

THESE NOTES ARE BASED ON THE USE OF EXPERIENCED AND COMPETENT CONTRACTORS CARRYING OUT THE WORK USING AN APPROVED SAFE METHOD OF WORKING

KEY TO HEALTH AND SAFETY SYMBOLS

- INDICATES A RESIDUAL RISK REQUIRING A COMPULSORY ACTION
- INDICATES A RESIDUAL RISK FOR INFORMATION
- INDICATES A RESIDUAL RISK REQUIRING A PROHIBITIVE ACTION
- INDICATES A RESIDUAL RISK AS A WARNING

- ALL EXTERNAL UTILITIES AND DRAINAGE TAKEN FROM THIRD PARTY SURVEY INFORMATION AND IS TO BE CHECKED AND VERIFIED ON SITE PRIOR TO UNDERTAKING OF ANY WORKS.
- THE ROUTE AND POSITIONS OF ALL NEW DRAINS AND MANHOLES IS TO BE COORDINATED WITH EXISTING UTILITIES, TREES AND STREET FURNITURE ETC.

THE PROPOSED ACCESS ROAD IS NOT PART OF THE NATURAL HISTORY MUSEUM APPLICATION. SEE UNIVERSITY OF READING APPLICATION FOR DETAILS OF THE ACCESS ROAD.

EAST SWALE
AVERAGE DEPTH: 250mm
TRENCH DEPTH: 450mm
SIDE SLOPES: 1/3
LONG SLOPE: 1/200
VOLUME: 200m³
MAX DISCHARGE RATE: 13 L/s

HEADWALL 05
IL 41.680

SW
150mm @ 1:38

MS
IL: 41.810
IL: 42.000
IL: 42.000

ALL RAIN WATER PIPE CONNECTIONS TO BE 100mm DIAMETER AND ALL EXTERNAL SURFACE WATER PIPES TO BE 150mm DIAMETER UNLESS OTHERWISE NOTED.

UPSTREAM CONNECTION INTO SWMH02 TO CONNECT FROM THE BACK OF THE STRUCTURE WITH A 90 DEGREE BEND, ALLOWING FOR LEVEL INVERTS.

ATTENUATION POND
EXCEEDANCE LEVEL: 41.900
BASE LEVEL: 40.300
OUTLET LEVEL: 41.200
PERMANENT WATER DEPTH: 0.9m
ATTENUATION DEPTH: 0.7m
AREA: 515m²
SIDE SLOPES: 1/5
ATTENUATION VOLUME: 250m³

CHANNEL DRAIN TO ACT AS OVERFLOW MECHANISM
INSTALLED ALONG THE BACK OF THE FIRST STEP AS PER LANDSCAPE ARCHITECT DRAWING

HEADWALL 04 (OUTLET)
IL 41.200

SWMH 03
CL 42.750
IL 41.176

HYDROBRAKE 01
DESIGN FLOW: 2L/s
UNIT REF: SHE-0071-2000-0700-2000

PERMEABLE PAVING 04
OUTLET CL: 42.300
OUTLET IL: 41.600
150mm PERFORATED PIPE TO BE LAID AT 1/300
AREA: 215m²
ATTENUATION DEPTH: 620mm
ATTENUATION VOLUME: 34m³
MAX DISCHARGE RATE: 2 L/s

PERMEABLE PAVING 03
OUTLET CL: 42.300
OUTLET IL: 41.650
150mm PERFORATED PIPE TO BE LAID AT 1/300
AREA: 200m²
ATTENUATION DEPTH: 570mm
ATTENUATION VOLUME: 34m³
MAX DISCHARGE RATE: 3 L/s

PERMEABLE PAVING 01
OUTLET CL: 42.300
OUTLET IL: 41.775
150mm PERFORATED PIPE TO BE LAID AT 1/300
AREA: 210m²
ATTENUATION DEPTH: 445mm
ATTENUATION VOLUME: 28m³
MAX DISCHARGE RATE: 3 L/s

PERMEABLE PAVING 02
OUTLET CL: 42.300
OUTLET IL: 41.750
150mm PERFORATED PIPE TO BE LAID AT 1/300
AREA: 200m²
ATTENUATION DEPTH: 470mm
ATTENUATION VOLUME: 28m³
MAX DISCHARGE RATE: 3 L/s

