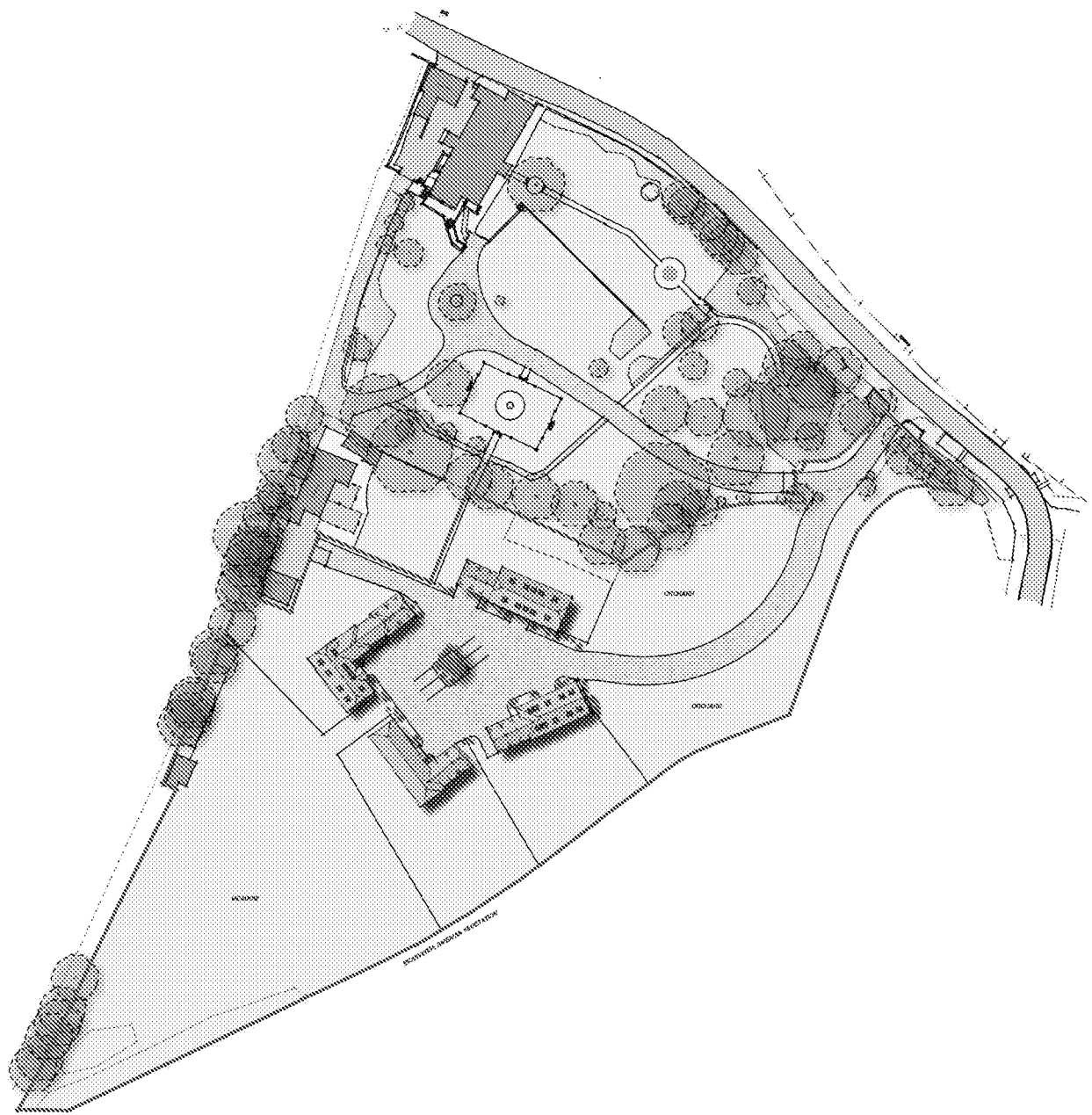


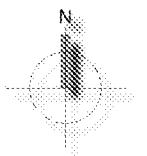
APPENDIX 1 SITE LAYOUT PLANS



1 Site Plan
Scale: 1:1000

Notes:
 1. DO NOT SCALE FROM THIS DRAWING (EXCEPT FOR PLANNING APPLICATION PURPOSES).
 2. ALL DIMENSIONS AND LEVELS TO BE CHECKED ON SITE BEFORE CARRYING OUT WORK.
 3. ALL DISCREPANCIES TO BE REPORTED TO THE ARCHITECT BEFORE CARRYING OUT WORK.
 4. READ WITH OTHER CONTRACT DOCUMENTS
 5. IF IN DOUBT ASK.
 CONSENT IS REQUIRED FOR ITS USE, REPRODUCTION OR FOR COPYING TO ANY THIRD PARTY.

