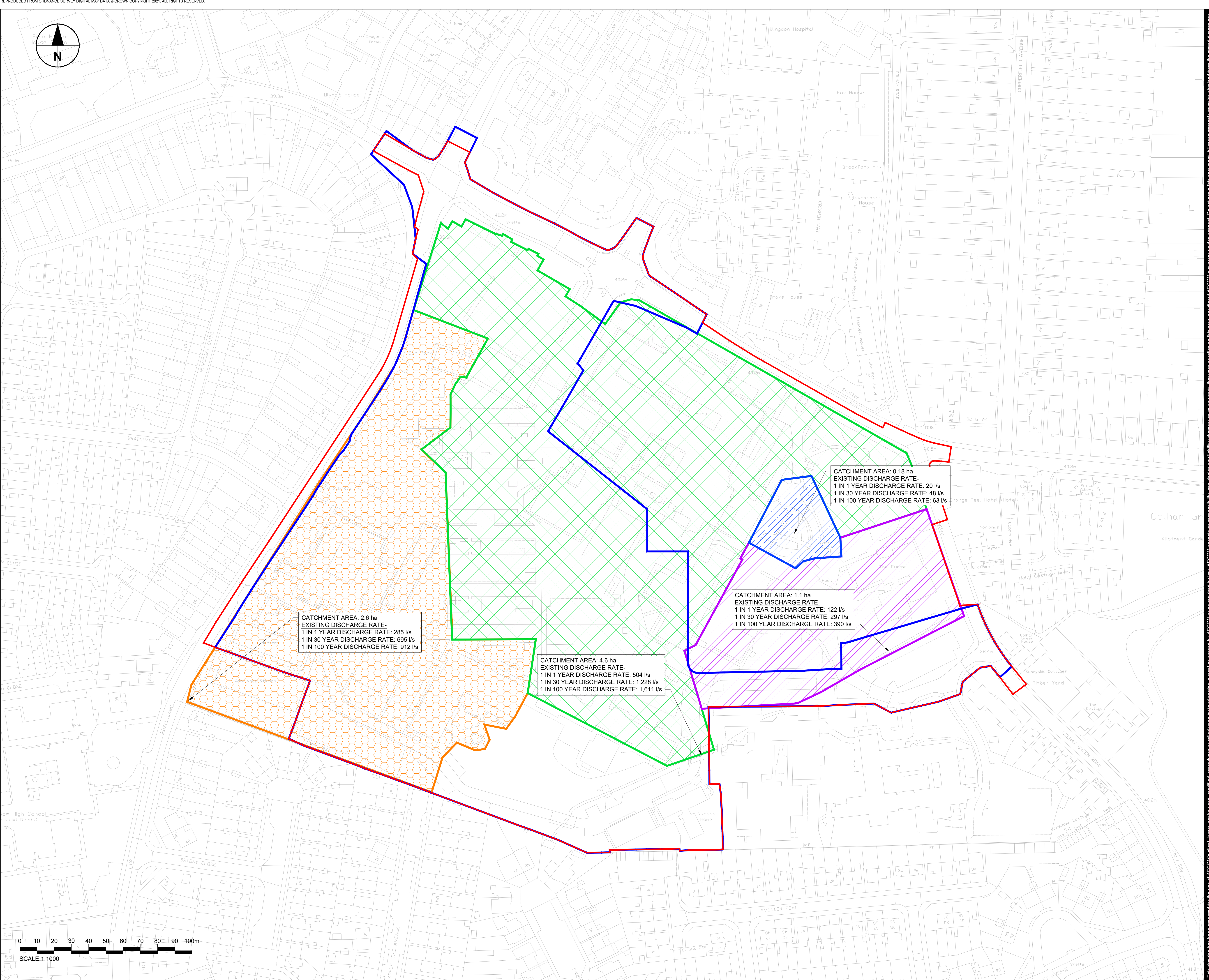


Appendix C – Existing Catchment Plan



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PROJECT

HILLINGDON
HOSPITAL
REDEVELOPMENT

CLIENT



CONSULTANT

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NOTES

- DRAWN AT 1:1000 SCALE AT A1.
- DO NOT SCALE FROM THIS DRAWING. ONLY STATED DIMENSIONS ARE TO BE USED.
- THIS DRAWING PROVIDES A HIGH-LEVEL ESTIMATE FOR THE EXISTING DRAINAGE CATCHMENT ON THE SITE BASED ON EXISTING SURVEY INFORMATION.
- EXISTING BROWNFIELD RUNOFF RATE CALCULATED USING THE RATIONAL METHOD.
- EXISTING CATCHMENT 1 ASSUMED TO DISCHARGE INTO THAMES WATER SEWER ON ROYAL LANE.
- EXISTING CATCHMENT 2 AND 3 ASSUMED TO DISCHARGE INTO THE EXISTING WATERCOURSE SOUTH OF THE SITE.
- EXISTING CATCHMENT 4 ASSUMED TO DISCHARGE INTO EXISTING SOAKAWAY.

KEY

- APPLICATION BOUNDARY
- DETAILED PLANNING BOUNDARY
- CATCHMENT 1
- CATCHMENT 2
- CATCHMENT 3
- CATCHMENT 4

ISSUE/REVISION

P02	22/04/22	UPDATED BOUNDARY
P01	08/04/22	FIRST ISSUE
I/R	DATE	DESCRIPTION

SUITABILITY STATUS

S2 - FOR INFORMATION

PROJECT NUMBER

60642181

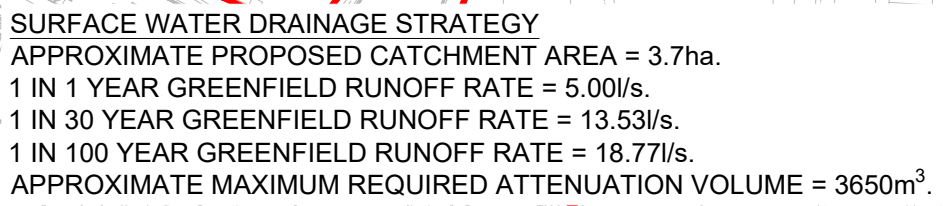
SHEET TITLE

EXISTING CATCHMENT PLAN

SHEET NUMBER

THHR_01-ACM-ZZ-XX-DR-C-770100

Appendix D – Phase 2 Indicative Drainage Strategy Plan



PHASE 2 CATCHMENT PROPOSED SURFACE
WATER DISCHARGE POINT INTO EXISTING
WATERCOURSE

POTENTIAL SUDs SURFACE WATER
ATTENUATION LOCATION

- THHR_01-ACM-WS-XX-DR-C-772200

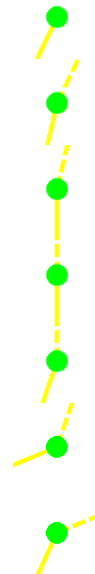
