

Notes

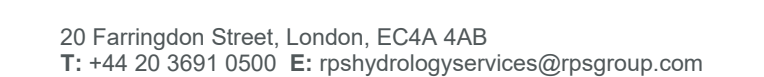
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1. REFER TO DRAWING NUMBER
21786-RPS-GEN-ZZ-M2-H-0501 FOR THE CONCEPTUAL
DRAINAGE STRATEGY.

- IB MAIN CATCHMENT (TOTAL 18.668 ha)
- IB 1B CATCHMENT (TOTAL 1.700 ha)
- IB 3/4A CATCHMENT (TOTAL 1.022 ha)
- IB 5A CATCHMENT (TOTAL 1.103 ha)
- UA 6A CATCHMENT (TOTAL 1.328 ha)
- IB 7/7B CATCHMENT (TOTAL 0.590 ha)
- IB 8/8B CATCHMENT (TOTAL ha)
- IB 10 CATCHMENT (TOTAL 0.663 ha)
- IB 11 CATCHMENT (TOTAL 0.240 ha)
- FALL DIRECTION (TAKEN FROM CONTOURS)
- PROPOSED INFILTRATION BASIN
- PROPOSED ATTENUATION BASIN
- INDICATIVE SWALE
- INDICATIVE SURFACE WATER SEWER ROUTE

