SUDS MAINTENANCE AND MANAGEMENT PLAN

17 – 37 WILLIAM ROAD

LONDON NW1 3ER

MAY 2021

SE1714-ISS-XX-XX-RP-C-0002

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REPORT ISSUE

Revision	Date	Notes
P01	19/05/2021	First Issue

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DISCLAIMER

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1 INTRODUCTION

1.1 COMMISSION

1.1.1 This SuDS Maintenance & Management Plan (SMMP) has been prepared by Iesis Structures on behalf of Euston One Limited ('the Applicant') in support of an application for full planning permission for the redevelopment of 17-37 William Road, London, NW1 3ER ('the Site').

1.2 OBJECTIVE

1.2.1 This SMMP provides information on the long-term maintenance of the implemented SuDS features serving the site.

1.3 MAINTENANCE RESPONSIBILITIES

1.3.1 An Estate Management Company will be set up by the Client to ensure ongoing compliance with the requirements of the SMMP.

1.4 SUPPORTING DOCUMENTS

1.4.1 The Site Drainage plan to which this SMMP relates is contained in Appendix A. SuDS features which are not located at ground floor level are as follows:

- Green roofs: setback roofs on 6th and 8th floors
- Blue roof: 15th floor roof
- Rainwater harvesting system: provisional location in cinema room

2 MAINTENANCE SCHEDULE

2.1 SURFACE WATER DRAINAGE – CATCHPITS, GULLIES & CHANNELS

Schedule	Action	Frequency
Regular Maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	6-monthly intervals.
	Common hardstanding areas to be swept clear of debris, to prevent possibility of blockages to the receiving drainage systems.	Weekly.
	Debris removal from gullies & silt pits (where may cause risks to performance).	6-monthly intervals, after autumn leaf fall, or as required based on specific observations.
	Lift and inspect receiving manholes to check for any blockages.	Monthly.
Remedial Actions	Repair any damaged gully gratings or silt pit covers.	As required.

2.2 CELLULAR TANK

Maintenance Schedule	Required action	Typical frequency
Regular maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, annually
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	Remove sediment from pre-treatment structures i.e. catchpits	Annually, or as required
Remedial actions	Repair/rehabilitate vent pipes	As required
Monitoring	Inspect/check vents	Annually
	Survey inside of tank for sediment build-up and remove if necessary.	Every 5 years or as required.

2.3 FLOW CONTROL DEVICE (HYDRO-BRAKE)

2.3.1 Little maintenance is usually required as there are no moving parts within the Hydro-Brake flow control. If blockages occur, they may do so at the intake.

2.3.2 Following installation of the Hydro-Brake flow control it is vitally important that any extraneous material i.e. building materials are removed from the unit and the chamber. After the system is made live, it is recommended that the unit be inspected monthly for three months and thereafter at six monthly intervals with hose down if required.

2.3.3 All Hydro-Brake flow control units are typically manufactured from grade 304 Stainless Steel, and if required they can also be manufactured in grade 316 Stainless Steel. Both materials have an estimated life span in excess of the design life of drainage systems.

2.3.4 Carrying out the maintenance indicated in sub-sections 2.3 and 2.5 will also help prevent any unwanted blockages.

2.3.5 As the manhole (ref 'Control Manhole' on the Site Drainage plan contained in Appendix A) containing the Hydro-Brake is deep (>3m), operatives undertaking maintenance of the flow control will require confined spaces training and breathing equipment.

2.4 GREEN ROOFS

Maintenance Schedule	Required action	Typical frequency
Regular Inspections	Inspect all components including soil substrate, vegetation, drains, irrigation systems (if applicable), membranes and roof structure for proper operation, integrity of waterproofing and structural stability	Annually and after severe storms
	Inspect soil substrate for evidence of erosion channels and identify any sediment sources	Annually and after severe storms
	Inspect drain inlets to ensure unrestricted runoff from the drainage layer to the conveyance or roof drain system	Annually and after severe storms
	Inspect underside of roof for evidence of leakage	Annually and after severe storms
Remedial maintenance	Remove debris and litter to prevent clogging of inlet drains and interference with plant growth	Six monthly and annually or as required
	During establishment (ie year one), replace dead plants as required	Monthly (but usually responsibility of manufacturer)
	Post establishment, replace dead plants as required (where 5% of coverage)	Annually (in autumn)
	Remove fallen leaves and debris from deciduous plant foliage	Six monthly or as required
	Remove nuisance and invasive vegetation, including weeds	Six monthly or as required
	Mow grasses, prune shrubs and manage other planting (if appropriate) as required - clippings should be removed and not allowed to accumulate	Six monthly or as required
Remedial actions	If erosion channels are evident, these should be stabilised with extra soil substrate similar to the onginal material,	As required

	and sources of erosion damage should be identified and controlled	
	It drain inlet has settled, cracked or moved, investigate and repair as appropriate	As required

2.5 RAINWATER HARVESTING

2.5.1 Servicing and inspection of the rainwater harvesting will be as per manufacturer's guidelines by professionals as part of a service contract.

