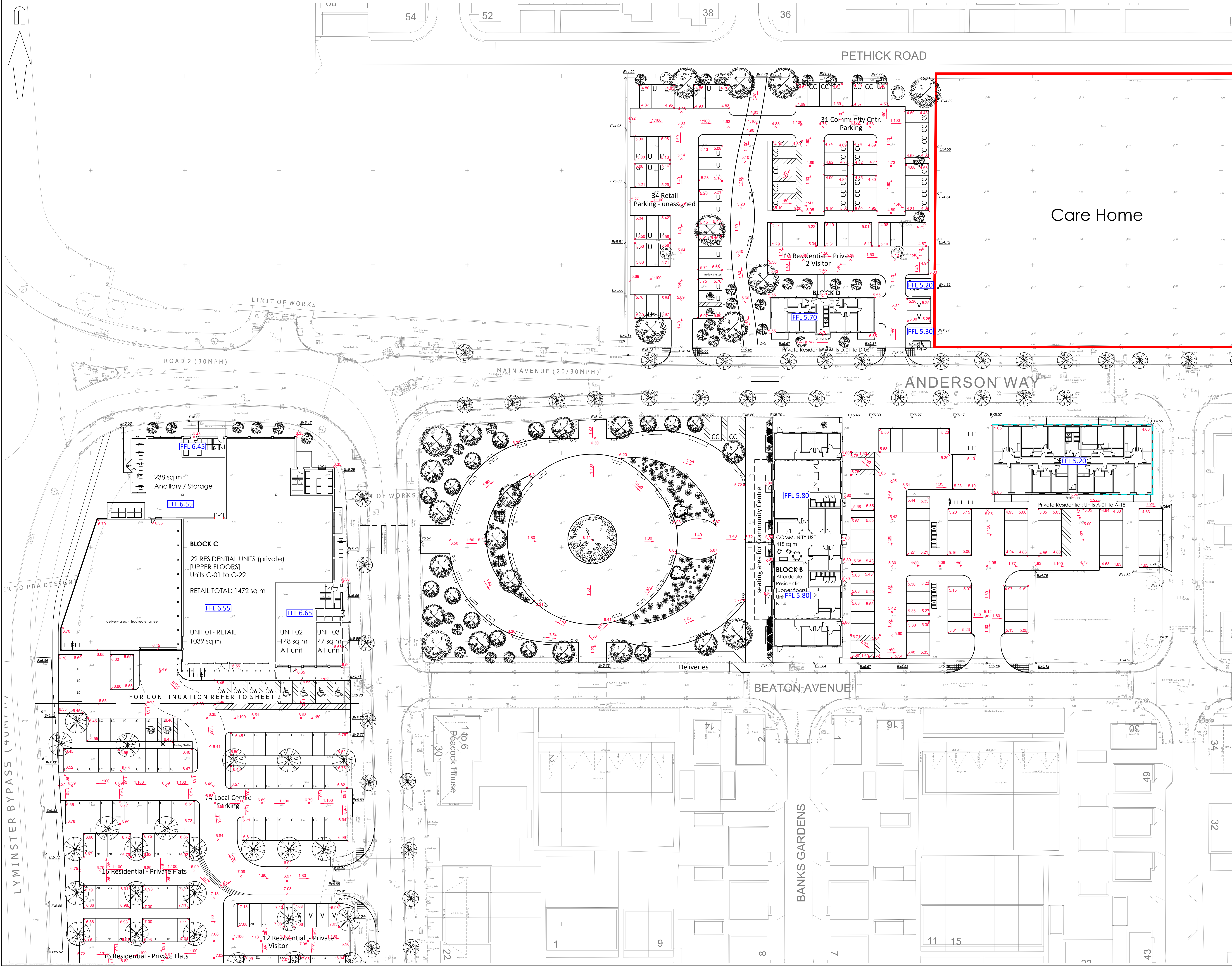


APPENDIX I: Local Centre Levels and Engineering Plans



A0 ORIGINAL

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LEVELS KEY:

- 4.66' x PROPOSED SPOT LEVEL
- EX4.66' x EXISTING SPOT LEVEL
- 1:100' x PROPOSED GRADIENT
- FFL 4.75' x PROPOSED FINISHED FLOOR LEVEL
- CONSTRUCTION LINES
- EXPOSED SUB STRUCTURE

NOTES:

- This drawing is not to be scaled.
- This drawing is to be read in conjunction with all other relevant engineering and landscaping drawings. Any discrepancies are to be reported to the Engineer immediately for clarification.

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.

