



BROMLEY CIVIC CENTRE, STOCKWELL CLOSE, BROMLEY BRI 3UH

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FAX: 020 8290 0608

DATE: 21 November 2023

## **DEVELOPMENT CONTROL COMMITTEE**

**Meeting to be held on Thursday 30 November 2023**

**Please see the attached addendum to the agenda.**

- 5 (21/05585/FULL1) - 2 - 4 RINGERS ROAD AND 5 ETHELBERT ROAD, BR1 1HT  
(BROMLEY TOWN WARD) (Pages 1 - 20)**

*Copies of the documents referred to above can be obtained from  
<http://cds.bromley.gov.uk/>*

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## Addendum

### Development Control Committee 30<sup>th</sup> November 2023

#### Item 5; 2-4 Ringers Road and 5 Ethelbert Road, BR1 1HT (21/05585/FULL1).

Officers would like to advise Members that the following additional information was provided by the Applicant following the publication of the agenda:

- An email from PA Housing expressing their interest in the site (Appendix 1).
- A letter from Water Environment Ltd confirming the revised SuDS strategy for the site would incorporate an area of crated storage in the courtyard area. The strategy proposes a stormwater drainage discharge rate of 2 l/s from site, connecting to the existing Thames Water stormwater sewer in Ringer's Road (Appendix 2).
- Revised Accommodation Schedule (Appendix 3).

Officers would like to offer the following updates to the report published:

Summary Tables:

<b>Residential Use</b>					
	Number of bedrooms per unit				
	1	2	3	4 Plus	Total / Payment in lieu
Market	35	26	0	0	61
Affordable (shared ownership)	6	7	0	0	13
Affordable (social rent)	12	8	0	0	20
<b>Total</b>	<b>53</b>	<b>41</b>	<b>0</b>	<b>0</b>	<b>94</b>

<b>Section 106 Heads of Term</b>	<b>Amount</b>	<b>Agreed in Principle</b>
Carbon offset payment (total)	£77,493	Yes
Children Playspace	£19,130.88	Yes

Affordable housing: 35% (20 SLR and 13 SO)	NA	Yes
Early-stage affordable housing viability review	NA	Yes
Value of the tree to be lost using 'i-tree' or 'CAVAT'	TBC	Yes
Removal of rights for resident's permit	NA	Yes
Legible London	£22,000	Yes
Healthy Streets	TBC	Yes
Obligation monitoring fee	£500 per head of term	Yes
Total	TBC	Yes

- Remove the 8<sup>th</sup> bullet point from the **SUMMARY OF KEY REASONS FOR RECOMMENDATION**
- 6.1.29 Under Part C (4) the applicant is required to demonstrate that they have sought grant to increase the level of affordable housing above this 35%. The Planning Statement advises that the Mayor's strategic 50% target has been considered in the context of the proposal, but "*given the significant costs involved in carrying out the development, an affordable housing contribution in excess of the 35% target would render the scheme unviable and undeliverable*". In order to try and address H5C4 the applicant submitted further supporting email on 28<sup>th</sup> November from PA Housing. This demonstrates that grant has been sought.
- 6.1.30 Notwithstanding the above, the proposal does not satisfy all other policy requirements and obligations 'to the satisfaction of the borough and the Mayor where relevant' - as prescribed by Part C (3). This is further discussed in the subsequent sections of this report and demonstrates that the proposal fails to meet Part C(4) of Policy H5 and does not qualify for the Fast-Track Route.
- 6.1.34 Amend to read: 'The affordable rent units would comprise 12 x 1 bedroom and 8 x 2 bedroom units'.
- 6.12.15 Replace 'As no additional information has been received from the applicant, the proposed drainage strategy is considered contrary to London Plan Policies SI12 and SI13 and BLP Policy 116, and a reason for refusal is recommended on this ground'.  
with  
'In response to the Lead Local Flood Authority's (LLFA) comments, the Applicant submitted a letter from Water Environment Ltd dated 27<sup>th</sup> November 2023 which confirms that the revised SuDS strategy for the site would incorporate an area of crated storage in the courtyard area and that a stormwater drainage discharge rate of 2 l/s from site would be achieved, in line with London Plan Policies SI12 and SI13 and BLP Policy 116. No objections

