEM IS TO BE CONFIRMED BY THE TANKING SPECIALIST AT A LATER DESIGN STAGE

KEYNOTE

150Ø.1/150.CB	COMBINED DRAIN RUN. DIAMETER.PIPE GRADIENT
	COMBINED RISING MAIN. DESIGNED BY PUMP SPECIALIST
150Ø.1/150.FW	FOUL DRAIN RUN. DIAMETER.PIPE GRADIENT
(MINI)	MINI POLYPROPYLENE INSPECTION CHAMBER (300Ø)
(PPIC)	POLYPROPYLENE INSPECTION CHAMBER (INTERNAL DIAMETER IN BRACKETS)
(PCC)	PRECAST CONCRETE MANHOLE (INTERNAL DIAMETER IN BRACKETS)
(TYPE 3)	TYPE 3 ACCESS CHAMBER IN ACCORDANCE WITH SEWERS FOR ADOPTION
BIG	RODDABLE BACK INLET GULLY
SVP	SOIL AND VENT PIPE LOCATION RODDABLE BACK INLET GULLY
TG	TRAPPED FLOOR GULLY (VERTICAL OUTLET)
	FOUL DRAIN RUN TO BE ABANDONED
100Ø.1/60.SW	SURFACE WATER DRAIN RUN. DIAMETER.PIPE GRADIENT
(PPIC)	POLYPROPYLENE INSPECTION CHAMBER (INTERNAL DIAMETER IN BRACKETS)
(PCC)	PRECAST CONCRETE MANHOLE (INTERNAL DIAMETER IN BRACKETS)
SUMP	GULLY (VERTICAL OUTLET IN LIGHTWELLS). PROPRIETARY GRATE SPECIFIED BY LANDSCAPE ARCHITECT
RWP	RAINWATER DOWNPIPE LOCATION
FD	FRENCH DRAIN (REFER TO LANDSCAPE ARCHITECT'S DRAWINGS FOR DETAILS)
CH	CHANNEL DRAINAGE FOR PAVED AREA (BRICKSLOT BY ACO OR EQUIVALENT)