0m 10m 25m 50m
5m



Revision notes:

Rev: Date:

1 1

Drawn by:

NM

Project:

Banham, Hoe Lane, Farnham PO22 8NP, UK

Date:

05/04/2021

Scale @ A3:

1 to 1000 at A3

Revision:

1

Client:

Mr Victor Courje

Drawing Title:

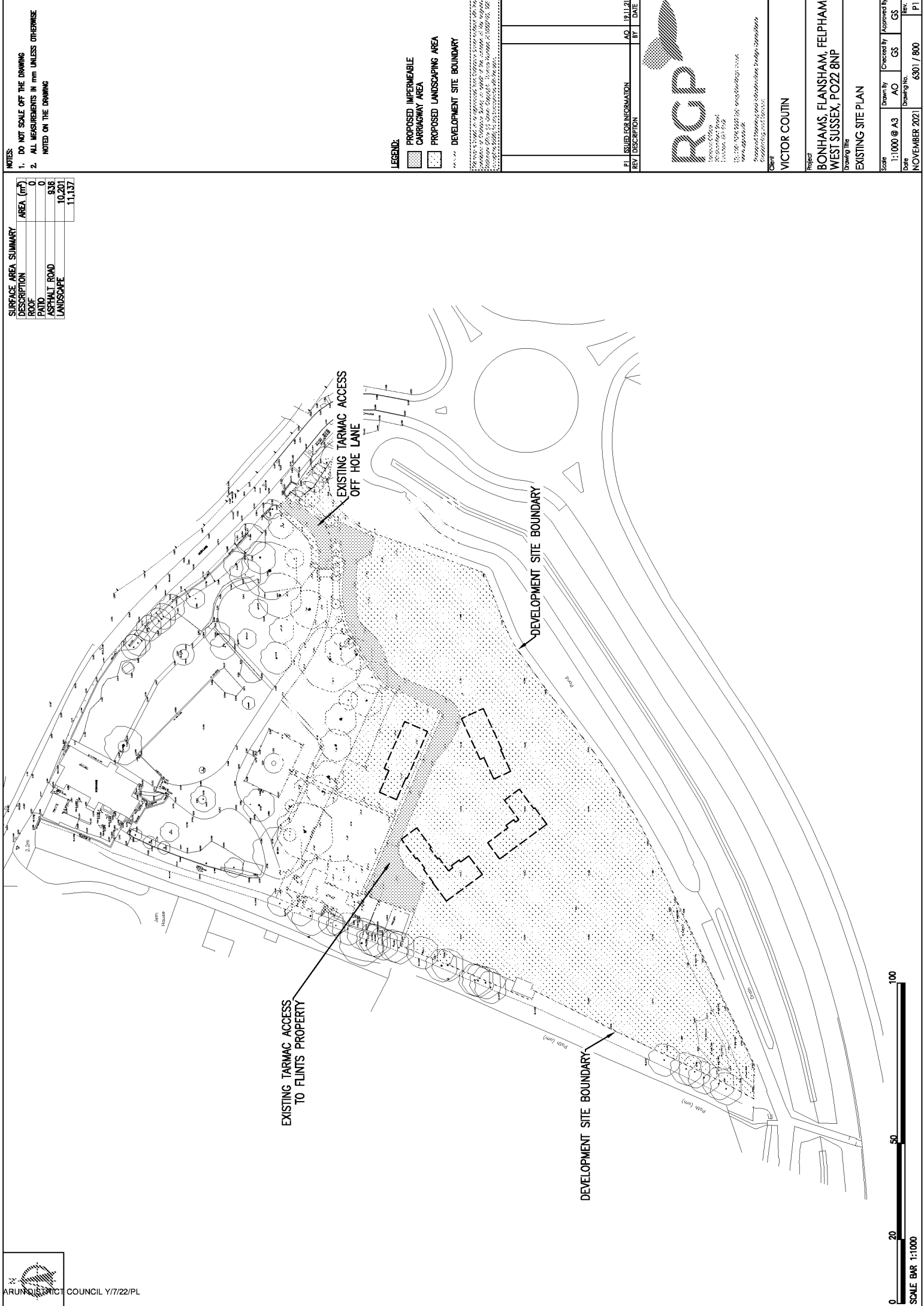
W1959-a - Site Plan

W H A L E B A C K

Trinity Cottage, Boxgrove
Chichester PO18 0NW

01243 514945
www.whaleback.co.uk





SURFACE AREA SUMMARY

DESCRIPTION	AREA (m ²)
ROOF	0
PATIO	0
ASPHALT ROAD	936
LANDSCAPE	10,201
	11,137

NOTES:

- DO NOT SCALE OFF THE DRAWING
- ALL MEASUREMENTS IN mm UNLESS OTHERWISE NOTED ON THE DRAWING

LEGEND:

[Hatched Box]	PROPOSED IMPERMEABLE CARRIAGEWAY AREA
[Dotted Box]	PROPOSED LANDSCAPING AREA
[Dashed Line]	DEVELOPMENT SITE BOUNDARY

Rev

REV	DESCRIPTION	BY	DATE
1	ISSUED FOR INFORMATION	AO	19.11.21

Client

VICTOR COUTIN

Project

BONHAM'S FLANSHAM, FELPHAM
WEST SUSSEX, PO22 8NP

Drawing Title

EXISTING SITE PLAN

Scale

1:1000 @ A3

Date

NOVEMBER 2021

Drawn By

AO

Checked By

CS

Approved By

CS

Rev.

6301 / 800

Pt

P1

RCP

Residential Construction Practice
2000 The Old Rectory
1000 The Old Rectory
www.rcp.co.uk

Client

VICTOR COUTIN

Project

BONHAM'S FLANSHAM, FELPHAM
WEST SUSSEX, PO22 8NP

Drawing Title

EXISTING SITE PLAN

Scale

1:1000 @ A3

Date

NOVEMBER 2021

Drawn By

AO

Checked By

CS

Approved By

CS

Rev.