*are raised in this regard subject to the imposition of appropriate conditions in any consent.'*

- 7.19 Playspace contribution to be amended to £19,130.88 and Loss of Income (P&D parking bays) contribution of £190,240 to be removed.
- 7.21 (Numbered incorrectly as 7.16) Amend to read: The applicant has agreed the above Heads of Term, in principle. However, as no draft legal agreement was submitted, a reason for refusal relating to the lack of acceptable planning obligations is recommended.
- 8.4 Add: *'The proposed drainage strategy and' to 'environmental matters such as air quality, contamination and light pollution would be subject to appropriate conditions if the application was deemed acceptable overall.'*
- 8.10 Remove Paragraph
- 8.14 Remove *'confirmed the required planning obligations, as stated within paragraph 7.19 nor'*.
- Amend Reason for Refusal 1 to read:

**The application does not comply with all the criteria listed in London Plan Policy H5C. The application therefore fails to meet the criteria necessary to qualify for the Fast Track Route and in the absence of a Financial Viability Assessment the application fails to demonstrate that the proposal would maximise the delivery of affordable housing, thereby contrary to Policy H4 and H5 of the London Plan and Local Policy 2.**
- Remove Reason for Refusal 6.

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## Mark Batchelor

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**From:** Mark Batchelor  
**Sent:** 28 November 2023 09:41  
**To:** Mark Batchelor  
**Subject:** FW: Ringers Road, Bromley

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**From:** Peter Beggan  
**Date:** Monday, 27 November at 18:59  
**To:** David Francis Tom Castro  
**Subject:** Ringers Road, Bromley

Dear David,

Thank you for introducing your site at Ringers Road, Bromley to PA Housing.

To further confirm, and as previously discussed, we are potentially interested in the site on the basis of either Section 106, land or a package basis, subject to us receiving more information.

It fits our acquisition profile, so we would be interested to progress dialogue once planning permission is secured.

Should you have any queries please do not hesitate to contact me.

Kind regards

Pete

**Peter Beggan** | Assistant Director - New Business

London Office | Halkin, Paris Gardens, SE1 8DB

Walton Office | Case House | 85-89 High Street | Walton-on-Thames | Surrey | KT12 1DZ

9 High Street, Walton-on-Thames, Surrey, KT12 1DZ Community Benefit Societies No. 7536. Homes and Communities Agency No.4849

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Our Ref: 20108-SWD-CO-01 C01

27 November 2023

London Borough of Bromley

Water Environment Limited  
6 Coppergate Mews  
Brighton Road  
Surbiton  
London  
KT6 5NE

Tel: 020 8545 9720

[www.WaterEnvironment.co.uk](http://www.WaterEnvironment.co.uk)

**By Email:**

To whom it may concern,

**2-4 RINGS ROAD**  
**RESPONSE TO LLFA COMMENTS**

This letter has been prepared in response to the Lead Local Flood Authority's (LLFA) comments on the proposed Sustainable Drainage System (SuDS) Strategy for the site at Ringers Road, Bromley, planning reference 21/05585/FULL1. The comment from the LLFA was as follows:

*"The acceptance of Thames Water of a discharge rate of 5l/s is subject to LLFA's approval of the sequential approach to the disposal of surface water. We consider in this case that the proposed discharge of 5l/s is high and would require the applicant to increase its storage volume to restrict the rate to maximum of 2l/s for all events including the 1 in 100 year plus 40% climate change. I do not accept the findings of the submitted FRA."*

Water Environment Ltd have revised the SuDS strategy for the site and incorporated an area of crated storage in the courtyard area. The strategy proposes a stormwater drainage discharge rate of 2 l/s from site, connecting to the existing Thames Water stormwater sewer in Ringer's Road.

The updated MicroDrainage calculations and SuDS strategy drawing are appended to this letter. It is considered that the appended information satisfies the concerns raised by the LLFA.