FOR INFORMATION

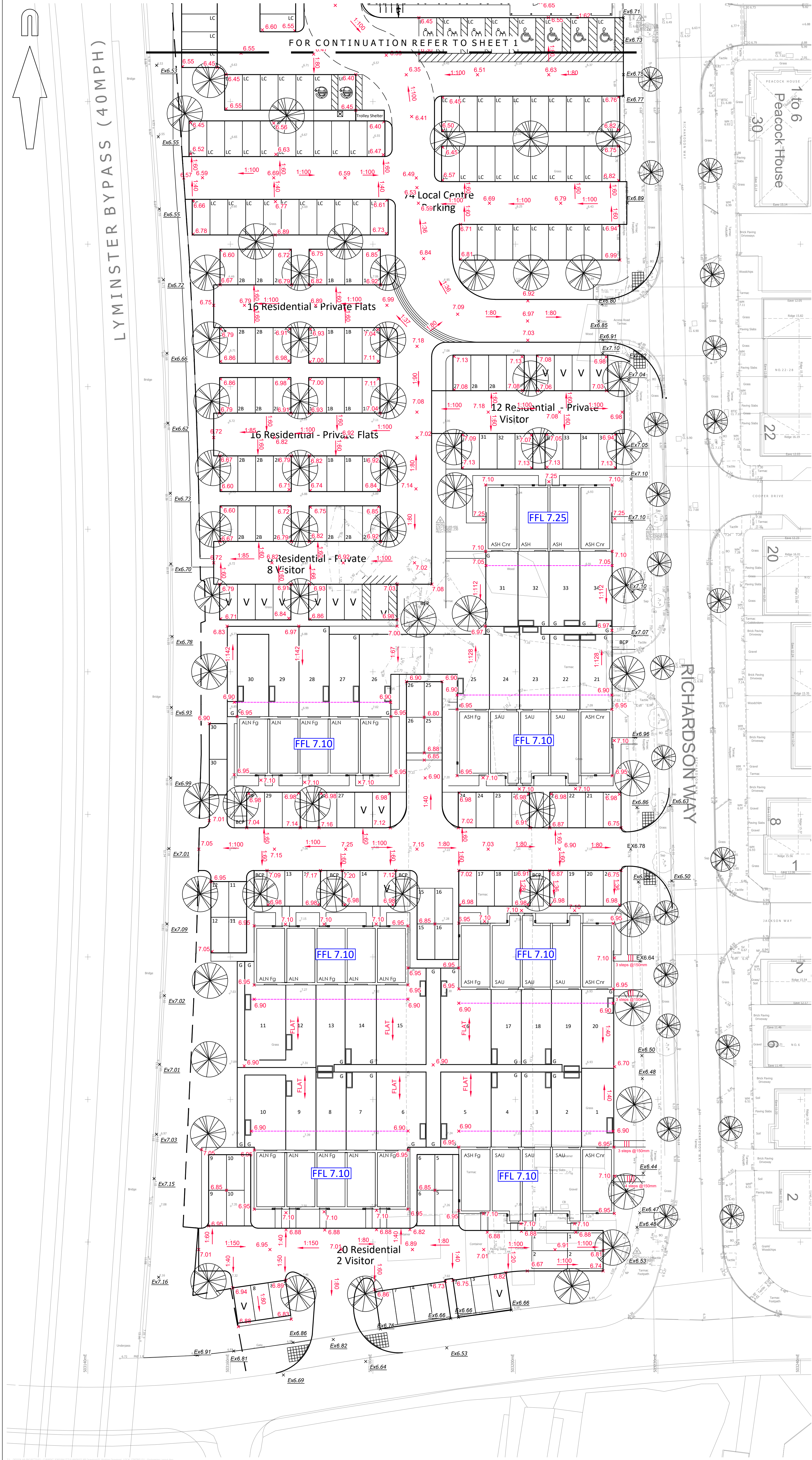
NOT FOR CONSTRUCTION

P1	Initial Issue, (TC)	SF	01/12/2025
rev.	amendment	checked	date

mb
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client	PERSIMMON HOMES THAMES VALLEY				
project	LOCAL CENTRE LITTLEHAMPTON				
scale	1:250	drawn by	OP	checked by	SF
date	NOVEMBER 2025	cad file	151.DWG		
title	ENGINEERING LAYOUT (SHEET 1)				
Mayer Brown Limited jobcode		suitability		revision	P1
drawing number	PHLITTLECC.2/151				



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LEVELS KEY:

- 4.66 × PROPOSED SPOT LEVEL
- EX4.66 × EXISTING SPOT LEVEL
- 1:100 PROPOSED GRADIENT
- FFL 4.75 PROPOSED FINISHED FLOOR LEVEL
- CONSTRUCTION LINES
- EXPOSED SUB STRUCTURE

NOTES:

- This drawing is not to be scaled.
- This drawing is to be read in conjunction with all other relevant engineering and landscaping drawings. Any discrepancies are to be reported to the Engineer immediately for clarification.

KEY TO HEALTH AND SAFETY SYMBOLS

- INDICATES A RESIDUAL RISK REQUIRING A COMPULSORY ACTION.
- ① INDICATES A RESIDUAL RISK FOR INFORMATION.
- ⊘ INDICATES A RESIDUAL RISK REQUIRING A PROHIBITIVE ACTION.
- ⚠ INDICATES A RESIDUAL RISK AS A WARNING.

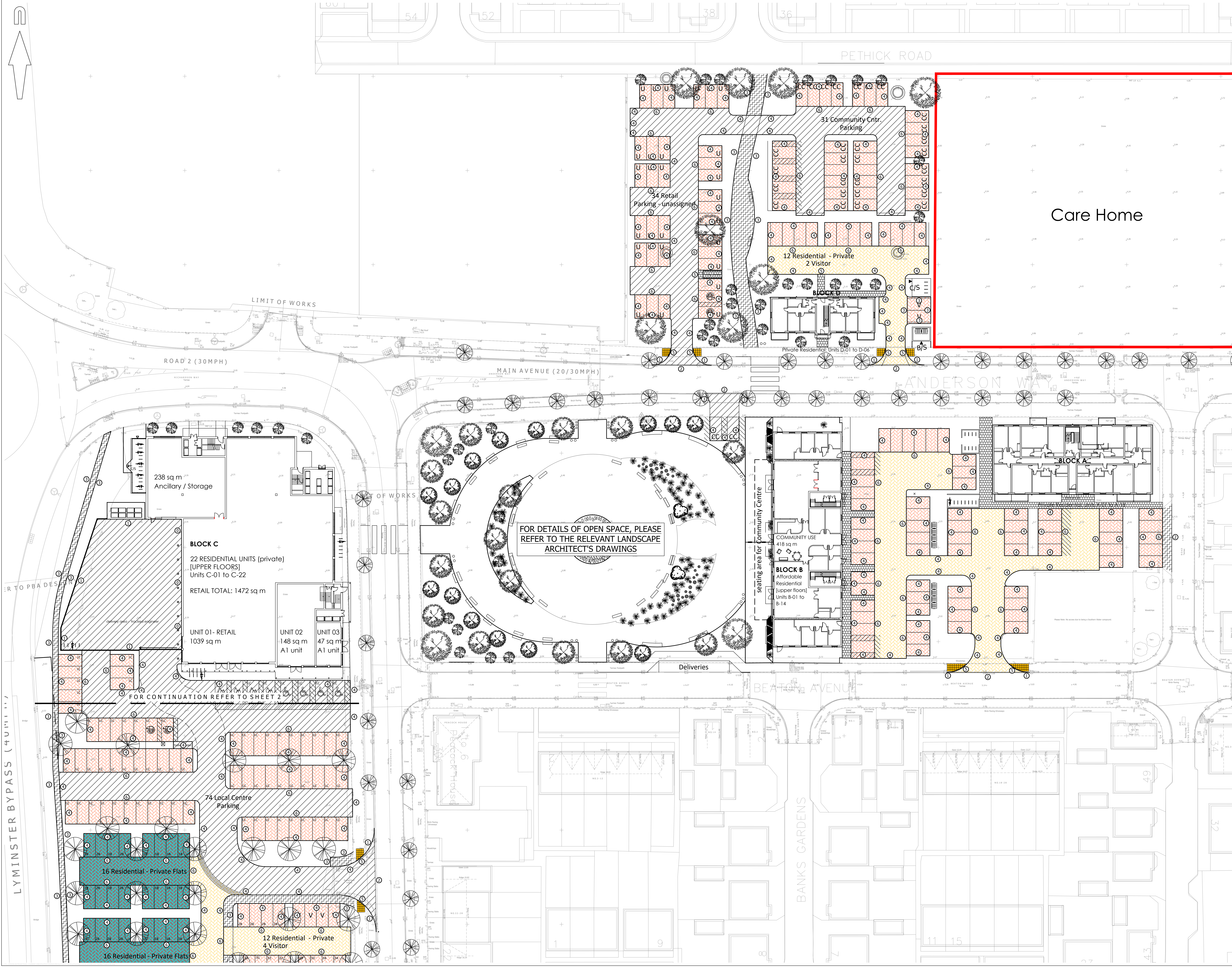
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rev.	amendment	checked	date