2.6 BLUE ROOF

2.6.1 Frequency: minimum of 2No inspections per year.

2.6.2 Inspections and ongoing maintenance to be carried out by blue roof supplier's approved contractors in order to maintain warranty.

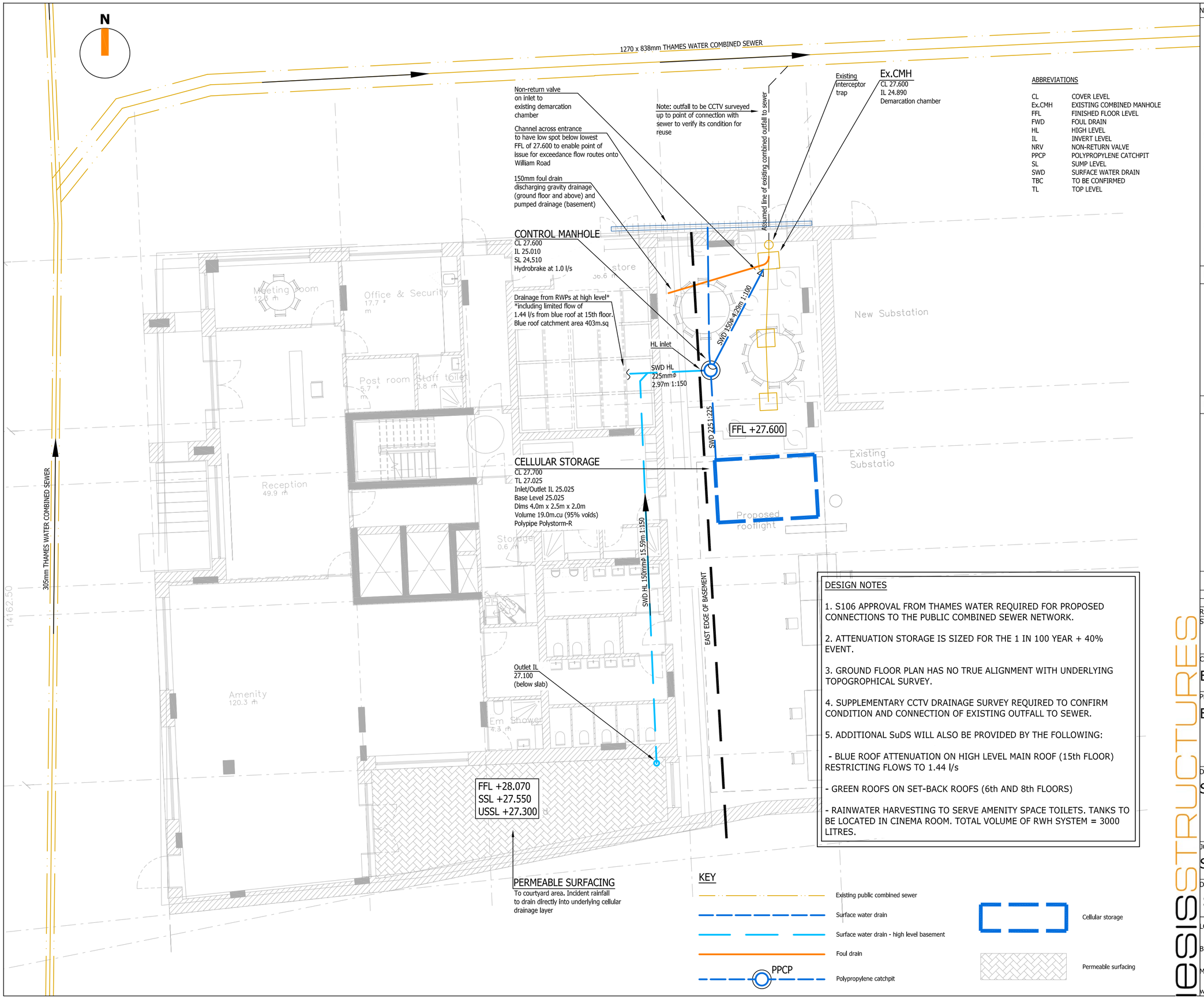
2.6.3 A typical service programme includes:

- perform a review of the blue roof area to determine what remedial work, if any, needs to be done.
- Inspect blue roof restrictor chambers, orifices & roof outlets, with removal of any debris or vegetation to enable water to flow freely through the rainwater outlet.
- Inspect blue roof restrictor chamber particle filter boards, replacing as necessary.
- Identification and reporting back of any general roof issues to the building owner to include obvious roofing maintenance requirements or defects that may require additional remedial work.