Appendix E – Microdrainage Results

AECOM		Page 2
Midpoint Alencon Link Basingstoke, RG21 7PP		
Date 08/04/2022 10:18 File HILLINGDON NETWORK A OP...	Designed by Shuaib.Kasenally Checked by	
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Manhole Schedules for Storm

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam., L*W (mm)	PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
S1	40.187	1.650	Open Manhole	1500	S1.000	38.537	450				
S2	38.738	1.650	Open Manhole	1500	S1.001	37.088	450	S1.000	37.088	450	
S3	37.143	1.864	Open Manhole	1500	S1.002	35.279	450	S1.001	35.279	450	
S4	37.012	2.400	Open Manhole	1500	S1.003	34.612	300	S1.002	34.612	450	
S5	37.007	2.569	Open Manhole	1800	S1.004	34.438	450	S1.003	34.588	300	
S6	36.782	2.480	Open Manhole	1500	S1.005	34.302	450	S1.004	34.302	450	
S7	36.444	2.222	Open Manhole	1500	S1.006	34.222	450	S1.005	34.222	450	
S8	36.007	1.437	Open Manhole	1800	S2.000	34.570	600				
S9	36.099	2.482	Open Manhole	1800	S1.007	33.617	600	S1.006	34.162	450	395
								S2.000	33.617	600	
S10	36.095	2.554	Open Manhole	1800	S1.008	33.541	600	S1.007	33.541	600	
S11	36.489	2.981	Open Manhole	1800	S1.009	33.508	600	S1.008	33.508	600	
S12	36.053	2.545	Open Manhole	1325	S1.010	33.508	300	S1.009	33.508	600	
S13	36.533	3.025	Open Manhole	1800	S1.011	33.508	300	S1.010	33.508	300	
S14	36.852	3.397	Open Manhole	1500	S1.012	33.455	300	S1.011	33.455	300	
S	36.581	3.381	Open Manhole	0		OUTFALL		S1.012	33.200	300	