HEADWALL 01
IL: 41.500

PPIC 04
CL 42.300
IL 41.561

PPIC 03
CL 42.300
IL 41.632

PPIC 02
CL 42.300
IL 41.677

PPIC 01
CL 42.300
IL 41.750

SWMH02
CL 42.450
IL 41.589

HEADWALL 02
IL: 41.485

PPIC 10
CL 42.650
IL 41.389

PPIC 09
CL 42.475
IL 41.440

PPIC 08
CL 42.475
IL 41.450

PPIC 07
CL 42.475
IL 41.456

PPIC 06
CL 42.475
IL 41.462

HEADWALL 03
IL: 41.356
TIDEFLEX NON-RETURN VALVE OR SIMILAR

RAIN GARDEN 09
MAX PLANTING DEPTH: 800mm

RAIN GARDEN 08
MAX PLANTING DEPTH: 710mm

RAIN GARDEN 12
MAX PLANTING DEPTH: 680mm

RAIN GARDEN 06
MAX PLANTING DEPTH: 550mm

RAIN GARDEN 11
MAX PLANTING DEPTH: 765mm

RAIN GARDEN 07
MAX PLANTING DEPTH: 575mm

RAIN GARDEN 05
MAX PLANTING DEPTH: 275mm

RAIN GARDEN 13
MAX PLANTING DEPTH: 700mm

RAIN GARDEN 14
MAX PLANTING DEPTH: 850mm

PPIC 30
CL 42.700
IL 41.375

PPIC 15
CL 42.400
IL 41.334

PPIC 16
CL 42.300
IL 41.294

PPIC 12
CL 42.435
IL 41.056

PPIC 13
CL 42.600
IL 40.932

PPIC 21
CL 42.500
IL 41.287

PPIC 17
CL 42.600
IL 41.124

PPIC 18
CL 42.475
IL 41.045

PPIC 19
CL 42.4
IL 41.0

RAIN GARDEN 10
MAX PLANTING DEPTH: 875mm

RAIN GARDEN 01
MAX PLANTING DEPTH: 650mm

RAIN GARDEN 02
MAX PLANTING DEPTH: 725mm

RAIN GARDEN 03
MAX PLANTING DEPTH: 1000mm

METRES
0 2 5 10 25
@ 1:250

UPDATED DRAINAGE SCHEME
TO SUIT STAGE 4 DESIGN

COPYRIGHT RAMBOLL UK LIMITED. ALL RIGHTS RESERVED. THIS DOCUMENT IS ISSUED FOR THE PARTY WHO COMMISSIONED IT AND FOR THE SPECIFIC PURPOSES CONNECTED WITH THE PROJECT ONLY. IT SHOULD NOT BE RELIED UPON BY ANY OTHER PARTY OR USED FOR ANY OTHER PURPOSE. RAMBOLL ACCEPTS NO RESPONSIBILITY OR LIABILITY WHICH MAY ARISE FROM RELIANCE OR USE OF THIS DOCUMENT OR THE DATA CONTAINED HEREIN BY ANY OTHER PARTY OR FOR ANY OTHER PURPOSE.

Notes

- DO NOT SCALE FROM THIS DRAWING.
- ALL DIMENSIONS ARE MILLIMETRES U.N.O.
- ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM U.N.O.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
- THIS DRAWING IS TO BE READ IN RELATION TO THE SUBJECT OF THE TITLE. OTHER INFORMATION IS CONSIDERED INDICATIVE ONLY.
- ROOF DOWN POINTS SUBJECT TO CHANGE PENDING RECEIPT OF DETAILS FROM SPECIALIST ROOFING CONTRACTOR

KEY:

- PLANNING BOUNDARY
- SW SURFACE WATER DRAIN
- ACO MULTIDRAIN BRICKSLOT CHANNEL
- 150mm PERFORATED PIPE
- SURFACE WATER MANHOLE
- SURFACE WATER PPIC
- HEADWALL
- SURFACE WATER MANHOLE WITH HYDROBRAKE
- PROPOSED ATTENUATION TANK
- PROPOSED BLUE ROOF
- PROPOSED SWALE
- PROPOSED ATTENUATION POND
- PROPOSED PERMEABLE PAVING
- PROPOSED RAIN GARDENS
- DRAINAGE DOWN POINT
- OIL SEPARATOR
- CHANNEL DRAIN SUMP UNIT

P06	STAGE 4 ISSUE	13.05	PC	DS
P05	TENDER ISSUE	29.01	PC	DS
P04	ISSUED FOR PLANNING	10.11	PC	DS
P03	STAGE 3	27.10	RR	DS
P02	ISSUED FOR PLANNING	13.10	PC	DS
P01	STAGE 3 - FOR REVIEW AND COMMENT	29.09	PC	DS

Rev	Description	Date	By	App
-----	-------------	------	----	-----

STATUS - S3

NHM_UNLOCKED

RAMBOLL

tel 020 7631 5291 london@ramboll.co.uk
www.ramboll.co.uk

SURFACE WATER DRAINAGE
SHEET 1

Project No:	Scale (@A1):	Drawn:	Date:
1620012379	1:200	PC	MAY 24
Drawing No:	Substability:	Rev:	
RD001-RAM-XX-00-DR-C-0101	S3	P06	