Yours sincerely,

**Agnes Gannon**

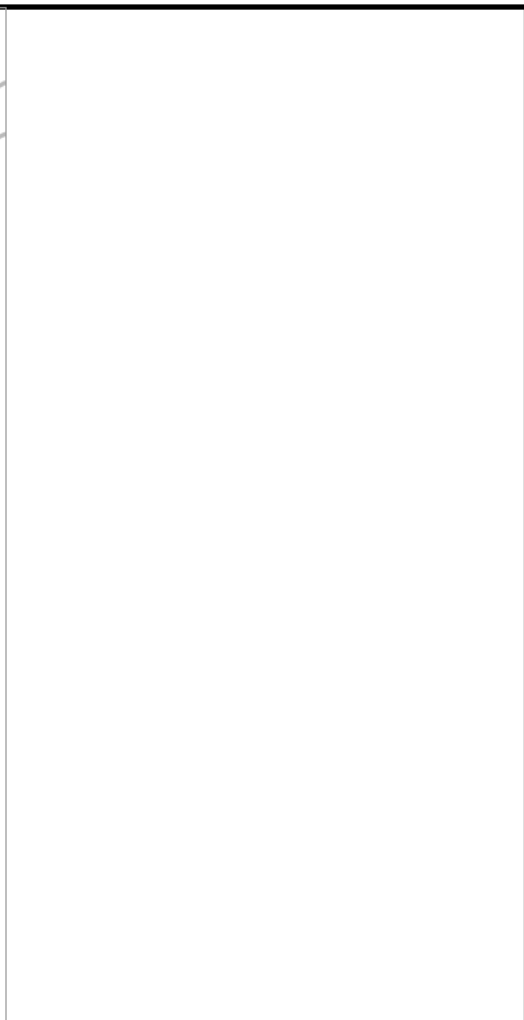
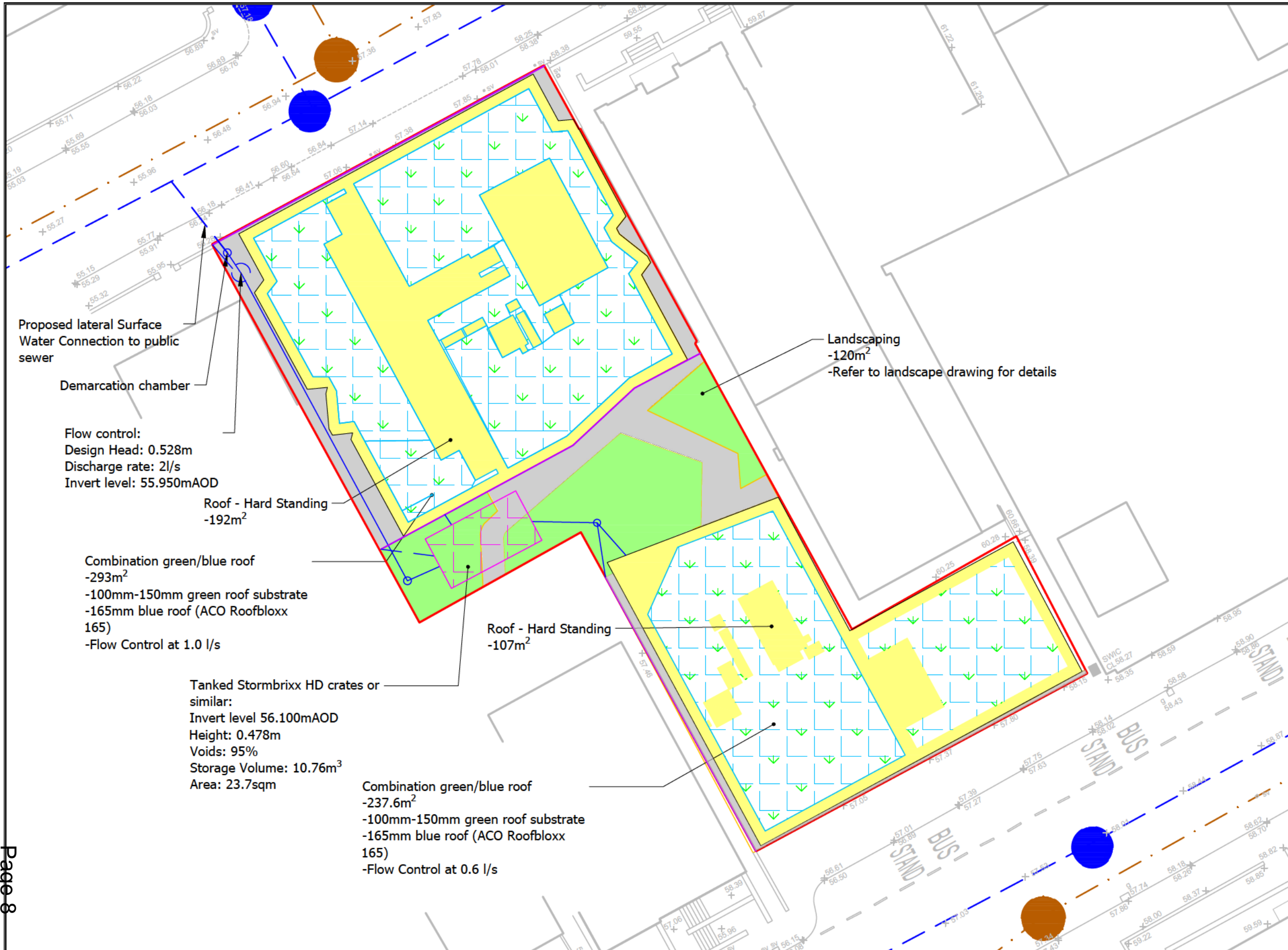
B Eng (Civil)