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client		
PERSIMMON HOMES THAMES VALLEY		
project		
LOCAL CENTRE LITTLEHAMPTON		
scale	drawn by	checked by
1:250	OP	SF
date	cad file	
NOVEMBER 2025	151.DWG	
title		
ENGINEERING LAYOUT (SHEET 2)		
Mayer Brown Limited jobcode	suitability	revision
	-	P1
drawing number		
PHLITTLECC.2/152		



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KEY

EXISTING KERB LINE
KERB/EDGING LINE
DROPPED KERB
BUFF COLOURED TACTILE PAVING
BITUMEN MACADAM CARRIAGEWAY SURFACING
BLOCK PAVED SHARED / PRIVATE DRIVE SURFACING LAID IN HERRINGBONE PATTERN
BLOCK PAVED CARRIAGEWAY SURFACING LAID IN HERRINGBONE PATTERN
PERMEABLE BLOCK PAVED SHARED / PRIVATE DRIVE SURFACING LAID IN HERRINGBONE PATTERN
BITUMEN MACADAM FOOTWAY CONSTRUCTION
SLAB PRIVATE FOOTWAY CONSTRUCTION
RED LINE BOUNDARY

KERB TYPES

① TYPE 0 - NO KERB
② TYPE 1 - HB2 - 125mm UPSTAND
③ TYPE 2 - BN - 25mm UPSTAND
④ TYPE 3 - EF - FLUSH
⑤ TYPE 4 - HB2 - 100mm UPSTAND
⑥ TYPE 5 - BN - 0-6mm FLUSH
⑦ TYPE 6 - CS2 - FLUSH

NOTES:

1. This drawing is not to be scaled.
2. Drawing based on SHW Architects' "Site Layout" drawing, received on 27/10/2025.
3. This drawing is to be read in conjunction with all other relevant engineering and landscaping drawings. Any discrepancies are to be reported to the Engineer immediately for clarification.

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.

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P1	Initial Issue, (TC)	SF	02/12/2025
rev.	amendment	checked	date

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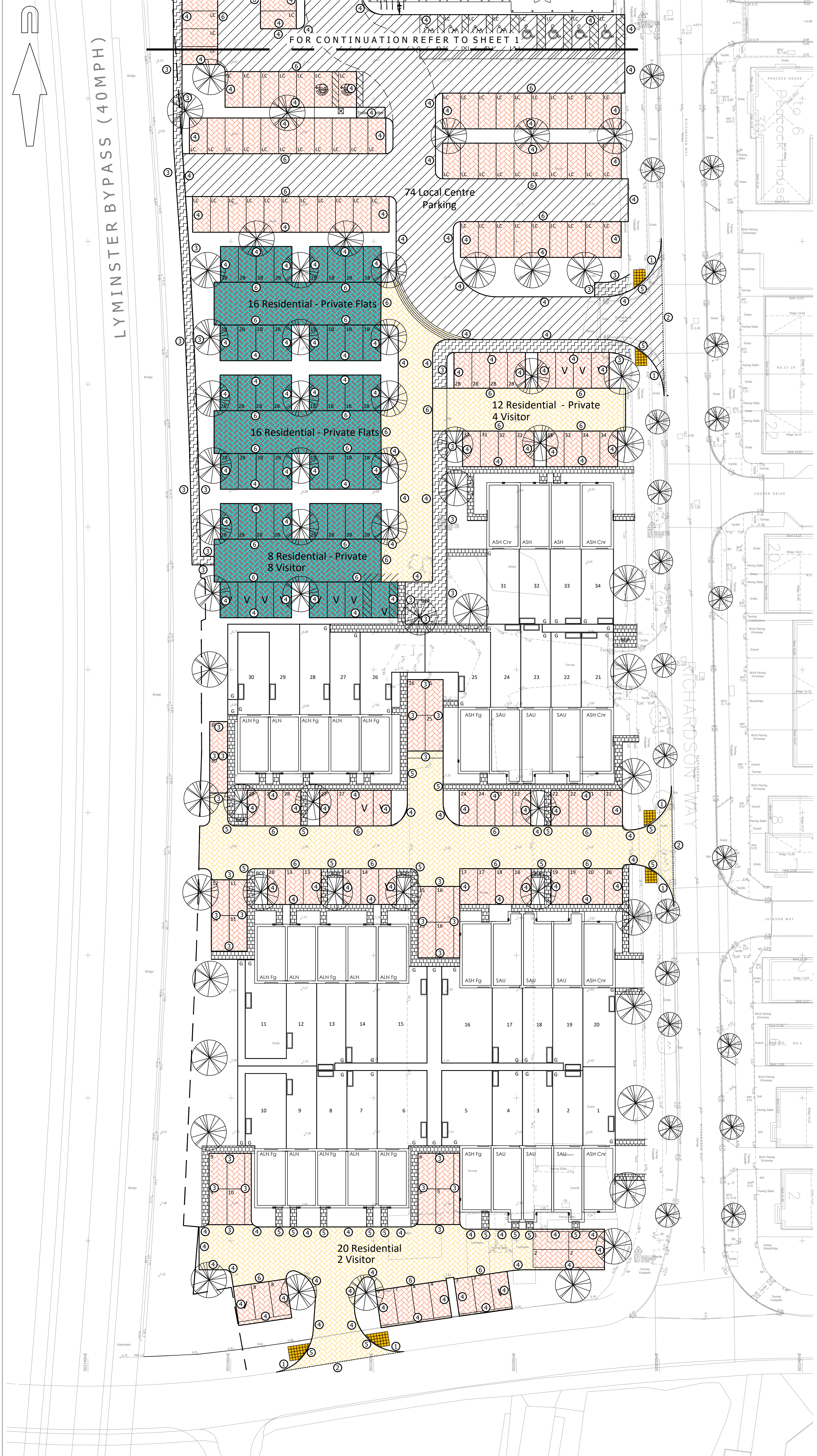
client
PERSIMMON HOMES THAMES VALLEY

project
**LOCAL CENTRE
LITTLEHAMPTON**

scale 1:250	drawn by TC	checked by SF
date DECEMBER 2025	cad file 131.DWG	
title SURFACE TREATMENTS (SHEET 1)		

