

SuDS Maintenance & Management Plan

16 Worthing Road, Ferring, BN16 1AZ

Client

Randall & Chisnall Construction Ltd
19 First Avenue
Worthing BN16 1AZ
Ref: 7338A

Consulting Engineers

GTA Civils & Transport Ltd
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Burgess Hill
West Sussex
RH15 9AS
Tel: 01444 871444

1.0 INTRODUCTION

This document has been prepared for Randall & Chisnall Construction Ltd in relation to a proposal at 16 Worthing Road, Ferring, BN16 1AZ.

The document is a SuDS Maintenance & Management Plan to address Pre-commencement Condition 11 of Application Ref: EP/121/17/PL as approved by Arun District Council.

The Site Drainage plan to which this document refers is contained in the Appendix.

No responsibility is accepted to any third party for all or part of this study in connection with this or any other development.

2.0 MAINTENANCE RESPONSIBILITIES

The maintenance responsibilities within this report relate to the SuDS (Sustainable Urban Drainage System) only, which comprises a total infiltration permeable paving system covering the entire front car park/driveway area. The permeable paving system drains the proposed building and the driveway itself.

As this element of the system is shared drainage, its maintenance requirements will be contracted out to an Estate Management company.

The Estate Management Company will seek half-yearly financial contributions (in the form of service charges) from the leaseholders/owners of the development to include for the regular costs of the maintenance of the site drainage. A separate sinking fund will be maintained to provide for the anticipated replacement cost of the major components at the end of the manufacturer's design life and regular maintenance costs in the unlikely event of the Estate Management Company (or any subsequent Estate Management Company) being no longer able to fulfil its duties. These funds are to be held in bank client accounts kept separate from the bank account of the Estate Management Company.

3.0 MANAGEMENT OF SPILLAGE

The Environment Agency would prefer all spillages on any vehicular surface to be contained to prevent any downstream contamination. However, this cannot always be achieved, depending on the nature of the spillage. In all circumstances involving the spillage of substances on a roadway, it is important that the Environment Agency are notified as soon as possible so that they can provide advice and take appropriate action.

Prompt action following a spillage can prevent or reduce its affects, whilst inappropriate action may cause or worsen the pollution effects.

In the event of a spillage on the shared vehicular surface, it is the responsibility of the Property Maintenance company's staff to clear up any spillage before it enters the drainage system. The primary method of dealing with any spillage of hydrocarbons should be to use sand to soak up the leak and prevent any hydrocarbons entering the drainage system. Once sand has been contaminated it should not be washed into the drainage system but disposed of by a Licensed Contractor.

4.0 PERMEABLE SURFACING

Maintenance Schedule	Required action	Typical frequency
Regular maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, annually
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	Remove sediment from surface water chamber sumps and ensure orifice plates protection grill is free of debris.	Annually, or as required
	Brushing of driveway	Weekly, or as required
Monitoring	Pressure jet the distribution blocks from the nearest manhole to ensure free flowing.	Every 5 years or as required.
	Inspect for evidence of poor operation and/or weed growth – if require, take remedial action.	Three-monthly, 48 hours after large storms first six months.

5.0 CATCHPITS & CHANNELS

Schedule	Action	Frequency
Regular Maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	6 Monthly intervals.
	Common car park & other hard standing areas to be swept clear of debris, to prevent possibility of blockages to the receiving drainage systems.	Weekly.
	Debris removal from gullies & silt pits, channel drains (where may cause risks to performance).	6 Monthly intervals, after autumn leaf fall, or as required based on specific observations.
	Lift and inspect receiving manholes from new dwellings within public areas to check for any blockages.	Monthly.
Remedial Actions	Repair any damaged gully gratings or silt pit covers.	As required.

	Replace / fix any loose channel drain covers.	As required.
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Second Issue: 02 June 2020

APPENDIX – SITE DRAINAGE PLAN

WORTHING ROAD

Assumed existing outfall and connection to sewer

NOTE: CONTRACTOR TO CCTV SURVEY EXISTING OUTFALL TO SEWER TO CONFIRM CONDITION, LINE AND POINT OF CONNECTION TO SEWER.

Existing interceptor trap

Existing foul outfall chamber to be raised to suit new cover level. Manhole cover to be replaced with D400 recess type to receive paving infill. Dimensions of cover to match existing clear opening's.

NOTE: 2No INDIRECT CONNECTIONS TO PUBLIC FOUL SEWER REQUIRE CONSENT FROM SOUTHERN WATER VIA S106 APPLICATION

Distribution tank 1
1416mm x 1416mm x 150mm thick
IL 9.640

FIC6
CL 10.050
IL 8.955

Ex.FMH
Boundary manhole/demarcation chamber
Proposed CL ≈ 10.00
Ex CL 9.43
IL 8.45

HL connection from BIG
IL 9.180

Distribution tank 2
1416mm x 708mm x 150mm thick
IL 9.640

PPCP
CL 10.050
IL 9.655
SL 9.155

FIC5
CL 10.200
IL 9.410

SIC
CL 10.200
IL 9.725

FIC4
CL 10.200
IL 9.550

PPCP
CL 10.200
IL 9.800
SL 9.300

FWD 100mm@ 12.75m 1:40

FWD 100mm@ 11.99m 1:24

SWD 150mm@ 10.31m 1:40

FWD 100mm@ 14.35m 1:40

FWD 100mm@ 8.84m 1:19

FWD 100mm@ 11.35m 1:19

FWD 100mm@ 5.63m 1:40

FWD 100mm@ 11.35m 1:19

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FWD 100mm@ 5.63m 1:40

FWD 100mm@ 11.35m 1:19

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PERMEABLE PAVING
CL 10.000
Top of stone 9.890
Bottom of stone 9.630
Depth of stone 260mm
Area 189m²
Volume of stone 14.74m³ (30% voids)
Infiltration sub-base sized for 1 in 100 year + 40% peak storm