**Principal Engineer**

**Encl.**

**20108-SWD-DP-01-C02**


**20108-SWD-MH-01-C01**



CO2	27/11/23	Strategy amended following LLFA comments	AMG	TC
REV	DATE	AMENDMENTS	DR	AP

CLIENT:	Ringer Road Properties Ltd
PROJECT:	2-4 Ringer Road
DRAWING:	Outline SuDS

SCALE @A3:	1:250	DATE:	14/04/23
DRAWN:	CB	CHECKED:	GE
APPROVED:	GL	REVISION:	C02
DRAWING NO:	20108-SWD-PD-01		

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6 Coppergate Mews Brighton Road Surbiton KT6 5NE		
Date 27/11/2023 19:12 File 20108-SWD-MH-01-C01.MDX	Designed by Agnes.Gannon Checked by	
Micro Drainage		Network 2017.1.2


Area Summary for Storm

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	-	-	100	0.000	0.000	0.000
2.000	User	-	100	0.004	0.004	0.004
	User	-	100	0.003	0.003	0.007
	User	-	100	0.002	0.002	0.009
	User	-	100	0.000	0.000	0.010
	User	-	100	0.000	0.000	0.010
	User	-	100	0.001	0.001	0.011
	User	-	100	0.000	0.000	0.012
1.001	-	-	100	0.000	0.000	0.000
1.002	-	-	100	0.000	0.000	0.000
3.000	User	-	100	0.013	0.013	0.013
	User	-	100	0.004	0.004	0.017
	User	-	100	0.001	0.001	0.017
	User	-	100	0.000	0.000	0.017
	User	-	100	0.001	0.001	0.019
4.000	-	-	100	0.000	0.000	0.000
3.001	-	-	100	0.000	0.000	0.000
3.002	-	-	100	0.000	0.000	0.000
1.003	User	-	100	0.024	0.024	0.024
				Total	Total	Total
				0.054	0.054	0.054

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D, L (mm)	W (mm)
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S1.003	S	58.200	55.539	0.000	0	0
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Online Controls for Storm