Mayer Brown Limited jobcode	suitability	revision
		P1

drawing number
PHLITTLECC.2/131



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A1 ORIGINAL

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KEY

- EXISTING KERB LINE
- KERB/EDGING LINE
- DROPPED KERB
- BUFF COLOURED TACTILE PAVING
- BITUMEN MACADAM CARRIAGEWAY SURFACING
- BLOCK PAVED SHARED / PRIVATE DRIVE SURFACING LAID IN HERRINGBONE PATTERN
- BLOCK PAVED CARRIAGEWAY SURFACING LAID IN HERRINGBONE PATTERN
- PERMEABLE BLOCK PAVED SHARED / PRIVATE DRIVE SURFACING LAID IN HERRINGBONE PATTERN
- BITUMEN MACADAM FOOTWAY CONSTRUCTION
- SLAB PRIVATE FOOTWAY CONSTRUCTION
- SITE BOUNDARY

KERB TYPES

- TYPE 0 - NO KERB
- TYPE 1 - HB2 - 125mm UPSTAND
- TYPE 2 - BN - 25mm UPSTAND
- TYPE 3 - EF - FLUSH
- TYPE 4 - HB2 - 100mm UPSTAND
- TYPE 5 - BN - 0-6mm FLUSH
- TYPE 6 - CS2 - FLUSH

NOTES:

- This drawing is not to be scaled.
- Drawing based on SHW Architect's "Site Layout" drawing, received on 27/10/2025.
- This drawing is to be read in conjunction with all other relevant engineering and landscaping drawings. Any discrepancies are to be reported to the Engineer immediately for clarification.

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.

FOR INFORMATION
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P1	Initial Issue. (TC)	SF	02/12/2025
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rev.	amendment	checked	date
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client
PERSIMMON HOMES THAMES VALLEY

project
**LOCAL CENTRE
LITTLEHAMPTON**

scale 1:250	drawn by TC	checked by SF
-----------------------	-----------------------	-------------------------

date DECEMBER 2025	cad file 132.DWG
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title
SURFACE TREATMENTS (SHEET 2)

Mayer Brown Limited jobcode	suitability	revision
	-	P1

drawing number
PHLITTLECC.2/132

APPENDIX J: Local Centre Microdrainage Results

Mayer Brown		Page 1	
		Local Centre, Littlehampton Catchment 01	
Date 24/11/2025 File PARCEL B1.SRCX		Designed by AR Checked by SF	
Innovyze		Source Control 2020.1.3	

Summary of Results for 100 year Return Period (+45%)							
Half Drain Time : 678 minutes.							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	5.100	0.700	0.0	4.9	4.9	192.9	O K
30 min Summer	5.334	0.934	0.0	4.9	4.9	257.3	O K
60 min Summer	5.574	1.174	0.0	4.9	4.9	323.5	O K
120 min Summer	5.721	1.321	0.0	4.9	4.9	363.9	O K
180 min Summer	5.799	1.399	0.0	4.9	4.9	385.5	O K
240 min Summer	5.845	1.445	0.0	4.9	4.9	398.2	O K
360 min Summer	5.885	1.485	0.0	5.0	5.0	409.2	O K
480 min Summer	5.892	1.492	0.0	5.0	5.0	411.0	O K
600 min Summer	5.880	1.480	0.0	5.0	5.0	407.8	O K
720 min Summer	5.862	1.462	0.0	4.9	4.9	402.9	O K
960 min Summer	5.828	1.428	0.0	4.9	4.9	393.4	O K
1440 min Summer	5.761	1.361	0.0	4.9	4.9	375.0	O K
2160 min Summer	5.673	1.273	0.0	4.9	4.9	350.6	O K
2880 min Summer	5.592	1.192	0.0	4.9	4.9	328.5	O K
4320 min Summer	5.440	1.040	0.0	4.9	4.9	286.6	O K
5760 min Summer	5.289	0.889	0.0	4.9	4.9	244.9	O K
7200 min Summer	5.121	0.721	0.0	4.9	4.9	198.6	O K
8640 min Summer	5.004	0.604	0.0	4.9	4.9	166.5	O K
10080 min Summer	4.917	0.517	0.0	4.9	4.9	142.4	O K
15 min Winter	5.100	0.700	0.0	4.9	4.9	192.9	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	154.280	0.0	194.1	19
30 min Summer	103.530	0.0	260.2	34
60 min Summer	66.120	0.0	335.9	64
120 min Summer	38.425	0.0	390.5	122
180 min Summer	27.981	0.0	426.5	182
240 min Summer	22.330	0.0	453.8	242
360 min Summer	16.216	0.0	494.2	362
480 min Summer	12.927	0.0	525.2	480
600 min Summer	10.847	0.0	550.7	596
720 min Summer	9.401	0.0	572.5	646
960 min Summer	7.506	0.0	608.8	768
1440 min Summer	5.480	0.0	663.4	1026
2160 min Summer	4.021	0.0	737.5	1448
2880 min Summer	3.241	0.0	792.5	1872
4320 min Summer	2.406	0.0	881.8	2684
5760 min Summer	1.962	0.0	960.3	3520
7200 min Summer	1.685	0.0	1030.8	4184
8640 min Summer	1.497	0.0	1098.8	4920
10080 min Summer	1.362	0.0	1165.8	5552
15 min Winter	154.280	0.0	194.1	19