2.7 PERMEABLE PAVING

Maintenance Schedule	Required action	Typical frequency
Regular maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, annually
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	Remove sediment from surface water chamber sumps	Annually, or as required
	Brushing of patio	Weekly, or as required
Monitoring	Inspect for evidence of poor operation and/or weed growth – if require, take remedial action.	Three-monthly, 48 h after large storms first six months.

APPENDIX: SITE DRAINAGE PLAN



ABBREVIATIONS

CL	COVER LEVEL
Ex.CMH	EXISTING COMBINED MANHOLE
FFL	FINISHED FLOOR LEVEL
FWD	FOUL DRAIN
HL	HIGH LEVEL
IL	INVERT LEVEL
NRV	NON-RETURN VALVE
PPCP	POLYPROPYLENE CATCHPIT
SL	SUMP LEVEL
SWD	SURFACE WATER DRAIN
TBC	TO BE CONFIRMED
TL	TOP LEVEL

DESIGN NOTES

1. S106 APPROVAL FROM THAMES WATER REQUIRED FOR PROPOSED CONNECTIONS TO THE PUBLIC COMBINED SEWER NETWORK.

2. ATTENUATION STORAGE IS SIZED FOR THE 1 IN 100 YEAR + 40% EVENT.

3. GROUND FLOOR PLAN HAS NO TRUE ALIGNMENT WITH UNDERLYING TOPOGROPHICAL SURVEY.

4. SUPPLEMENTARY CCTV DRAINAGE SURVEY REQUIRED TO CONFIRM CONDITION AND CONNECTION OF EXISTING OUTFALL TO SEWER.

5. ADDITIONAL SuDS WILL ALSO BE PROVIDED BY THE FOLLOWING:

- BLUE ROOF ATTENUATION ON HIGH LEVEL MAIN ROOF (15th FLOOR) RESTRICTING FLOWS TO 1.44 l/s

- GREEN ROOFS ON SET-BACK ROOFS (6th AND 8th FLOORS)

- RAINWATER HARVESTING TO SERVE AMENITY SPACE TOILETS. TANKS TO BE LOCATED IN CINEMA ROOM. TOTAL VOLUME OF RWH SYSTEM = 3000 LITRES.

KEY

- Existing public combined sewer
- Surface water drain
- Surface water drain - high level basement
- Foul drain
- PPCP — Polypropylene catchpit
- Cellular storage
- Permeable surfacing

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS (mm) ALL LEVELS ARE IN METERS (m).
2. DO NOT SCALE FROM DRAWINGS, WORK TO FIGURED DIMENSIONS ONLY.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS AND SPECIALISTS DRAWINGS, THE SPECIFICATION AND THE CONTRACT DOCUMENTS.
4. ALL WORK IS TO COMPLY WITH THE RELEVANT EUROCODES, CODES OF PRACTICE AND THE BUILDING REGULATIONS.
5. ANY DISCREPANCIES BETWEEN THE ARCHITECTS AND THE ENGINEERS DRAWINGS TO BE BROUGHT TO THE ATTENTION OF THE DESIGN TEAM.
6. ALL SETTING OUT TO BE VERIFIED WITH THE ARCHITECT PRIOR TO COMMENCEMENT OF SITE CONSTRUCTION.
7. WORKS TO ENSURE THE STRUCTURAL STABILITY OF ALL ELEMENTS IN THEIR TEMPORARY STATE DURING CONSTRUCTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. ALL FOUNDATION WORKS ARE TO BE UNDERTAKEN IN ACCORDANCE WITH PARTY WALL AWARDS.
9. FOR FULL DESIGN NOTES REFER TO IESIS DRAWING: XXX-ISS-XX-XX-DR-S-7000.

KEY:

LEGEND:

REV	DATE	DRAWN/CHK	REVISION INFO
P03	18.05.21	JR/MR	REVISED TO TAKE ACCOUNT OF ALL SUDS
P02	15.10.20	JR/MR	REVISED TO LATEST GA
P01	07.09.20	JR/MR	INITIAL PRELIMINARY ISSUE

STATUS:

PRELIMINARY

CLIENT:

EUSTON ONE LIMITED

PROJECT:

EUSTON ONE

DRAWING TITLE:

SITE DRAINAGE STRATEGY

JOB NUMBER:	SCALE AT A1:	REV. STATUS:
SE1714	1:100	S3

DRAWING NUMBER: SE1714-ISS-XX-00-DR-C-3000 REVISION: P03

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