DRAINAGE NOTES

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2. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH SEWER FOR ADOPTION 7TH EDITION, THE CURRENT BRITISH STANDARDS, CODES OF PRACTICE AND BUILDING REGULATIONS.
3. THE EXACT POSITION, LEVEL, SIZE AND USE OF EXISTING SEWERS TO BE CONFIRMED ON SITE. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF WORKS.
4. ALL UNCOVERED AND SHALLOW PIPEWORK TO BE PROTECTED AGAINST CONSTRUCTION TRAFFIC AS PART OF THE CONTRACTORS TEMPORARY WORKS REQUIREMENTS.
5. PROPOSED DRAINAGE PASSING THROUGH NEW FOUNDATIONS TO BE SLEEVED WITH CAST-IN OVERSIZED PIPEWORK.
6. EXACT LOCATION LINE AND LEVEL OF EXISTING STUBS TO EXISTING MANHOLES TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION.
7. COVER LEVELS SHOWN ARE APPROXIMATE ONLY AND SUBJECT TO MINOR ADJUSTMENT TO SUIT THE FINAL EXTERNAL WORKS AND LANDSCAPING SCHEME.
8. THE NUMBER AND LOCATION OF ALL RWP'S IS SHOWN INDICATIVE ONLY, ALL TO BE CONFIRMED BY ARCHITECT / M&E DESIGNER PRIOR TO COMMENCEMENT OF WORKS.
9. POP-UP POSITIONS FOR FOUL WATER APPLIANCES ARE SHOWN APPROXIMATE ONLY FOR THE PURPOSES OF UNDERSLAB DRAINAGE. EXACT LOCATIONS TO ARCHITECT'S SETTING OUT TO SUIT INTERIOR LAYOUTS ETC.
10. ALL ABOVE GROUND AND INTERNAL SURFACE AND FOUL WATER PIPEWORK TO SPECIALIST'S DESIGN/DETAIL. NOT SHOWN HERE.
11. SEE ARCHITECT'S DETAILS FOR ALL SETTING OUT DIMENSIONS TO BUILDINGS AND BOUNDARIES ETC.
12. ALL RWP'S AND SVP'S TO BE FITTED WITH RODDABLE ACCESS PLATES. ALL FOUL DRAINS TO HAVE RODDABLE ACCESS.
13. ALL CONNECTIONS TO ROAD GULLIES AND CHANNELS SHALL BE 150mm NOMINAL BORE PIPEWORK. CONNECTIONS TO RWP'S TO BE 100mm NOMINAL BORE PIPEWORK SUBJECT TO CONFIRMATION OF RWP SIZES AND/OR DESIGN FLOW. NO PIPE WORK TO BE DOWNSIZED IN THE DIRECTION OF FLOW.
14. CONNECTIONS TO FOUL TERMINAL FITTINGS TO BE 100MM NOMINAL BORE PIPEWORK SUBJECT TO CONFIRMATION OF ABOVE GROUND PIPE DIAMETERS AND/OR DESIGN FLOW. NO PIPE WORK TO BE DOWNSIZED IN THE DIRECTION OF FLOW.
15. ALL UN-NOTED PIPEWORK TO BE 100mm DIA. UNLESS SUBJECT TO THE NOTES ABOVE.
16. ALL PRIVATE PIPEWORK TO BE U-PVC TYPE IN ACCORDANCE WITH WIS 4-35-01 UNLESS OTHERWISE NOTED.
17. ADOPTABLE PIPES UP TO AND INCLUDING 150mm DIA. TO BE 28kN/m STRENGTH CLAYWARE TO BS EN 295 (LATEST VERSION).
18. ADOPTABLE PIPES ABOVE 150mm DIA. AND UP TO AND INCLUDING 300mm DIA. TO BE 36kN/m STRENGTH CLAYWARE TO BS EN 295 (LATEST VERSION).
19. ADOPTABLE PIPES ABOVE 300mm DIA. TO BE CLASS M (SRPC) CONCRETE PIPES TO BS 5911 (LATEST VERSION) WITH SPIGOT AND SOCKET FLEXIBLE JOINTS.
20. ALL PIPEWORK ENTERING AND EXITING MANHOLES TO BE CONNECTED WITH PIPE SOFFITS LEVEL, UNLESS OTHERWISE NOTED.
21. PRE-FORMED CHANNELS TO BE USED AT ALL MANHOLES.
22. HIGH STRENGTH CONCRETE BENCHING TO BE STEEL TROWELLED TO A DENSE SMOOTH FACE NEATLY SHAPED AND FINISHED TO ALL BRANCH CONNECTIONS AND LAID IN ACCORDANCE WITH THE SPECIFICATION.
23. PIPE BENDS TO BE PROVIDED TO SUIT DIRECTION OF FLOW.
24. GULLY TOPS AND MANHOLE COVERS TO BE PROVIDED IN ACCORDANCE WITH BS EN 124 (LATEST VERSION).
25. GROUP 1 (MIN. CLASS A15). AREAS USED AND ACCESSIBLE BY PEDESTRIANS AND CYCLISTS ONLY. NO EMERGENCY VEHICLES.
26. GROUP 2 (MIN. CLASS B125). FOOTWAYS, PEDESTRIAN AREAS, CAR PARKS. NO HGV'S.
27. GROUP 4 (MIN. CLASS D400). ALL OTHER AREAS INCLUDING CARRIAGEWAYS AND HGV TRAFFICKED AREAS.
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30. FIRST FLEXIBLE JOINT IN PIPES ADJACENT TO A MANHOLE SHALL BE 600mm MAX. FROM INSIDE FACE OF MANHOLE, CONNECTING TO ROCKER PIPE. FOR PIPE DIAMETERS 150mm - 450mm THE ROCKER PIPE LENGTH SHALL BE 500mm - 750mm AND FOR PIPE DIAMETERS 451mm - 675mm THE ROCKER PIPE LENGTH SHALL BE 750mm - 1000mm.
31. MANHOLES WITH OUTGOING PIPES GREATER THAN 600MM DIA. SHALL BE FITTED WITH GUARD BARS, SAFETY CHAINS OR OTHER APPROVED SAFETY DEVICES.
32. ALL SOFT SPOTS ENCOUNTERED IN THE TRENCH FORMATION TO BE REMOVED AND REPLACED WITH GRADED GRANULAR MATERIAL UNLESS INSTRUCTED OTHERWISE.
33. ALL PIPEWORK BELOW ROAD AND CAR PARKING WITH LESS THAN 1200mm COVER SHALL BE PROTECTED WITH A 150mm MIN FND2 CONCRETE SURROUND WITH FLEXELL ISOLATION JOINTS @ 2.0m MAX. CENTRES TO COINCIDE WITH PIPE JOINTS.
34. ALL BURIED CONCRETE MUST CATER FOR CLASS 2 SULPHATE'S CONDITIONS IN ACCORDANCE WITH TABLE 1 OF BRE DIGEST 363.
35. THE DESIGN OF ANY TEMPORARY WORKS REQUIRED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