6301 / 800

Pt

P1

1. DO NOT SCALE OFF THE DRAWING

2. ALL MEASUREMENTS IN mm UNLESS OTHERWISE NOTED ON THE DRAWING

 PROPOSED ROOF AREA
 EXISTING IMPERMEABLE CARRIAGEWAY AREA
 PROPOSED PERMEABLE BLOCK PAVING AREA
 PROPOSED LANDSCAPING AREA
 DEVELOPMENT SITE BOUNDARY

[illegible]

PI	ISSUED FOR INFORMATION	AO	19.11.21
REV	DESCRIPTION	BY	DATE

[illegible]

Journal of Interpersonal Violence 28(12)

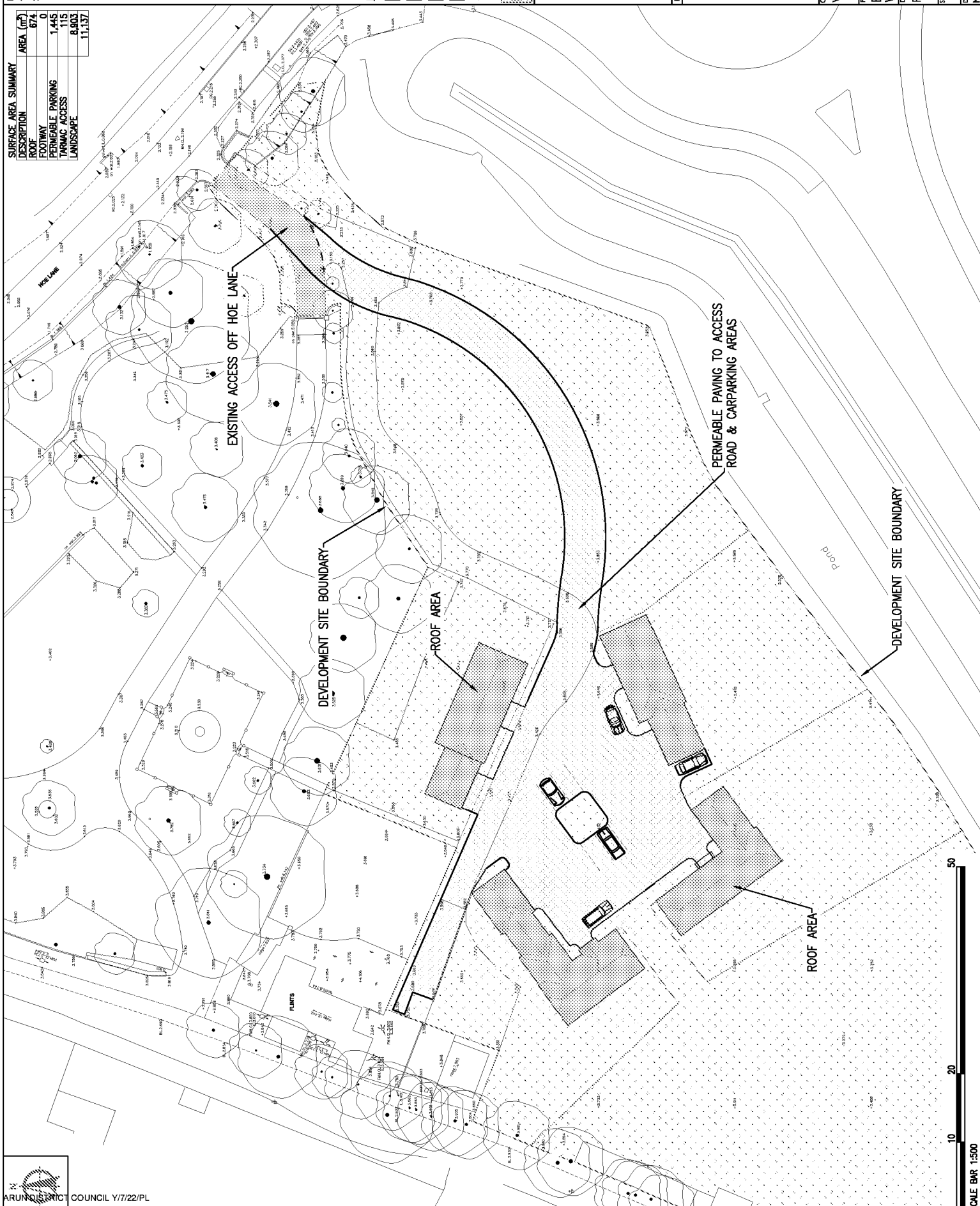
Client _____

VICTOR COUTIN

Project: B30NHAMS, FLANSHAM, FELPHAM
WEST SUSSEX, PO22 8NP

PROPOSED SITE PLAN

code	1:500 @ A3	Drawn By AO	Checked By GS	Approved By GS
date	NOVEMBER 2021	Drawing No. 6301 / 801	Rev. P1	



Age Group	Number of Respondents
10	10
20	20
30	30
40	40
50	50

SCALE BAR 1:500

ARUN DISTRICT COUNCIL Y/7/22/PL



NOTES:

1. DO NOT SCALE OFF THE DRAWING
2. ALL MEASUREMENTS IN mm UNLESS OTHERWISE NOTED ON THE DRAWING

LEGEND:

MAJOR CONTOUR

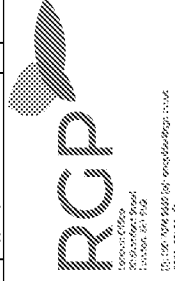
MINOR COUNTY

EXISTING CONTAINER LEVELS

ADDITIONAL COMMENTS:

THE NEW YORK PUBLIC LIBRARY, ASTOR LENOX TILDEN FOUNDATION, 410 FIFTH AVENUE, NEW YORK, N. Y. 10018

P1	ISSUED FOR INFORMATION	AO	19.11.21
REV	DESCRIPTION	BY	DATE



Client _____

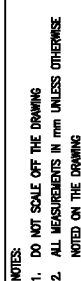
VICTOR COUTIN

Project
BONHAM, FLANSHAM, FELPHAM
WEST SUSSEX. PQ22 8NP

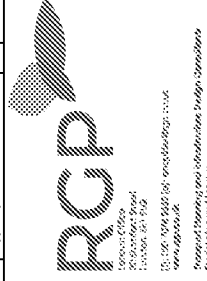
EXISTING SITE | LEVELS

Code	1:500 @ A3	Drawn By	AO	Checked By	GS	Approved By	GS
Date	NOVEMBER 2021	Drawing No.		6301 / 803		Rev.	P1

APPENDIX 2 DRAINAGE STRATEGY LAYOUT

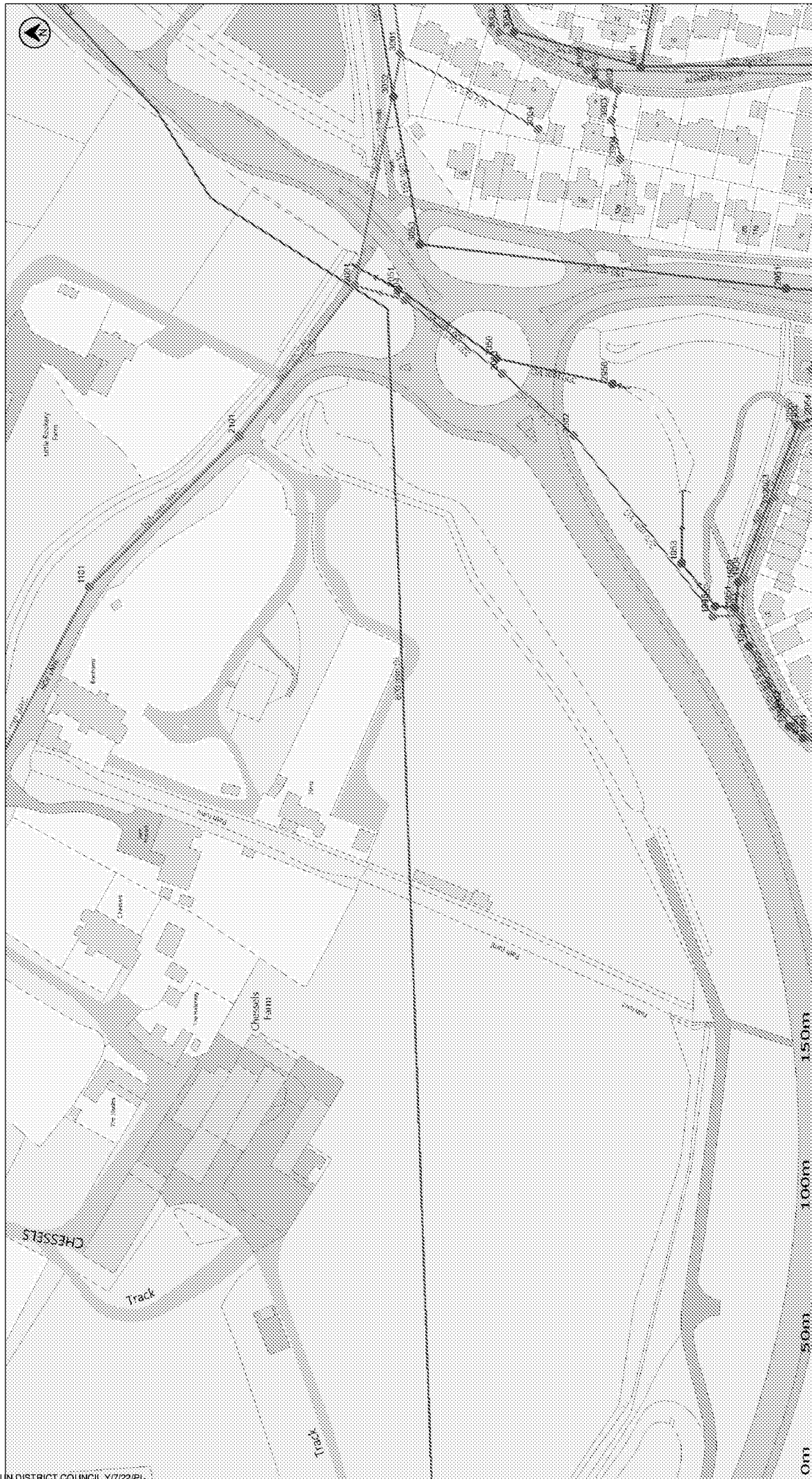


P1	ISSUED FOR INFORMATION	AO	19.11.21
REV	DESCRIPTION	BY	DATE



WICTOR COUTIN	DRAINAGE STRATEGY
Project GONHAMS, FLANSHAM, FELPHAM, WEST SUSSEX, PO22 8NP	Scale 1:500 @ A3 Drawn By AO Checked By CS Approved By CS
Date	Drawing No. 6301 / 803 Rev. P1
Date	NOVEMBER 2021

APPENDIX 3 SEWER RECORDS, CORRESPONDENCE AND FLOODING INFORMATION



(c) Crown copyright and database rights 2021 Ordnance Survey 100031673
Map Centre: 496138,101064
Scale: 1:1250
Date: 17/11/21
Our Ref: 705252 - 1
Data updated: 20/10/21
Wastewater Plan A3

The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd accept no responsibility in the event of inaccuracy. The actual positions should be determined on site. This plan is produced by Southern Water Services Ltd (c) Crown copyright and database rights 2021 Ordnance Survey 100031673. This map is to be used for the purposes of viewing the location of Southern Water plant only. Any other uses of the map data or further copies is not permitted.