Orifice Manhole: S2, DS/PN: S1.001, Volume (m³): 0.3

Diameter (m) 0.027 Discharge Coefficient 0.600 Invert Level (m) 59.000

Orifice Manhole: S5, DS/PN: S3.001, Volume (m³): 0.3

Diameter (m) 0.035 Discharge Coefficient 0.600 Invert Level (m) 59.000


Hydro-Brake® Optimum Manhole: S3, DS/PN: S1.003, Volume (m³): 1.5

Unit Reference	MD-SHE-0073-2000-0628-2000
Design Head (m)	0.628
Design Flow (l/s)	2.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	73
Invert Level (m)	55.950
Minimum Outlet Pipe Diameter (mm)	100
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	0.628	2.0	Kick-Flo®	0.413	1.7
Flush-Flo™	0.187	2.0	Mean Flow over Head Range	-	1.7

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	1.9	1.200	2.7	3.000	4.1	7.000	6.1
0.200	2.0	1.400	2.9	3.500	4.4	7.500	6.3
0.300	1.9	1.600	3.1	4.000	4.7	8.000	6.5
0.400	1.7	1.800	3.2	4.500	5.0	8.500	6.7
0.500	1.8	2.000	3.4	5.000	5.2	9.000	6.9
0.600	2.0	2.200	3.6	5.500	5.5	9.500	7.1
0.800	2.2	2.400	3.7	6.000	5.7		
1.000	2.5	2.600	3.8	6.500	5.9		

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Storage Structures for Storm

Cellular Storage Manhole: S2, DS/PN: S1.001

Invert Level (m) 59.000 Safety Factor 2.0  
 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.97  
 Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )
0.000	237.6	0.0	0.166	0.4	0.0
0.165	237.6	0.0			

Cellular Storage Manhole: S5, DS/PN: S3.001

Invert Level (m) 59.000 Safety Factor 2.0  
 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95  
 Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )
0.000	293.0	0.0	0.166	0.4	0.0
0.165	293.0	0.0			

Cellular Storage Manhole: S3, DS/PN: S1.003


Invert Level (m) 56.100 Safety Factor 2.0  
 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95  
 Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )
0.000	23.7	0.0	0.479	0.4	0.0
0.478	23.7	0.0			

Time Area Diagram for Green Roof at Pipe Number S1.000 (Storm)

Area (m<sup>3</sup>) 238 Evaporation (mm/day) 3  
 Depression Storage (mm) 5 Decay Coefficient 0.050

Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)
0	4	0.004325	16	20	0.001943	32	36	0.000873	48	52	0.000392
4	8	0.003541	20	24	0.001591	36	40	0.000715	52	56	0.000321
8	12	0.002899	24	28	0.001303	40	44	0.000585	56	60	0.000263
12	16	0.002374	28	32	0.001067	44	48	0.000479	60	64	0.000215

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Micro Drainage		Network 2017.1.2


Time Area Diagram for Green Roof at Pipe Number S1.000 (Storm)

Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)
64	68	0.000176	80	84	0.000079	96	100	0.000036	112	116	0.000016
68	72	0.000144	84	88	0.000065	100	104	0.000029	116	120	0.000013
72	76	0.000118	88	92	0.000053	104	108	0.000024			
76	80	0.000097	92	96	0.000043	108	112	0.000020			

Time Area Diagram for Green Roof at Pipe Number S4.000 (Storm)

Area (m<sup>3</sup>) 293 Evaporation (mm/day) 3  
Depression Storage (mm) 5 Decay Coefficient 0.050

Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)
0	4	0.005324	32	36	0.001075	64	68	0.000217	96	100	0.000044
4	8	0.004359	36	40	0.000880	68	72	0.000178	100	104	0.000036
8	12	0.003569	40	44	0.000721	72	76	0.000145	104	108	0.000029
12	16	0.002922	44	48	0.000590	76	80	0.000119	108	112	0.000024
16	20	0.002392	48	52	0.000483	80	84	0.000098	112	116	0.000020
20	24	0.001959	52	56	0.000395	84	88	0.000080	116	120	0.000016
24	28	0.001604	56	60	0.000324	88	92	0.000065			
28	32	0.001313	60	64	0.000265	92	96	0.000054			