rev	date	description	by	checked
P01	2018.03.23	SUITABLE FOR INFORMATION	RS	BW

PROJECT TITLE:
HAVERSTOCK HILL

CLIENT:
PPR ESTATES

DRAWING TITLE:
BELOW GROUND DRAINAGE BASEMENT LEVEL

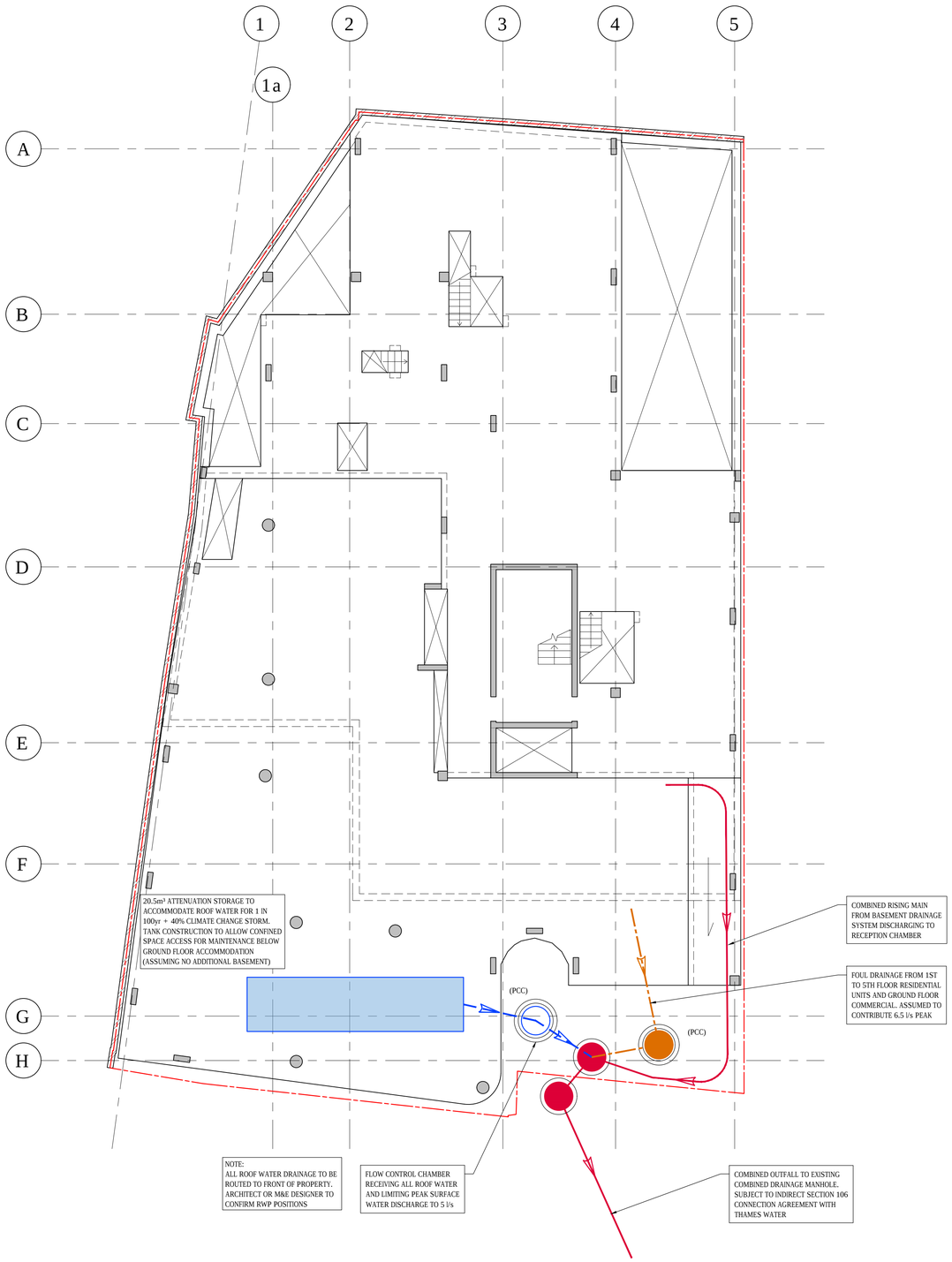
DRAWING No:
E0563-EEE-00-XX-DR-C-1900

SUITABILITY STATUS:
SUITABLE FOR INFORMATION

PROJECT No:	DRAWN:	CHECKED:	REV:	SCALE:
E0563	RS	BW	P01	1:100@A1

engineeria
structural and civil engineers

a: 7 Ridgmount Street, WC1E 7AE, London, United Kingdom
e: contact@engineeria.com
t: (+44)207 580 4588
w: www.engineeria.com