WARNING: BAC pipes are constructed of Bonded Asbestos Cement.

WARNING: Unknown (UNK) materials may include Bonded Asbestos Cement.

Foul Sewer	Confined Gravelly Sewer	Surface Water Drains	Surface Water Pumping Station	Surface Water Pumping Station	Surface Water Pumping Station
Foul Sewer	Confined Gravelly Sewer	Surface Water Drains	Surface Water Pumping Station	Surface Water Pumping Station	Surface Water Pumping Station

g.adam@gp.co.uk
6301

6301

APPENDIX 4 RGP DRAINAGE CALCULATIONS

Project: Bonhams, Felphams
Number: 6301
Date: 19/11/2021
Engineer: AO



Rev: A

EXISTING SITE RUNOFF CALCULATION

Existing Site Information

Total Development Site Area	11137	m ²
Permeable Site Area	10201	m ²
Roof Area	0	m ²
Hardstanding Area	936	m ²
Runoff Coefficient	95%	(fill in as decimal)
Climate Change Allowance	40%	

Rainfall Data:

The Existing Site Runoff has been calculated using the 'Design and Analysis of Urban Storm Drainage - Wallingford Procedure Vol 4 - Modified Rational Method'

Site Post Code	PO22 8NP
M5-60	20
r	0.4

from
www.uksuds.com

Storm	Z1	Rainfall Depth (mm)
M5-5	0.37	7
M5-10	0.52	10
M5-15	0.63	13
M5-30	0.8	16
M5-60	1	20
M5-120	1.21	24
M5-240	1.45	29
M5-360	1.6	32
M5-600	1.79	36
M5-1440	2.24	45

Existing Surface Water Runoff

(From Table A1 - Volume 4 - Modified Rational Method)

Storm	Z2	Rainfall Depth (mm)	Intensity (mm/hr)	Qmax (l/s)	Volume (m ³)
M2-5	0.79	6	70.15	17.33	5.20
M2-10	0.79	8	49.30	12.18	7.31
M2-15	0.80	10	40.12	9.91	8.92
M2-30	0.80	13	25.66	6.34	11.41
M2-60	0.81	16	16.20	4.00	14.41
M2-120	0.82	20	9.90	2.44	17.60
M2-240	0.83	24	6.00	1.48	21.35
M2-360	0.83	27	4.44	1.10	23.67
M2-600	0.84	30	2.99	0.74	26.61
M2-1440	0.85	38	1.58	0.39	33.66

RGP - Transport Planning and Infrastructure Design Consultants

Surrey Office: Unacknowledged Suite, M8 Properties, M8 Lane, Guildford, Surrey GU1 1EY

London Office: 30 Stamford Street, London SE1 9LS

Project: Bonhams, Felphams
Number: 6301
Date: 19/11/2021
Engineer: AO



Rev: A

EXISTING SITE RUNOFF CALCULATION

Storm	Z2	Rainfall Depth (mm)	Intensity (mm/hr)	Qmax (l/s)	Volume (m³)
M30-5	1.45	11	128.94	31.85	9.55
M30-10	1.49	15	92.98	22.97	13.78
M30-15	1.51	19	76.20	18.82	16.94
M30-30	1.53	24	48.96	12.09	21.77
M30-60	1.54	31	30.87	7.62	27.45
M30-120	1.54	37	18.58	4.59	33.04
M30-240	1.52	44	11.00	2.72	39.13
M30-360	1.50	48	8.02	1.98	42.80
M30-600	1.49	53	5.32	1.31	47.28
M30-1440	1.44	65	2.69	0.67	57.50

Storm	Z2	Rainfall Depth (mm)	Intensity (mm/hr)	Qmax (l/s)	Volume (m³)
M100-5	1.84	14	163.21	40.31	12.09
M100-10	1.91	20	119.18	29.44	17.66
M100-15	1.96	25	98.68	24.37	21.94
M100-30	2.00	32	63.94	15.79	28.43
M100-60	2.03	41	40.60	10.03	36.10
M100-120	2.01	49	24.37	6.02	43.34
M100-240	1.98	57	14.34	3.54	51.01
M100-360	1.95	63	10.42	2.57	55.60
M100-600	1.92	69	6.88	1.70	61.18
M100-1440	1.85	83	3.45	0.85	73.70

Storm	Rainfall Depth (mm)	Intensity (mm/hr)	Qmax (l/s)	Volume (m³)
M100-5 + 40%	19.04	228.50	56.44	16.93
M100-10 + 40%	27.81	166.86	41.21	24.73
M100-15 + 40%	34.54	138.16	34.12	30.71
M100-30 + 40%	44.76	89.51	22.11	39.80
M100-60 + 40%	56.84	56.84	14.04	50.54
M100-120 + 40%	68.23	34.12	8.43	60.67
M100-240 + 40%	80.31	20.08	4.96	71.41
M100-360 + 40%	87.54	14.59	3.60	77.84
M100-600 + 40%	96.33	9.63	2.38	85.66
M100-1440 + 40%	116.03	4.83	1.19	103.18

RGP - Transport Planning and Infrastructure Design Consultants

Surrey Office: Innovation Suite, Mill Pond House, Mill Lane, Goddington, Surrey GU27 1EY
 London Office: 30 Stamford Street, London SE1 9LJ