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2 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000  
Hot Start (mins) 0 MADD Factor \* 10m<sup>3</sup>/ha Storage 2.000  
Hot Start Level (mm) 0 Inlet Coefficient 0.800  
Manhole Headloss Coeff (Global) 0.500 Flow per Person per Day (l/per/day) 0.000  
Foul Sewage per hectare (l/s) 0.000

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 2  
Number of Online Controls 3 Number of Storage Structures 3 Number of Real Time Controls 0


Synthetic Rainfall Details

Rainfall Model FEH  
FEH Rainfall Version 2013  
Site Location GB 540233 168902 TQ 40233 68902  
Data Type Point  
Cv (Summer) 1.000  
Cv (Winter) 1.000

Margin for Flood Risk Warning (mm) 300.0 DVD Status OFF  
Analysis Timestep Fine Inertia Status OFF  
DTS Status ON

Profile(s) Summer and Winter  
Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
Return Period(s) (years) 2, 30, 100  
Climate Change (%) 0, 0, 40


PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S1.000	S1	120 Summer	2	+0%					59.081
S2.000	S2	15 Summer	2	+0%					59.074
S1.001	S2	1440 Summer	2	+0%					59.033
S1.002	S4	1440 Summer	2	+0%	100/15 Summer				56.208
S3.000	S4	15 Summer	2	+0%					59.079
S4.000	S5	120 Summer	2	+0%					59.084
S3.001	S5	960 Summer	2	+0%					59.037
S3.002	S8	960 Summer	2	+0%	100/15 Summer				56.211
S1.003	S3	15 Summer	2	+0%	2/15 Summer				56.123

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2 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Surcharged		Flooded		Pipe		Level Exceeded
		Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status	
S1.000	S1	-0.119	0.000	0.10		1.4	FLOOD RISK	
S2.000	S2	-0.126	0.000	0.09		2.4	FLOOD RISK	
S1.001	S2	-0.117	0.000	0.01		0.2	FLOOD RISK	
S1.002	S4	-0.142	0.000	0.01		0.2	OK	
S3.000	S4	-0.121	0.000	0.14		4.0	FLOOD RISK	
S4.000	S5	-0.116	0.000	0.12		1.7	FLOOD RISK	
S3.001	S5	-0.113	0.000	0.01		0.3	FLOOD RISK	
S3.002	S8	-0.139	0.000	0.02		0.3	OK	
S1.003	S3	0.023	0.000	0.09		2.0	SURCHARGED	



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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for Storm

Simulation Criteria

Areal Reduction Factor 1.000    Additional Flow - % of Total Flow 0.000  
Hot Start (mins) 0    MADD Factor \* 10m<sup>3</sup>/ha Storage 2.000  
Hot Start Level (mm) 0    Inlet Coefficient 0.800  
Manhole Headloss Coeff (Global) 0.500    Flow per Person per Day (l/per/day) 0.000  
Foul Sewage per hectare (l/s) 0.000

Number of Input Hydrographs 0    Number of Offline Controls 0    Number of Time/Area Diagrams 2  
Number of Online Controls 3    Number of Storage Structures 3    Number of Real Time Controls 0


Synthetic Rainfall Details

Rainfall Model FEH  
FEH Rainfall Version 2013  
Site Location GB 540233 168902 TQ 40233 68902  
Data Type Point  
Cv (Summer) 1.000  
Cv (Winter) 1.000

Margin for Flood Risk Warning (mm) 300.0    DVD Status OFF  
Analysis Timestep Fine Inertia Status OFF  
DTS Status ON

Profile(s) Summer and Winter  
Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
Return Period(s) (years) 2, 30, 100  
Climate Change (%) 0, 0, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S1.000	S1	30	Summer	30	+0%				59.101
S2.000	S2	15	Summer	30	+0%				59.089
S1.001	S2	480	Summer	30	+0%				59.066
S1.002	S4	30	Summer	30	+0%	100/15	Summer		56.247
S3.000	S4	15	Summer	30	+0%				59.098
S4.000	S5	30	Summer	30	+0%				59.107
S3.001	S5	480	Summer	30	+0%				59.072
S3.002	S8	30	Summer	30	+0%	100/15	Summer		56.247
S1.003	S3	30	Summer	30	+0%	2/15	Summer		56.247