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Mayer Brown

Page 2

Local Centre, Littlehampton
Catchment 01

Date 24/11/2025
File PARCEL B1.SRCX

Designed by AR
Checked by SF

Micro
Drainage

Innovyze

Source Control 2020.1.3

Summary of Results for 100 year Return Period (+45%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max E Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	5.334	0.934	0.0	4.9	4.9	257.3	O K
60 min Winter	5.575	1.175	0.0	4.9	4.9	323.6	O K
120 min Winter	5.723	1.323	0.0	4.9	4.9	364.4	O K
180 min Winter	5.802	1.402	0.0	4.9	4.9	386.4	O K
240 min Winter	5.850	1.450	0.0	4.9	4.9	399.4	O K
360 min Winter	5.893	1.493	0.0	5.0	5.0	411.3	O K
480 min Winter	6.404	2.004	0.0	5.7	5.7	413.8	O K
600 min Winter	5.896	1.496	0.0	5.0	5.0	412.2	O K
720 min Winter	5.878	1.478	0.0	5.0	5.0	407.3	O K
960 min Winter	5.830	1.430	0.0	4.9	4.9	394.0	O K
1440 min Winter	5.746	1.346	0.0	4.9	4.9	370.7	O K
2160 min Winter	5.613	1.213	0.0	4.9	4.9	334.2	O K
2880 min Winter	5.483	1.083	0.0	4.9	4.9	298.4	O K
4320 min Winter	5.179	0.779	0.0	4.9	4.9	214.7	O K
5760 min Winter	4.935	0.535	0.0	4.9	4.9	147.5	O K
7200 min Winter	4.777	0.377	0.0	4.9	4.9	103.8	O K
8640 min Winter	4.678	0.278	0.0	4.7	4.7	76.6	O K
10080 min Winter	4.617	0.217	0.0	4.5	4.5	59.7	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
30 min Winter	103.530	0.0	260.2	33
60 min Winter	66.120	0.0	335.9	62
120 min Winter	38.425	0.0	390.5	122
180 min Winter	27.981	0.0	426.5	180
240 min Winter	22.330	0.0	453.8	238
360 min Winter	16.216	0.0	494.2	352
480 min Winter	12.927	0.0	525.2	462
600 min Winter	10.847	0.0	550.7	574
720 min Winter	9.401	0.0	572.5	680
960 min Winter	7.506	0.0	608.8	786
1440 min Winter	5.480	0.0	663.5	1084
2160 min Winter	4.021	0.0	737.5	1556
2880 min Winter	3.241	0.0	792.5	2016
4320 min Winter	2.406	0.0	881.9	2848
5760 min Winter	1.962	0.0	960.3	3512
7200 min Winter	1.685	0.0	1030.8	4176
8640 min Winter	1.497	0.0	1098.8	4840
10080 min Winter	1.362	0.0	1165.9	5448

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Micro
Drainage

Designed by AR
Checked by SF

Innovyze	Source Control 2020.1.3
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Rainfall Details

Rainfall Model	FEH
Return Period (years)	100
FEH Rainfall Version	2013
Site Location	GB 502950 104450 TQ 02950 04450
Data Type	Catchment
Summer Storms	Yes
Winter Storms	Yes
Cv (Summer)	1.000
Cv (Winter)	1.000
Shortest Storm (mins)	15
Longest Storm (mins)	10080
Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.510

Time	(mins)	Area
From:	To:	(ha)

0 4 0.510

Mayer Brown		Page 4
	Local Centre, Littlehampton Catchment 01	
Date 24/11/2025 File PARCEL B1.SRCX	Designed by AR Checked by SF	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 7.000

Cellular Storage Structure

Invert Level (m) 4.400 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 ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	290.0	0.0	1.501	0.0	0.0
1.500	290.0	0.0			

Hydro-Brake® Optimum Outflow Control

Unit Reference MD-SHE-0098-5000-1500-5000
Design Head (m) 1.500
Design Flow (l/s) 5.0
Flush-Flo™ Calculated
Objective Minimise upstream storage
Application Surface
Sump Available Yes
Diameter (mm) 98
Invert Level (m) 4.400
Minimum Outlet Pipe Diameter (mm) 150
Suggested Manhole Diameter (mm) 1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.500	5.0
Flush-Flo™	0.431	4.9
Kick-Flo®	0.878	3.9
Mean Flow over Head Range	-	4.3

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	3.2	1.200	4.5	3.000	6.9	7.000	10.3
0.200	4.4	1.400	4.8	3.500	7.4	7.500	10.7
0.300	4.8	1.600	5.1	4.000	7.9	8.000	11.0
0.400	4.9	1.800	5.4	4.500	8.4	8.500	11.3
0.500	4.9	2.000	5.7	5.000	8.8	9.000	11.6
0.600	4.8	2.200	6.0	5.500	9.2	9.500	11.9
0.800	4.3	2.400	6.2	6.000	9.6		
1.000	4.1	2.600	6.5	6.500	10.0		

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Mayer Brown		Page 1	
		Local Centre, Littlehampton Catchment 02	
Date 24/11/2025 File BLOCK B PARCEL.SRCX		Designed by AR Checked by SF	
Innovyze		Source Control 2020.1.3	

Summary of Results for 100 year Return Period (+45%)							
Half Drain Time : 745 minutes.							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control Σ (l/s)	Max Outflow (l/s)	Max Volume (m ³)	Status
15 min Summer	5.085	0.585	0.0	10.0	10.0	394.5	O K
30 min Summer	5.278	0.778	0.0	10.0	10.0	525.1	O K
60 min Summer	5.477	0.977	0.0	10.0	10.0	658.8	O K
120 min Summer	5.591	1.091	0.0	10.0	10.0	736.2	O K
180 min Summer	5.651	1.151	0.0	10.0	10.0	776.1	O K
240 min Summer	5.683	1.183	0.0	10.0	10.0	797.6	O K
360 min Summer	5.703	1.203	0.0	10.0	10.0	811.4	O K
480 min Summer	5.695	1.195	0.0	10.0	10.0	806.0	O K
600 min Summer	5.672	1.172	0.0	10.0	10.0	790.3	O K
720 min Summer	5.643	1.143	0.0	10.0	10.0	770.7	O K
960 min Summer	5.600	1.100	0.0	10.0	10.0	741.8	O K
1440 min Summer	5.538	1.038	0.0	10.0	10.0	700.1	O K
2160 min Summer	5.463	0.963	0.0	10.0	10.0	649.6	O K
2880 min Summer	5.394	0.894	0.0	10.0	10.0	602.7	O K
4320 min Summer	5.258	0.758	0.0	10.0	10.0	511.4	O K
5760 min Summer	5.117	0.617	0.0	10.0	10.0	415.8	O K
7200 min Summer	4.976	0.476	0.0	10.0	10.0	321.2	O K
8640 min Summer	4.873	0.373	0.0	10.0	10.0	251.4	O K
10080 min Summer	4.793	0.293	0.0	10.0	10.0	197.5	O K
15 min Winter	5.085	0.585	0.0	10.0	10.0	394.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Discharge Volume (m ³)	Time-Peak (mins)
15 min Summer	154.280	0.0	404.4	19
30 min Summer	103.530	0.0	543.1	34
60 min Summer	66.120	0.0	693.5	64
120 min Summer	38.425	0.0	806.7	122
180 min Summer	27.981	0.0	881.6	182
240 min Summer	22.330	0.0	938.2	242
360 min Summer	16.216	0.0	1021.6	362
480 min Summer	12.927	0.0	1085.4	480
600 min Summer	10.847	0.0	1138.9	600
720 min Summer	9.401	0.0	1184.6	670
960 min Summer	7.506	0.0	1260.4	782
1440 min Summer	5.480	0.0	1380.7	1040
2160 min Summer	4.021	0.0	1518.7	1452
2880 min Summer	3.241	0.0	1632.5	1876
4320 min Summer	2.406	0.0	1818.6	2720
5760 min Summer	1.962	0.0	1976.4	3520
7200 min Summer	1.685	0.0	2122.5	4184
8640 min Summer	1.497	0.0	2262.1	4928
10080 min Summer	1.362	0.0	2402.1	5640
15 min Winter	154.280	0.0	404.4	19