Project: Bonhams, Felphams
 Number: 6301
 Date: 19/11/2021
 Engineer: AO



Rev: A

PROPOSED SITE RUNOFF CALCULATION

Proposed Site Information

Total Development Site Area	11137	m ²
Permeable Site Area	8903	m ²
Roof Area	674	m ²
Hardstanding Area	1560	m ²
Runoff Coefficient	95%	(fill in as decimal)
Climate Change Allowance	40%	

The SW drainage system is to be designed for the 1:30 year storm event

Rainfall Data:

The Proposed Site Runoff has been calculated using the 'Design and Analysis of Urban Storm Drainage - Wallingford Procedure Vol 4 - Modified Rational Method'

Site Post Code	PO22 8NP
M5-60	20
r	0.4

from
www.uksuds.com

Storm	Z1	Rainfall Depth (mm)
M5-5	0.37	7
M5-10	0.52	10
M5-15	0.63	13
M5-30	0.8	16
M5-60	1	20
M5-120	1.21	24
M5-240	1.45	29
M5-360	1.6	32
M5-600	1.79	36
M5-1440	2.24	45

Proposed Surface Water Runoff

(From Table A1 - Volume 4 - Modified Rational Method)

Storm	Z2	Rainfall Depth (mm)	Intensity (mm/hr)	Qmax (l/s)	Volume (m ³)
M2-5	0.79	6	70.15	41.36	12.41
M2-10	0.79	8	49.30	29.06	17.44
M2-15	0.80	10	40.12	23.65	21.29
M2-30	0.80	13	25.66	15.13	27.23
M2-60	0.81	16	16.20	9.55	34.38
M2-120	0.82	20	9.90	5.84	42.01
M2-240	0.83	24	6.00	3.54	50.96
M2-360	0.83	27	4.44	2.62	56.50
M2-600	0.84	30	2.99	1.76	63.52
M2-1440	0.85	38	1.58	0.93	80.34

RGP - Transport Planning and Infrastructure Design Consultants

Surrey Office: Innovation Suite, Mill Pond House, Mill Lane, Godalming, Surrey GU7 1EY

London Office: 30 Stamford Street, London SE1 9LS



Rev: A

PROPOSED SITE RUNOFF CALCULATION

Storm	Z2	Rainfall Depth (mm)	Intensity (mm/hr)	Qmax (l/s)	Volume (m³)
M30-5	1.45	11	128.94	76.01	22.80
M30-10	1.49	15	92.98	54.81	32.89
M30-15	1.51	19	76.20	44.92	40.43
M30-30	1.53	24	48.96	28.86	51.95
M30-60	1.54	31	30.87	18.20	65.51
M30-120	1.54	37	18.58	10.95	78.85
M30-240	1.52	44	11.00	6.49	93.39
M30-360	1.50	48	8.02	4.73	102.14
M30-600	1.49	53	5.32	3.13	112.85
M30-1440	1.44	65	2.69	1.59	137.23

Storm	Z2	Rainfall Depth (mm)	Intensity (mm/hr)	Qmax (l/s)	Volume (m³)
M100-5	1.84	14	163.21	96.22	28.87
M100-10	1.91	20	119.18	70.26	42.16
M100-15	1.96	25	98.68	58.18	52.36
M100-30	2.00	32	63.94	37.69	67.85
M100-60	2.03	41	40.60	23.93	86.17
M100-120	2.01	49	24.37	14.37	103.44
M100-240	1.98	57	14.34	8.45	121.74
M100-360	1.95	63	10.42	6.14	132.70
M100-600	1.92	69	6.88	4.06	146.03
M100-1440	1.85	83	3.45	2.04	175.90

Storm	Rainfall Depth (mm)	Intensity (mm/hr)	Qmax (l/s)	Volume (m³)
M100-5 + 40%	19.04	228.50	134.71	40.41
M100-10 + 40%	27.81	166.86	98.37	59.02
M100-15 + 40%	34.54	138.16	81.45	73.30
M100-30 + 40%	44.76	89.51	52.77	94.98
M100-60 + 40%	56.84	56.84	33.51	120.63
M100-120 + 40%	68.23	34.12	20.11	144.81
M100-240 + 40%	80.31	20.08	11.84	170.44
M100-360 + 40%	87.54	14.59	8.60	185.78
M100-600 + 40%	96.33	9.63	5.68	204.44
M100-1440 + 40%	116.03	4.83	2.85	246.25

NRP - Transport Planning and Infrastructure Design Consultants

Survey Office: SurveyOffice@nrc.ca, 1000 Lakeshore Blvd., N8B 2R6, N. York, Ont. M2N 6K6, Canada

London Office 30 Stamford Street, London SE1 9AG

Project: Bonhams, Felphams
Number: 6301
Date: 19/11/2021
Engineer: AO

PROPOSED STORAGE CALCULATION - CATCHMENT 1

Site Information

Total Development Site Area	11137	m ²
Permeable Site Area	8903	m ²
Roof Area	674	m ²
Hardstanding Area	1445	m ²
Runoff Coefficient	95%	(fill in as decimal)
Climate Change Allowance	40%	

Discharge Rate
4.00 l/s

From "GRR" or
"Existing Runoff" calc

The SW drainage system is to be designed for the 1:30 year storm event

Rainfall Data:

The Proposed Site Runoff has been calculated using the 'Design and Analysis of Urban Storm Drainage - Wallingford Procedure Vol 4 - Modified Rational Method'