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Micro Drainage		Network 2017.1.2

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for Storm

PN	US/MH Name	Surcharged		Flooded		Pipe		Level Exceeded
		Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status	
S1.000	S1	-0.099	0.000	0.25		3.6	FLOOD RISK	
S2.000	S2	-0.111	0.000	0.21		6.0	FLOOD RISK	
S1.001	S2	-0.084	0.000	0.01		0.3	FLOOD RISK	
S1.002	S4	-0.103	0.000	0.01		0.2	OK	
S3.000	S4	-0.102	0.000	0.35		9.8	FLOOD RISK	
S4.000	S5	-0.093	0.000	0.31		4.4	FLOOD RISK	
S3.001	S5	-0.078	0.000	0.02		0.6	FLOOD RISK	
S3.002	S8	-0.103	0.000	0.02		0.3	OK	
S1.003	S3	0.147	0.000	0.09		2.0	SURCHARGED	

6 Coppergate Mews  
 Brighton Road  
 Surbiton KT6 5NE

Designed by Agnes.Gannon  
 Checked by



Date 27/11/2023 19:12  
 File 20108-SWD-MH-01-C01.MDX

Micro Drainage Network 2017.1.2

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
 for Storm

Simulation Criteria

Areal Reduction Factor 1.000    Additional Flow - % of Total Flow 0.000  
 Hot Start (mins) 0    MADD Factor \* 10m³/ha Storage 2.000  
 Hot Start Level (mm) 0    Inlet Coefficient 0.800  
 Manhole Headloss Coeff (Global) 0.500    Flow per Person per Day (l/per/day) 0.000  
 Foul Sewage per hectare (l/s) 0.000

Number of Input Hydrographs 0    Number of Offline Controls 0    Number of Time/Area Diagrams 2  
 Number of Online Controls 3    Number of Storage Structures 3    Number of Real Time Controls 0


Synthetic Rainfall Details

Rainfall Model FEH  
 FEH Rainfall Version 2013  
 Site Location GB 540233 168902 TQ 40233 68902  
 Data Type Point  
 Cv (Summer) 1.000  
 Cv (Winter) 1.000

Margin for Flood Risk Warning (mm) 300.0    DVD Status OFF  
 Analysis Timestep Fine Inertia Status OFF  
 DTS Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 2, 30, 100  
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S1.000	S1 960	Summer	100	+40%					59.130
S2.000	S2 960	Summer	100	+40%					59.130
S1.001	S2 960	Summer	100	+40%					59.130
S1.002	S4 120	Summer	100	+40%	100/15	Summer			56.518
S3.000	S4 480	Summer	100	+40%					59.139
S4.000	S5 480	Summer	100	+40%					59.140
S3.001	S5 480	Summer	100	+40%					59.139
S3.002	S8 120	Summer	100	+40%	100/15	Summer			56.518
S1.003	S3 120	Summer	100	+40%	2/15	Summer			56.517

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Micro Drainage		Network 2017.1.2

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for Storm

PN	US/MH Name	Surcharged		Flooded		Pipe Flow (l/s)	Status	Level Exceeded
		Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)			
S1.000	S1	-0.070	0.000	0.14		1.9	FLOOD RISK	
S2.000	S2	-0.070	0.000	0.03		1.0	FLOOD RISK	
S1.001	S2	-0.020	0.000	0.02		0.5	FLOOD RISK	
S1.002	S4	0.168	0.000	0.03		0.5	SURCHARGED	
S3.000	S4	-0.061	0.000	0.10		2.8	FLOOD RISK	
S4.000	S5	-0.060	0.000	0.27		3.7	FLOOD RISK	
S3.001	S5	-0.011	0.000	0.03		0.9	FLOOD RISK	
S3.002	S8	0.168	0.000	0.04		0.8	SURCHARGED	
S1.003	S3	0.417	0.000	0.09		2.0	SURCHARGED	



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