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	Local Centre, Littlehampton Catchment 02	
Date 24/11/2025 File BLOCK B PARCEL.SRCX	Designed by AR Checked by SF	
Innovyze Source Control 2020.1.3		

Rainfall Details

Rainfall Model	FEH
Return Period (years)	100
FEH Rainfall Version	2013
Site Location	GB 502950 104450 TQ 02950 04450
Data Type	Catchment
Summer Storms	Yes
Winter Storms	Yes
Cv (Summer)	1.000
Cv (Winter)	1.000
Shortest Storm (mins)	15
Longest Storm (mins)	10080
Climate Change %	+45

Time Area Diagram

Total Area (ha) 1.050

Time (mins)	Area
From:	To: (ha)
0	4 1.050

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Mayer Brown		Page 4
	Local Centre, Littlehampton Catchment 02	
Date 24/11/2025 File BLOCK B PARCEL.SRCX	Designed by AR Checked by SF	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 7.000

Cellular Storage Structure

Invert Level (m) 4.500 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 ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	710.0	0.0	1.501	0.0	0.0
1.500	710.0	0.0			

Hydro-Brake® Optimum Outflow Control

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) 4.200
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		

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		Local Centre, Littlehampton Catchment 03					
Date 24/11/2025 File Left Half Block A Parce...		Designed by AR Checked by SF					
Innovyze		Source Control 2020.1.3					
<u>Summary of Results for 100 year Return Period (+45%)</u> Half Drain Time : 464 minutes.							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	4.377	0.477	0.0	2.5	2.5	67.9	O K
30 min Summer	4.533	0.633	0.0	2.5	2.5	90.3	O K
60 min Summer	4.692	0.792	0.0	2.5	2.5	112.8	O K
120 min Summer	4.779	0.879	0.0	2.5	2.5	125.2	O K
180 min Summer	4.819	0.919	0.0	2.5	2.5	130.9	O K
240 min Summer	4.836	0.936	0.0	2.5	2.5	133.4	O K
360 min Summer	4.837	0.937	0.0	2.5	2.5	133.6	O K
480 min Summer	4.821	0.921	0.0	2.5	2.5	131.2	O K
600 min Summer	4.803	0.903	0.0	2.5	2.5	128.7	O K
720 min Summer	4.786	0.886	0.0	2.5	2.5	126.2	O K
960 min Summer	4.751	0.851	0.0	2.5	2.5	121.3	O K
1440 min Summer	4.687	0.787	0.0	2.5	2.5	112.1	O K
2160 min Summer	4.597	0.697	0.0	2.5	2.5	99.3	O K
2880 min Summer	4.499	0.599	0.0	2.5	2.5	85.3	O K
4320 min Summer	4.330	0.430	0.0	2.5	2.5	61.2	O K
5760 min Summer	4.216	0.316	0.0	2.5	2.5	45.1	O K
7200 min Summer	4.141	0.241	0.0	2.5	2.5	34.4	O K
8640 min Summer	4.092	0.192	0.0	2.4	2.4	27.3	O K
10080 min Summer	4.059	0.159	0.0	2.3	2.3	22.7	O K
15 min Winter	4.376	0.476	0.0	2.5	2.5	67.9	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
15 min Summer	154.280	0.0	69.1	19			
30 min Summer	103.530	0.0	92.9	34			
60 min Summer	66.120	0.0	119.4	64			
120 min Summer	38.425	0.0	138.7	122			
180 min Summer	27.981	0.0	151.6	182			
240 min Summer	22.330	0.0	161.3	242			
360 min Summer	16.216	0.0	175.7	360			
480 min Summer	12.927	0.0	186.7	436			
600 min Summer	10.847	0.0	195.9	494			
720 min Summer	9.401	0.0	203.7	556			
960 min Summer	7.506	0.0	216.8	686			
1440 min Summer	5.480	0.0	237.3	966			
2160 min Summer	4.021	0.0	261.8	1384			
2880 min Summer	3.241	0.0	281.4	1788			
4320 min Summer	2.406	0.0	313.1	2508			
5760 min Summer	1.962	0.0	340.8	3176			
7200 min Summer	1.685	0.0	365.9	3888			
8640 min Summer	1.497	0.0	390.0	4584			
10080 min Summer	1.362	0.0	413.8	5248			
15 min Winter	154.280	0.0	69.1	18			
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Date 24/11/2025 File Left Half Block A Parce...		Designed by AR Checked by SF					
Innovyze		Source Control 2020.1.3					
<u>Summary of Results for 100 year Return Period (+45%)</u>							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control E (l/s)	Max Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	4.534	0.634	0.0	2.5	2.5	90.3	O K
60 min Winter	4.692	0.792	0.0	2.5	2.5	112.9	O K
120 min Winter	4.780	0.880	0.0	2.5	2.5	125.4	O K
180 min Winter	4.821	0.921	0.0	2.5	2.5	131.3	O K
240 min Winter	4.840	0.940	0.0	2.5	2.5	134.0	O K
360 min Winter	4.844	0.944	0.0	2.5	2.5	134.6	O K
480 min Winter	4.829	0.929	0.0	2.5	2.5	132.3	O K
600 min Winter	4.804	0.904	0.0	2.5	2.5	128.8	O K
720 min Winter	4.782	0.882	0.0	2.5	2.5	125.7	O K
960 min Winter	4.737	0.837	0.0	2.5	2.5	119.3	O K
1440 min Winter	4.641	0.741	0.0	2.5	2.5	105.6	O K
2160 min Winter	4.477	0.577	0.0	2.5	2.5	82.2	O K
2880 min Winter	4.330	0.430	0.0	2.5	2.5	61.3	O K
4320 min Winter	4.140	0.240	0.0	2.5	2.5	34.2	O K
5760 min Winter	4.047	0.147	0.0	2.3	2.3	21.0	O K
7200 min Winter	4.004	0.104	0.0	2.1	2.1	14.8	O K
8640 min Winter	3.989	0.089	0.0	1.9	1.9	12.7	O K
10080 min Winter	3.981	0.081	0.0	1.7	1.7	11.5	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	103.530	0.0	92.9	33			
60 min Winter	66.120	0.0	119.4	62			
120 min Winter	38.425	0.0	138.7	120			
180 min Winter	27.981	0.0	151.6	178			
240 min Winter	22.330	0.0	161.3	236			
360 min Winter	16.216	0.0	175.7	348			
480 min Winter	12.927	0.0	186.7	454			
600 min Winter	10.847	0.0	195.9	546			
720 min Winter	9.401	0.0	203.7	570			
960 min Winter	7.506	0.0	216.8	724			
1440 min Winter	5.480	0.0	237.3	1038			
2160 min Winter	4.021	0.0	261.8	1468			
2880 min Winter	3.241	0.0	281.4	1820			
4320 min Winter	2.406	0.0	313.1	2508			
5760 min Winter	1.962	0.0	340.8	3168			
7200 min Winter	1.685	0.0	365.9	3752			
8640 min Winter	1.497	0.0	390.0	4408			
10080 min Winter	1.362	0.0	413.8	5144			
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Rainfall Details