BELOW GROUND DRAINAGE GROUND FLOOR LEVEL

SCALE 1:100

WATERPROOFING TO ARCHITECT'S AND SPECIALIST DESIGN

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31. MANHOLES WITH OUTGOING PIPES GREATER THAN 600MM DIA. SHALL BE FITTED WITH GUARD BARS, SAFETY CHAINS OR OTHER APPROVED SAFETY DEVICES.
32. ALL SOFT SPOTS ENCOUNTERED IN THE TRENCH FORMATION TO BE REMOVED AND REPLACED WITH GRADED GRANULAR MATERIAL UNLESS INSTRUCTED OTHERWISE.
33. ALL PIPEWORK BELOW ROAD AND CAR PARKING WITH LESS THAN 1200mm COVER SHALL BE PROTECTED WITH A 150mm MIN FND2 CONCRETE SURROUND WITH FLEXELL ISOLATION JOINTS @ 2.0m MAX. CENTRES TO COINCIDE WITH PIPE JOINTS.
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P01	2018.03.23	SUITABLE FOR INFORMATION	RS	BW

PROJECT TITLE:
HAVERSTOCK HILL

CLIENT:
PPR ESTATES

DRAWING TITLE:
BELOW GROUND DRAINAGE GROUND FLOOR LEVEL

DRAWING No:
E0563-EEE-00-XX-DR-C-1901

SUITABILITY STATUS:
SUITABLE FOR INFORMATION

PROJECT No:	DRAWN:	CHECKED:	REV:	SCALE:
E0563	RS	BW	P01	1:100@A1

engineeria
structural and civil engineers

a: 7 Ridgmount Street, WC1E 7AE, London, United Kingdom
e: contact@engineeria.com
t: (+44)207 580 4588
w: www.engineeria.com

Appendix G - Site Investigation Report, BIA & UXO Risk Assessment

DESK STUDY & GROUND INVESTIGATION REPORT

18–22 Haverstock Hill
London NW3

Client: PPR Haverstock Hill LLP

Engineer: Engineeria Limited

J18009

April 2018

GEA

Document Control

Project title	18–22 Haverstock Hill, London, NW3 2BL	**Project ref**	J18009
Report prepared by	Lee Boswell BSc MSc FGS Assistant Geotechnical Engineer		
With input from	Martin Cooper BSc CEng MICE Technical Director		
	John Evans MSc FGS CGeol Consultant Hydrogeologist	Rupert Evans MSc CEnv CWEM MCIWEM AIEMA Consultant Hydrologist	
Report checked by	Caroline Anderson MEng AUS FGS Senior Geotechnical Engineer		
Report approved for issue by	Steve Branch BSc MSc CGeol FGS FRGS Managing Director		

Issue No	Status	Amendment Details	Date	Approved for Issue
1	Final Pre-Planning		23 March 2018	
2	Final	Including GMA and test results	20 April 2018	

This report has been issued by the GEA office indicated below. Any enquiries regarding the report should be directed to the office indicated or to Steve Branch in our Herts office.

✓	Hertfordshire	tel 01727 824666	mail@gea-ltd.co.uk
☐	Nottinghamshire	tel 01509 674888	midlands@gea-ltd.co.uk

This report is intended as a Ground Investigation Report (GIR) as defined in BS EN1997-2, unless specifically noted otherwise. The report is not a Geotechnical Design Report (GDR) as defined in EN1997-2 and recommendations made within this report are for guidance only.

CONTENTS

EXECUTIVE SUMMARY

This executive summary contains an overview of the key findings and conclusions. No reliance should be placed on any part of the executive summary until the whole of the report has been read. Other sections of the report may contain information that puts into context the findings that are summarised in the executive summary.

BRIEF

This report describes the findings of a site investigation carried out by Geotechnical and Environmental Associates Limited (GEA) on the instructions of Engineeria, on behalf of PPR Haverstock Hill LLP, with respect to the proposed demolition of the existing building, and subsequent construction of a six-storey building with a single level basement beneath the rear of the building. The purpose of the investigation has been to research the history of the site with respect to possible contaminative uses, to determine the ground conditions and hydrogeology, to assess the extent of any contamination and to provide information to assist with the design of the basement structure and suitable foundations for the proposed development. The report also includes information required to comply with London Borough of Camden (LBC) Draft Planning Guidance CPG4, relating to the requirement for a Basement Impact Assessment (BIA), along with a ground movement analysis and building damage assessment.