P01	FIRST ISSUE	RM	CP	25.0
by	Description	By	Ckd	Date

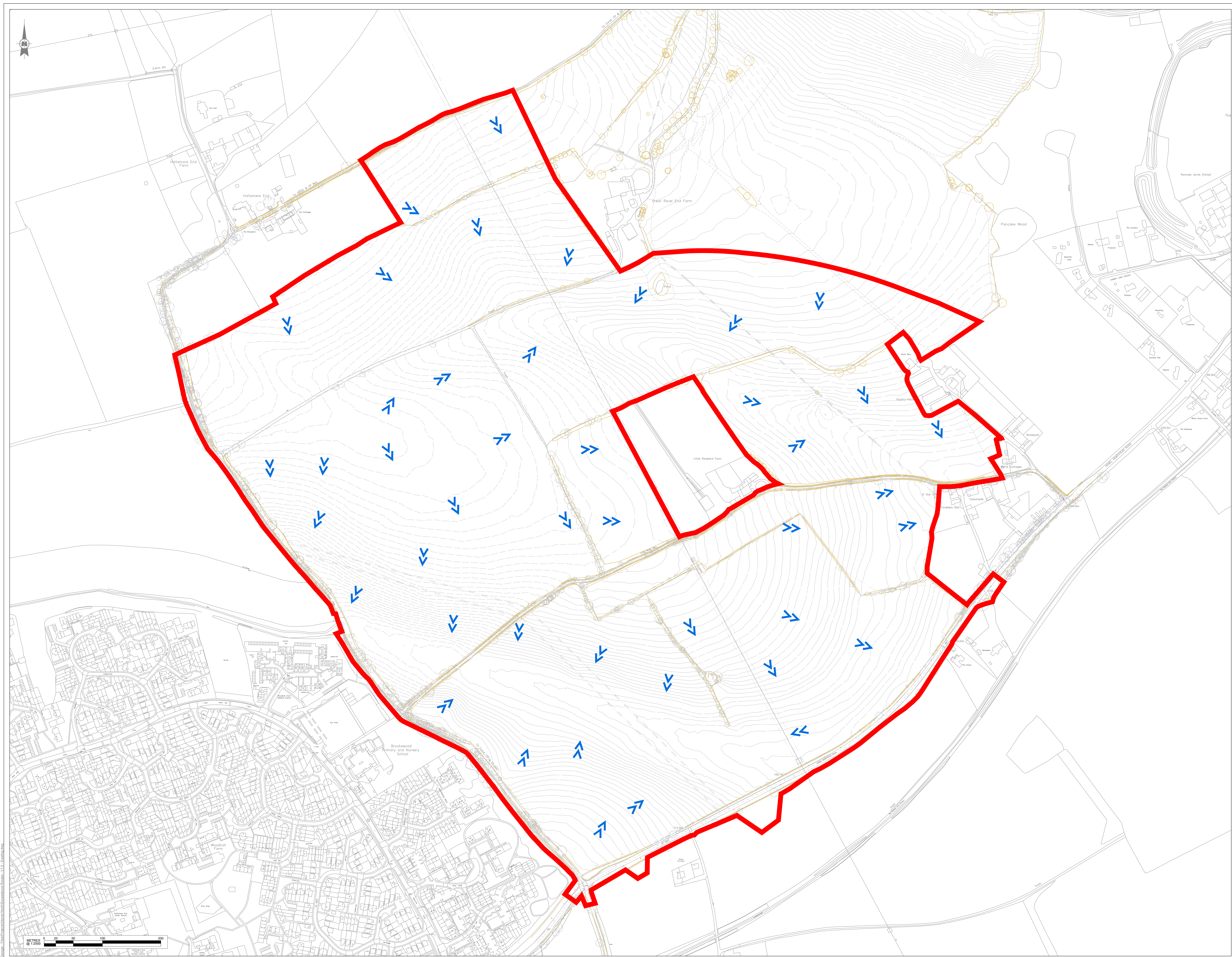


Title CONCEPTUAL CATCHMENT
AREA PLAN

Status	Scale	Date Created
DRAFT	1:2,000@A0	23.06.25
Task Team Manager	Information Author	Task Information Manager
CP	RM	CP
Document Number		
21786-RPS-GEN-ZZ-DR-H-0503		

RPS Project Number
794-ENV-HYD-21786
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KEY

- SITE BOUNDARY
- OVERLAND FLOW DIRECTION



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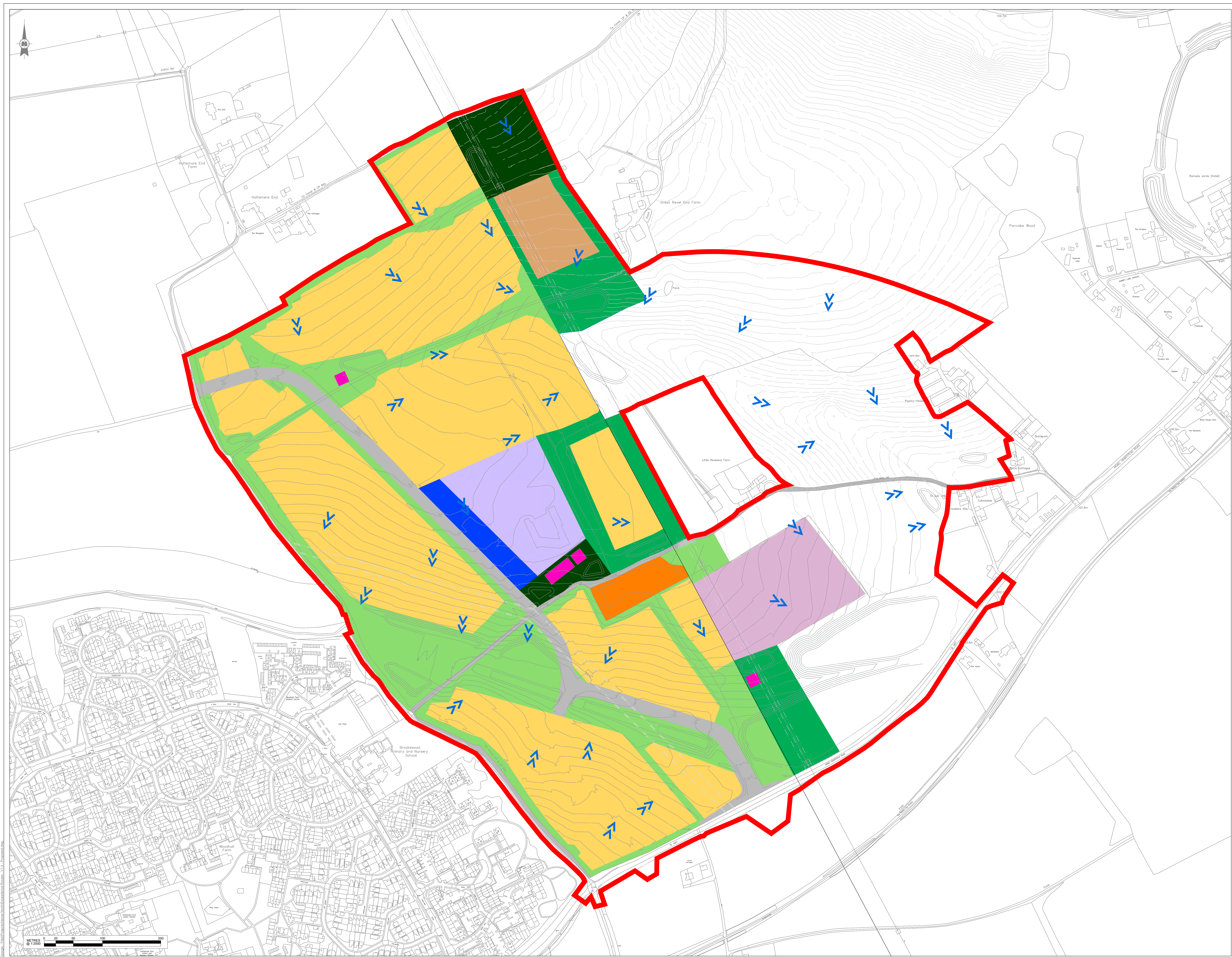
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Client **BLOOR HOMES / PIGEON**