Rainfall Model	FEH
Return Period (years)	100
FEH Rainfall Version	2013
Site Location	GB 502950 104450 TQ 02950 04450
Data Type	Catchment
Summer Storms	Yes
Winter Storms	Yes
Cv (Summer)	1.000
Cv (Winter)	1.000
Shortest Storm (mins)	15
Longest Storm (mins)	10080
Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.181

	Time (mins)	Area
From:	To:	(ha)
	0	4 0.181

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Innovyze	Source Control 2020.1.3	

Model Details

Storage is Online Cover Level (m) 5.650

Cellular Storage Structure

Invert Level (m) 3.900 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 ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	150.0	0.0	1.001	0.0	0.0
1.000	150.0	0.0			

Hydro-Brake® Optimum Outflow Control

Unit Reference MD-SHE-0075-2500-1000-2500
Design Head (m) 1.000
Design Flow (l/s) 2.5
Flush-Flo™ Calculated
Objective Minimise upstream storage
Application Surface
Sump Available Yes
Diameter (mm) 75
Invert Level (m) 3.900
Minimum Outlet Pipe Diameter (mm) 100
Suggested Manhole Diameter (mm) 1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.000	2.5
Flush-Flo™	0.307	2.5
Kick-Flo®	0.627	2.0
Mean Flow over Head Range	-	2.2

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	2.1	1.200	2.7	3.000	4.1	7.000	6.2
0.200	2.4	1.400	2.9	3.500	4.5	7.500	6.4
0.300	2.5	1.600	3.1	4.000	4.7	8.000	6.6
0.400	2.5	1.800	3.3	4.500	5.0	8.500	6.8
0.500	2.4	2.000	3.4	5.000	5.3	9.000	7.0
0.600	2.1	2.200	3.6	5.500	5.5	9.500	7.1
0.800	2.3	2.400	3.7	6.000	5.7		
1.000	2.5	2.600	3.9	6.500	6.0		

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Date 24/11/2025 File Right Half Block A Parc...		Designed by AR Checked by SF	
Innovyze		Source Control 2020.1.3	

Summary of Results for 100 year Return Period (+45%)							
Half Drain Time : 1537 minutes.							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control Σ (l/s)	Max Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	3.561	0.561	0.0	2.0	2.0	154.6	O K
30 min Summer	3.750	0.750	0.0	2.0	2.0	206.7	O K
60 min Summer	3.950	0.950	0.0	2.0	2.0	261.7	O K
120 min Summer	4.084	1.084	0.0	2.2	2.2	298.7	O K
180 min Summer	4.164	1.164	0.0	2.2	2.2	320.8	O K
240 min Summer	4.219	1.219	0.0	2.3	2.3	335.8	O K
360 min Summer	4.286	1.286	0.0	2.3	2.3	354.4	O K
480 min Summer	4.326	1.326	0.0	2.4	2.4	365.3	O K
600 min Summer	4.350	1.350	0.0	2.4	2.4	371.9	O K
720 min Summer	4.363	1.363	0.0	2.4	2.4	375.5	O K
960 min Summer	4.370	1.370	0.0	2.4	2.4	377.4	O K
1440 min Summer	4.349	1.349	0.0	2.4	2.4	371.7	O K
2160 min Summer	4.315	1.315	0.0	2.4	2.4	362.4	O K
2880 min Summer	4.283	1.283	0.0	2.3	2.3	353.6	O K
4320 min Summer	4.224	1.224	0.0	2.3	2.3	337.2	O K
5760 min Summer	4.174	1.174	0.0	2.2	2.2	323.6	O K
7200 min Summer	4.131	1.131	0.0	2.2	2.2	311.7	O K
8640 min Summer	4.095	1.095	0.0	2.2	2.2	301.7	O K
10080 min Summer	4.066	1.066	0.0	2.1	2.1	293.5	O K
15 min Winter	3.561	0.561	0.0	2.0	2.0	154.6	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	154.280	0.0	148.1	19
30 min Summer	103.530	0.0	163.4	34
60 min Summer	66.120	0.0	264.1	64
120 min Summer	38.425	0.0	304.4	124
180 min Summer	27.981	0.0	326.5	184
240 min Summer	22.330	0.0	335.3	242
360 min Summer	16.216	0.0	339.1	362
480 min Summer	12.927	0.0	339.8	482
600 min Summer	10.847	0.0	339.9	602
720 min Summer	9.401	0.0	339.8	722
960 min Summer	7.506	0.0	339.8	960
1440 min Summer	5.480	0.0	341.8	1254
2160 min Summer	4.021	0.0	583.2	1640
2880 min Summer	3.241	0.0	623.0	2044
4320 min Summer	2.406	0.0	605.4	2856
5760 min Summer	1.962	0.0	762.2	3696
7200 min Summer	1.685	0.0	818.1	4544
8640 min Summer	1.497	0.0	871.9	5360
10080 min Summer	1.362	0.0	924.8	6160
15 min Winter	154.280	0.0	148.1	19

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Micro
Drainage

Designed by AR

Checked by SF

Source Control 2020.1.3

0 4 0.405

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	Local Centre, Littlehampton Catchment 04	
Date 24/11/2025 File Right Half Block A Parc...	Designed by AR Checked by SF	
Innovyze	Source Control 2020.1.3	