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S1	506816.132	181987.851	506816.132	181987.851	Required	
S2	506791.102	181935.824	506791.102	181935.824	Required	
S3	506782.038	181896.788	506782.038	181896.788	Required	
S4	506782.003	181798.887	506782.003	181798.887	Required	
S5	506782.000	181792.796	506782.000	181792.796	Required	
S6	506763.709	181739.942	506763.709	181739.942	Required	
S7	506733.373	181727.320	506733.373	181727.320	Required	



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Midpoint Alencon Link Basingstoke, RG21 7PP																						
Date 08/04/2022 10:18 File HILLINGDON NETWORK A OP...	Designed by Shuaib.Kasenally Checked by																					
Innovyze Network 2019.1																						
Simulation Criteria for Storm <table><tr><td>Rainfall Model</td><td>FSR</td><td>Profile Type</td><td>Summer</td></tr><tr><td>Return Period (years)</td><td>100</td><td>Cv (Summer)</td><td>0.750</td></tr><tr><td>Region</td><td>England and Wales</td><td>Cv (Winter)</td><td>0.840</td></tr><tr><td>M5-60 (mm)</td><td>20.000</td><td>Storm Duration (mins)</td><td>30</td></tr><tr><td>Ratio R</td><td>0.400</td><td></td><td></td></tr></table>			Rainfall Model	FSR	Profile Type	Summer	Return Period (years)	100	Cv (Summer)	0.750	Region	England and Wales	Cv (Winter)	0.840	M5-60 (mm)	20.000	Storm Duration (mins)	30	Ratio R	0.400		
Rainfall Model	FSR	Profile Type	Summer																			
Return Period (years)	100	Cv (Summer)	0.750																			
Region	England and Wales	Cv (Winter)	0.840																			
M5-60 (mm)	20.000	Storm Duration (mins)	30																			
Ratio R	0.400																					
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AECOM		Page 5
Midpoint Alencon Link Basingstoke, RG21 7PP		
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Innovyze	Network 2019.1	

Online Controls for Storm

Hydro-Brake® Optimum Manhole: S5, DS/PN: S1.004, Volume (m³): 6.9

Unit Reference	MD-SHE-0138-1000-1500-1000
Design Head (m)	1.500
Design Flow (l/s)	10.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	138
Invert Level (m)	34.438
Minimum Outlet Pipe Diameter (mm)	225
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.500	10.0
Flush-Flo™	0.441	10.0
Kick-Flo®	0.933	8.0
Mean Flow over Head Range	-	8.7

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	5.0	1.200	9.0	3.000	13.9	7.000	20.8
0.200	9.0	1.400	9.7	3.500	14.9	7.500	21.5
0.300	9.7	1.600	10.3	4.000	15.9	8.000	22.2
0.400	10.0	1.800	10.9	4.500	16.8	8.500	22.8
0.500	10.0	2.000	11.4	5.000	17.7	9.000	23.5
0.600	9.8	2.200	12.0	5.500	18.5	9.500	24.1
0.800	9.1	2.400	12.5	6.000	19.3		
1.000	8.3	2.600	13.0	6.500	20.1		

Complex Manhole: S13, DS/PN: S1.011, Volume (m³): 8.9

Hydro-Brake® Optimum

Unit Reference	MD-SHE-0071-3200-2200-3200
Design Head (m)	2.200
Design Flow (l/s)	3.2
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	71
Invert Level (m)	33.508