Site Post Code	PO22 8NP	
M5-60	20	mm
r	0.4	

from
www.uksuds.com

Storm	Z1	Rainfall Depth (mm)
M5-5	0.37	7
M5-10	0.52	10
M5-15	0.63	13
M5-30	0.8	16
M5-60	1	20
M5-120	1.21	24
M5-240	1.45	29
M5-360	1.6	32
M5-600	1.79	36
M5-1440	2.24	45

Proposed Surface Water Runoff

(From Table A1 - Volume 4 - Modified Rational Method)

Storm	Z2	Rainfall Depth (mm)	Intensity (mm/hr)	Qmax (l/s)	Volume (m ³)	Outflow (m ³)	Storage (m ³)
M2-5	0.79	6	70.15	39.23	11.77	1.2	10.57
M2-10	0.79	8	49.30	27.57	16.54	2.4	14.14
M2-15	0.80	10	40.12	22.43	20.19	3.6	16.59
M2-30	0.80	13	25.66	14.35	25.83	7.2	18.63
M2-60	0.81	16	16.20	9.06	32.61	14.4	18.21
M2-120	0.82	20	9.90	5.53	39.85	28.8	11.05
M2-240	0.83	24	6.00	3.36	48.34	57.6	0.00
M2-360	0.83	27	4.44	2.48	53.60	86.4	0.00
M2-600	0.84	30	2.99	1.67	60.25	144	0.00
M2-1440	0.85	38	1.58	0.88	76.21	345.6	0.00

Project: Bonhams, Felphams
Number: 6301
Date: 19/11/2021
Engineer: AO

PROPOSED STORAGE CALCULATION - CATCHMENT 1

Storm	Z2	Rainfall Depth (mm)	Intensity (mm/hr)	Qmax (l/s)	Volume (m³)	Outflow (m³)	Storage (m³)
M30-5	1.45	11	128.94	72.10	21.63	1.2	20.43
M30-10	1.49	15	92.98	51.99	31.19	2.4	28.79
M30-15	1.51	19	76.20	42.61	38.35	3.6	34.75
M30-30	1.53	24	48.96	27.38	49.28	7.2	42.08
M30-60	1.54	31	30.87	17.26	62.14	14.4	47.74
M30-120	1.54	37	18.58	10.39	74.80	28.8	46.00
M30-240	1.52	44	11.00	6.15	88.58	57.6	30.98
M30-360	1.50	48	8.02	4.49	96.88	86.4	10.48
M30-600	1.49	53	5.32	2.97	107.04	144	0.00
M30-1440	1.44	65	2.69	1.51	130.17	345.6	0.00

Storm	Z2	Rainfall Depth (mm)	Intensity (mm/hr)	Qmax (l/s)	Volume (m³)	Outflow (m³)	Storage (m³)
M100-5	1.84	14	163.21	91.27	27.38	1.2	26.18
M100-10	1.91	20	119.18	66.65	39.99	2.4	37.59
M100-15	1.96	25	98.68	55.18	49.66	3.6	46.06
M100-30	2.00	32	63.94	35.75	64.35	7.2	57.15
M100-60	2.03	41	40.60	22.70	81.73	14.4	67.33
M100-120	2.01	49	24.37	13.63	98.11	28.8	69.31
M100-240	1.98	57	14.34	8.02	115.47	57.6	57.87
M100-360	1.95	63	10.42	5.83	125.87	86.4	39.47
M100-600	1.92	69	6.88	3.85	138.51	144	0.00
M100-1440	1.85	83	3.45	1.93	166.84	345.6	0.00

Storm	Rainfall Depth (mm)	Intensity (mm/hr)	Qmax (l/s)	Volume (m³)	Outflow (m³)	Storage (m³)
M100-5 + 40%	19	228.50	127.77	38.33	1.2	37.13
M100-10 + 40%	28	166.86	93.30	55.98	2.4	53.58
M100-15 + 40%	35	138.16	77.25	69.53	3.6	65.93
M100-30 + 40%	45	89.51	50.05	90.09	7.2	82.89
M100-60 + 40%	57	56.84	31.78	114.42	14.4	100.02
M100-120 + 40%	68	34.12	19.08	137.36	28.8	108.56
M100-240 + 40%	80	20.08	11.23	161.66	57.6	104.06
M100-360 + 40%	88	14.59	8.16	176.22	86.4	89.82
M100-600 + 40%	96	9.63	5.39	193.92	144	49.92
M100-1440 + 40%	116	4.83	2.70	233.58	345.6	0.00

Estimated Storage Requirement:

48 m³ (for 1:30 year storm event)
70 m³ (for 1:100 year storm event)
109 m³ (for 1:100 year + climate change storm event)

APPENDIX 5 MAINTENANCE AND MANAGEMENT STRATEGY REPORT

**RESIDENTIAL DEVELOPMENT AT
BONHAMS, FLANSHAM, FELPHAM,
WEST SUSSEX, PO22 8NP**

**Surface Water Maintenance &
Management Strategy**

**for the erection of 4no. 4-bed detached
dwellings, with associated car parking and
landscape enhancements**

On behalf of Victor Coulin

6301/MAM_01

November 2021

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4	RESPONSIBILITY FOR INSPECTIONS AND MAINTENANCE	3

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1 INTRODUCTION

- 1.1.1 Regular inspections and maintenance of the surface water drainage system is important to ensure the effective and efficient operation of the system and to reduce the likelihood of blockages and flooding on site.
- 1.1.2 The surface water drainage network, which includes geocellular crate systems, associated underground pipework, manholes, access chambers, linear drainage channels and gullies has been designed to operate in such a way that the system will empty between storm events. This includes all channels, pipelines and the geocellular crate systems.
- 1.1.3 The system has been designed to accommodate all storm water runoff for the design storm up to and including the 1:100 + 40% for climate change rainfall event and should not need to be inspected or maintained for the first 12 months following construction, during the defects liability period for the construction works.
- 1.1.4 A post-construction CCTV survey of the installed system should be undertaken to confirm the system has been installed in accordance with the drawings and specification and that there are no damages or obstructions within the system.
- 1.1.5 The information from the CCTV survey should be included in the Health & Safety File or O&M manual for the site, which should be passed to the management company and/or individual owner(s) for their information. Once the defects liability period has lapsed, the surface water drainage system should be inspected at regular intervals and any blockages cleared or remediation works undertaken at the earliest opportunity to ensure the effective operation of the drainage system.