Model Details

Storage is Online Cover Level (m) 5.500

Cellular Storage Structure

Invert Level (m) 3.000 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 ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	290.0	0.0	1.501	0.0	0.0
1.500	290.0	0.0			

Hydro-Brake® Optimum Outflow Control

Unit Reference MD-SHE-0068-2500-1500-2500
Design Head (m) 1.500
Design Flow (l/s) 2.5
Flush-Flo™ Calculated
Objective Minimise upstream storage
Application Surface
Sump Available Yes
Diameter (mm) 68
Invert Level (m) 3.000
Minimum Outlet Pipe Diameter (mm) 100
Suggested Manhole Diameter (mm) 1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.500	2.5
Flush-Flo™	0.300	2.0
Kick-Flo®	0.609	1.7
Mean Flow over Head Range	-	2.0

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	1.7	1.200	2.3	3.000	3.4	7.000	5.1
0.200	2.0	1.400	2.4	3.500	3.7	7.500	5.3
0.300	2.0	1.600	2.6	4.000	3.9	8.000	5.4
0.400	2.0	1.800	2.7	4.500	4.2	8.500	5.6
0.500	1.9	2.000	2.9	5.000	4.4	9.000	5.8
0.600	1.7	2.200	3.0	5.500	4.6	9.500	5.9
0.800	1.9	2.400	3.1	6.000	4.8		
1.000	2.1	2.600	3.2	6.500	4.9		

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		Local Centre, Littlehampton Catchment 05	
Date 24/11/2025 File PARKING SQUARE.SRCX		Designed by AR Checked by SF	
Innovyze		Source Control 2020.1.3	

Summary of Results for 100 year Return Period (+45%)								
Half Drain Time : 492 minutes.								
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control Σ (l/s)	Max Outflow (l/s)	Max Volume (m³)	Status	
15 min Summer	3.731	0.731	0.0	4.9	4.9	138.9	O K	
30 min Summer	3.972	0.972	0.0	4.9	4.9	184.8	O K	
60 min Summer	4.215	1.215	0.0	4.9	4.9	230.8	O K	
120 min Summer	4.349	1.349	0.0	4.9	4.9	256.2	O K	
180 min Summer	4.410	1.410	0.0	4.9	4.9	267.9	O K	
240 min Summer	4.438	1.438	0.0	4.9	4.9	273.1	O K	
360 min Summer	4.441	1.441	0.0	4.9	4.9	273.8	O K	
480 min Summer	4.416	1.416	0.0	4.9	4.9	269.0	O K	
600 min Summer	4.389	1.389	0.0	4.9	4.9	264.0	O K	
720 min Summer	4.363	1.363	0.0	4.9	4.9	259.0	O K	
960 min Summer	4.312	1.312	0.0	4.9	4.9	249.2	O K	
1440 min Summer	4.217	1.217	0.0	4.9	4.9	231.3	O K	
2160 min Summer	4.090	1.090	0.0	4.9	4.9	207.1	O K	
2880 min Summer	3.968	0.968	0.0	4.9	4.9	184.0	O K	
4320 min Summer	3.695	0.695	0.0	4.9	4.9	132.1	O K	
5760 min Summer	3.511	0.511	0.0	4.9	4.9	97.1	O K	
7200 min Summer	3.387	0.387	0.0	4.9	4.9	73.6	O K	
8640 min Summer	3.306	0.306	0.0	4.8	4.8	58.1	O K	
10080 min Summer	3.251	0.251	0.0	4.6	4.6	47.6	O K	
15 min Winter	3.731	0.731	0.0	4.9	4.9	138.9	O K	

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	154.280	0.0	141.7	19
30 min Summer	103.530	0.0	190.2	34
60 min Summer	66.120	0.0	244.1	64
120 min Summer	38.425	0.0	283.8	122
180 min Summer	27.981	0.0	310.0	182
240 min Summer	22.330	0.0	329.9	242
360 min Summer	16.216	0.0	359.3	360
480 min Summer	12.927	0.0	381.9	438
600 min Summer	10.847	0.0	400.6	496
720 min Summer	9.401	0.0	416.6	558
960 min Summer	7.506	0.0	443.4	690
1440 min Summer	5.480	0.0	485.4	968
2160 min Summer	4.021	0.0	535.3	1384
2880 min Summer	3.241	0.0	575.3	1812
4320 min Summer	2.406	0.0	640.2	2548
5760 min Summer	1.962	0.0	696.8	3232
7200 min Summer	1.685	0.0	748.0	3896
8640 min Summer	1.497	0.0	797.3	4584
10080 min Summer	1.362	0.0	846.1	5248
15 min Winter	154.280	0.0	141.7	19

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Innovyze Source Control 2020.1.3		

Rainfall Details

Rainfall Model	FEH
Return Period (years)	100
FEH Rainfall Version	2013
Site Location	GB 502950 104450 TQ 02950 04450
Data Type	Catchment
Summer Storms	Yes
Winter Storms	Yes
Cv (Summer)	1.000
Cv (Winter)	1.000
Shortest Storm (mins)	15
Longest Storm (mins)	10080
Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.370

	Time (mins)	Area
From:	To:	(ha)
	0	4 0.370

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Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 5.500

Cellular Storage Structure

Invert Level (m) 3.000 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 ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	200.0	0.0	1.501	0.0	0.0
1.500	200.0	0.0			

Hydro-Brake® Optimum Outflow Control

Unit Reference MD-SHE-0098-5000-1500-5000
Design Head (m) 1.500
Design Flow (l/s) 5.0
Flush-Flo™ Calculated
Objective Minimise upstream storage
Application Surface
Sump Available Yes
Diameter (mm) 98
Invert Level (m) 3.000
Minimum Outlet Pipe Diameter (mm) 150
Suggested Manhole Diameter (mm) 1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.500	5.0
Flush-Flo™	0.431	4.9
Kick-Flo®	0.878	3.9
Mean Flow over Head Range	-	4.3

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	3.2	1.200	4.5	3.000	6.9	7.000	10.3
0.200	4.4	1.400	4.8	3.500	7.4	7.500	10.7
0.300	4.8	1.600	5.1	4.000	7.9	8.000	11.0
0.400	4.9	1.800	5.4	4.500	8.4	8.500	11.3
0.500	4.9	2.000	5.7	5.000	8.8	9.000	11.6
0.600	4.8	2.200	6.0	5.500	9.2	9.500	11.9
0.800	4.3	2.400	6.2	6.000	9.6		
1.000	4.1	2.600	6.5	6.500	10.0		

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