Project **HEMEL NORTH**

Title **EXISTING OVERLAND FLOW DIRECTION ROUTES**

Status	Scale	Date Created
Preliminary	1:2,000@A0	01.12.25
Task Team Manager	Information Manager	Task Information Manager
CP	GT	CP
Document Number	21786-RPS-HDG-XX-DR-H-0511	
RPS Project Number	794-ENV-HYD-21786	
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KEY

- SITE BOUNDARY
- OVERLAND FLOW DIRECTION



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Client **BLOOR HOMES / PIGEON**

Project **HEMEL NORTH**

Title **PROPOSED OVERLAND FLOW DIRECTION MAP**

Status	Scale	Date Created
Preliminary	1:2,000@A0	01.12.25
Task Team Manager	Information Manager	Task Information Manager
CP	GT	CP

Document Number
21786-RPS-GEN-XX-DR-H-0512

RPS Project Number
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Revision
P03

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Appendix L – Calculations

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	9.000
CV	1.000	Preferred Cover Depth (m)	1.000
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1		5.00	100.000	1200	1010.000	1000.000	1.200
2-SOAKAWAY	1.000	5.00	100.000	1200	1020.000	1000.000	1.300

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Detailed	Additional Storage (m³/ha)	0.0
Summer CV	1.000	Skip Steady State	x	Check Discharge Rate(s)	x
Winter CV	1.000	Drain Down Time (mins)	2880	Check Discharge Volume	x

Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
100	40	0	0

Node 2-SOAKAWAY Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.05940	Safety Factor	2.0	Invert Level (m)	98.700
Side Inf Coefficient (m/hr)	0.05940	Porosity	1.00	Time to half empty (mins)	1019

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	687.1	687.1	1.300	980.7	980.7

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	1	472	99.677	0.877	0.1	0.9918	0.0000	SURCHARGED
480 minute winter	2-SOAKAWAY	472	99.677	0.977	83.5	780.1439	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
480 minute winter	1	1.001	2-SOAKAWAY	-0.1	-0.006	-0.003	0.3977
480 minute winter	2-SOAKAWAY	Infiltration		7.5			