2 INSPECTION REGIME

- 2.1.1 The surface water drainage system should be inspected and cleaned by a suitable Specialist Contractor, in accordance with the guidance provided in BE EN 752 Part 7 1998 "Maintenance and Operations" and "Safe Working in Sewers and at Sewage Works", published by the National Joint Health and Safety Committee for the Water Services.
- 2.1.2 The system should be monitored monthly by lifting the covers to the manholes and chambers to monitor debris build-up. If required, these are to be cleaned at the earliest opportunity to prevent blockages.
- 2.1.3 Every six months, the drainage system should be inspected to identify areas that are not operating as required and any remedial works identified should be carried out at the earliest opportunity.
- 2.1.4 Refer to the Surface Water Management Schedule, detailed in Table 1, below, for the proposed maintenance schedule for the site.

Table 1 – Surface Water Maintenance Schedule

Feature	Schedule	Required Action	Frequency
Geocellular Crate System	Regular	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, then annually
		Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
		For systems where rainfall infiltrates into the tank from above, check surface of filter for blockage by sediment, algae or other matter; remove and replace surface infiltration medium as necessary.	Annually
		Remove sediment from pre-treatment structures	Annually, or as required
	Remedial	Repair/rehabilitate inlets, outlet, overflows and vents	As required
	Monitoring	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed	Annually
Pervious Pavement	Regular	Stabilise and mow contributing and adjacent areas	As required
	Occasional	Removal of weeds or management using glyphosate applied directly into the weeds by an applicator rather than spraying	As required – once per year or less frequently used pavements
		Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50 mm of the level of the paving	As required
	Remedial	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users, and replace lost jointing material	As required
		Rehabilitation of surface and upper substructure by remedial sweeping	Every 10 to 15 years or as required (if infiltration performance is reduced due to significant clogging)
		Initial inspection	Monthly for three months after installation
	Monitoring	Inspect for evidence of poor operation and/or weed growth – if required, take remedial action	Three-monthly, 48 h after large storms in first six months
		Inspect silt accumulation rates and establish appropriate brushing frequencies	Annually
		Monitor inspection chambers	Annually
		Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, then annually
Drainage (Pipe Network)	Regular	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
		Maintain vegetation to designed limits within the vicinity of below ground drainage pipes to avoid damage to system.	Monthly or as required
		Inspect rainwater down pipes, channel drains and road gullies, removing obstructions and silt as necessary. Check there is no physical damage.	Monthly
		Remove silt and leaf build up from manholes, gutters etc.	Annually (or as required)

Feature	Schedule	Required Action	Frequency
	Occasional	Remove sediment from pre-treatment inlet structures and inspection chambers.	Annually (or as required)
		Remove inspection covers and inspect, ensuring that the water is flowing freely and that the exit route for water is unobstructed. Remove debris and silt.	Annually
		Removal of sediment, oil, grease and floatables from separator	Biannually (or as required)
		Replacement of malfunctioning parts	As Required
	Remedial	Repair physical damage if necessary	As Required
		Inspect inlets and pre-treatment systems for silt accumulation. Establish appropriate silt removal frequencies.	Biannually
	Monitoring	Underlake inspection after leaf fall in Autumn	Annually
		inspect all inlets, outlets and vents to ensure that they are in good condition and operating as designed.	Annually
		Survey inside of pipe runs for sediment build up and remove if necessary.	Every 5 years or as required
		Check manholes, gutters etc. for silt and leaf build up.	Annually

2.1.5 A full CCTV survey of the surface water drainage system should also be carried out at 10-yearly intervals to assess the condition of the drainage system.

2.1.6 Reference should also be made to the manufacturer's detailed information and maintenance requirements for their recommended intervals and safe methods of cleaning for the following proprietary systems which are formerly recorded:

- Geocellular Crate System
- Permeable Pavement System
- Specialist Filtration Systems (ACO 'Quadraceptor' or similar)

3 RESIDUAL RISKS

3.1.1 In all instances, all underground and under-floor drains, access chambers and manholes represent working in confined spaces. Appropriate precautions should be taken before entering drains and manholes. Access should only be undertaken by appropriately trained personnel.

3.1.2 Reference should be made to the as-built drawings for the site, which detail the layout and additional information for the drainage system. A copy of the drawings should be maintained in the Health & Safety file for the site and/or within the O&M manual.

4 RESPONSIBILITY FOR INSPECTIONS AND MAINTENANCE

4.1.1 The responsibility for the inspection and maintenance of the surface water drainage system lies with the Management Company or owner(s) of the individual properties.

4.1.2 In the event no Management Company is appointed, the responsibility for inspections and maintenance of the surface water drainage system lies wholly with the individual property owner(s).

- 4.1.3 The recommendations included in this Maintenance and Management Strategy are typical and may need to be amended to suit the site-specific requirements of the development, individual users and owner(s) requirements throughout the life span of the development.