SITE HISTORY

The earliest map studied, Greenwood's map of London, dated 1827, shows the site to have been developed with the existing building. By the time of the Ordnance Survey (OS) map, dated 1873, the site was developed with a terrace of three houses in a similar layout to the existing houses. The houses had private front and rear gardens, with a side access to the rear gardens adjacent to the northwestern boundary. By 1895, the southeastern house had been replaced with two terraced houses, which extended to the southern boundary of the site. An aerial photograph dated 1948 shows the site immediately to the northwest to have been cleared, suggesting this area suffered bomb damage during World War II (WWII), although the site itself was apparently undamaged. The map dated 1987 shows the large outbuilding in the north had been cleared, and what appears to be four private garages had been constructed adjacent to the northeastern boundary. The private garages are no longer present and a wooden cabin had been constructed in the northern corner of the site. The site and surrounding area have since remained essentially unchanged.

GROUND CONDITIONS

Below a moderate thickness of made ground, the London Clay Formation was encountered to the maximum depth of the investigation. The made ground extended to depths of between 1.00 m and 1.50 m and comprised slightly clayey gravelly sand with variable amounts of extraneous material. The London Clay initially comprised firm becoming stiff medium to high strength brown becoming mottled grey and bluish grey fissured silty clay, to a depth of 11.40 m (20.71 m OD), over very stiff very high becoming extremely high, locally high strength brownish grey fissured silty locally very silty clay, to the full depth of the investigation, of 25.00 m (7.11 m OD). Groundwater was not encountered during drilling but has subsequently been measured at depths of between 4.36 m (27.20 m OD) and 5.84 m (25.41 m OD). Contamination testing has indicated elevated concentrations of lead, benzo(a)anthracene and benzo(a)pyrene, benzo(a)flouranthene, Total PAH and Total TPH, within a number of samples tested. Fragments of asbestos-containing material (ACM) were identified in Borehole No 2.

BIA CONCLUSIONS

The BIA has not indicated any concerns with regard to the effects of the proposed basement on the site and surrounding area. It has been identified that the impacts identified can be mitigated by appropriate design and standard construction practice. A ground movement analysis and building damage assessment has been carried out and the predicted movements fall within acceptable limits. An assessment of the effect of movements on the adjacent LU tunnel has indicated a maximum movement of 2 mm.

RECOMMENDATIONS

It is understood that it is proposed to demolish the existing building and construct a new six-storey building with single level basement across the entire site. The proposed basement will extend to a depth of 4.5 m and formation level for the proposed basement will therefore be within the stiff silty clay of the London Clay. A raft foundation is understood to be the preferred foundation method, with an applied pressure understood to be in the region of 60 kN/m^2. It is likely that the construction of the retaining walls by casting reinforced concrete retaining walls, in the same sequence as underpinning walls, is the preferred retaining wall option. On the basis of the fieldwork and subsequent monitoring, significant inflows of groundwater are unlikely to be encountered within the basement excavation during construction.

Part 1: INVESTIGATION REPORT

This section of the report details the objectives of the investigation, the work that has been carried out to meet these objectives and the results of the investigation. Interpretation of the findings is presented in Part 2.

1.0 INTRODUCTION

Geotechnical and Environmental Associates Limited (GEA) has been commissioned by Engineeria Ltd, on behalf of PPR Haverstock Hill LLP to carry out a desk study and ground investigation at Nos 18–22 Haverstock Hill, London, NW3 2BL.

This report also forms part of a Basement Impact Assessment (BIA), which has been carried out in accordance with guidelines from the London Borough of Camden (LBC) in support of a planning application. A ground movement assessment has also been carried out and the results are presented in Part 3 of this report.

1.1 Proposed Development

It is understood that consideration is being given to the demolition of the existing building and construction of a new six-storey building, with a single level basement beneath the rear of the building.

This report is specific to the proposed development and the advice herein should be reviewed once the development proposals are finalised.

1.2 Purpose of Work

The principal technical objectives of the work carried out were as follows:

- to check the history of the site with respect to previous contaminative uses;
- to determine the risk posed by unexploded ordnance (UXO);
- to determine the ground conditions and their engineering properties;
- to determine the configuration of the existing foundations;
- to provide advice and information with respect to the design of foundations and retaining walls;
- to provide an indication of the degree of soil contamination present;
- to assess the risk that any such contamination may pose to the proposed development, its users or the wider environment; and
- to assess the possible impact of the proposed development on the local hydrogeology, hydrology and stability of surrounding structures in support of a planning application.