Distribution tank 2
1416mm x 708mm x 150mm thick
IL 9.640

PPCP
CL 10.200
IL 9.680
SL 9.180

FIC3
CL 10.200
IL 9.245

FAC

SAC
CL 10.200
IL 9.805

FIC2
CL 10.200
IL 9.505

FIC1
CL 10.200
IL 9.670

FWD 100mm@ 12.62m 1:40

FWD 100mm@ 8.59m 1:40

FWD 100mm@ 12.62m 1:40

FWD 100mm@ 12.62m 1:40

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FWD 100mm@ 12.62m 1:40

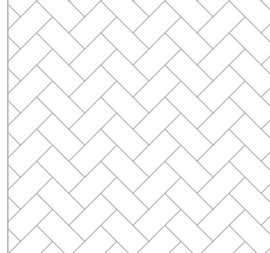
FWD 100mm@ 12.62m 1:40

FWD 100mm@ 12.62m 1:40

FWD 100mm@ 12.62m 1:40

KEY

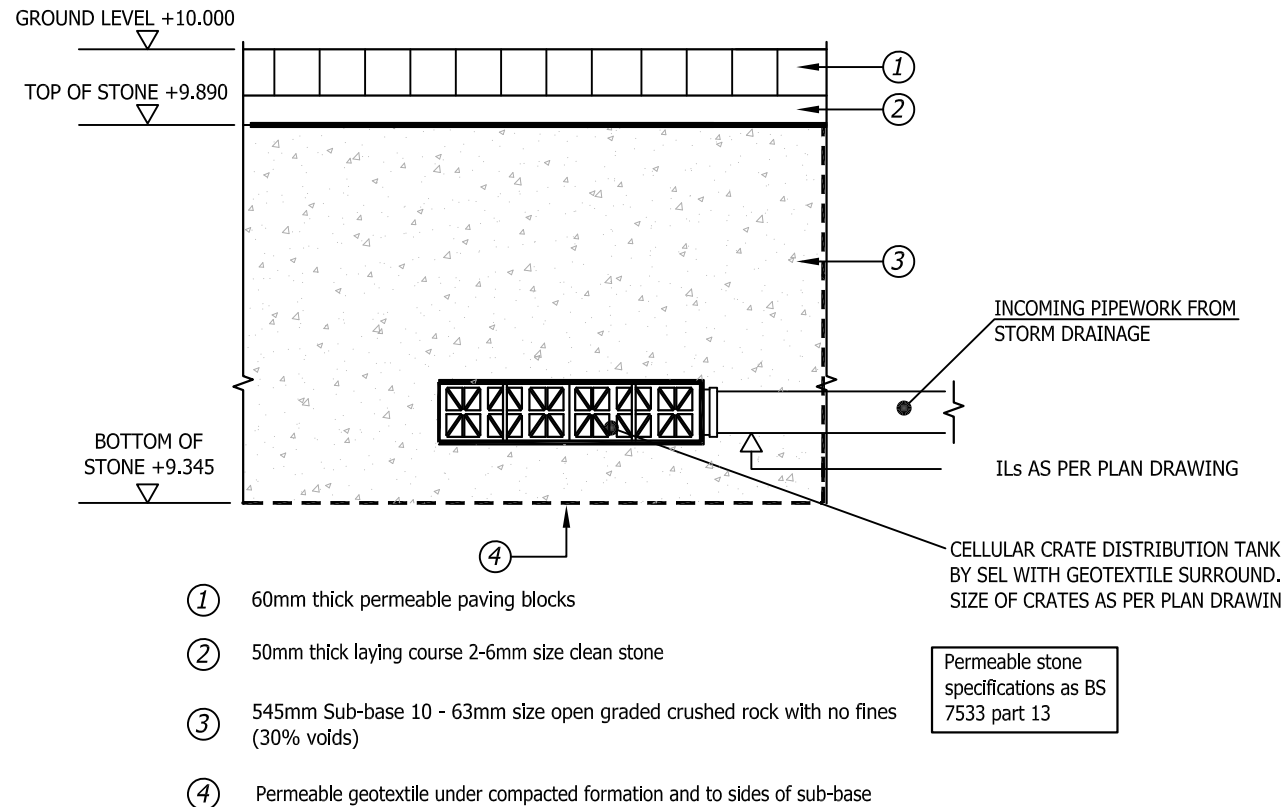
- Surface water drain
- Foul drain
- Existing foul sewer
- RWP
- RP
- SIC
- PPCP
- FIC
- FAC
- BIG
- Drainage channel



PERMEABLE PAVING
TOTAL INFILTRATION
SYSTEM

ABBREVIATIONS

- BIG BIN STORE GULLY
- CL COVER LEVEL
- Ex.FMH EXISTING FOUL MANHOLE
- Ex.FWS EXISTING FOUL SEWER
- FAC FOUL ACCESS CHAMBER
- FIC FOUL INSPECTION CHAMBER
- FFL FINISHED FLOOR LEVEL
- FWD FOUL DRAIN
- GL GROUND LEVEL
- IL INVERT LEVEL
- RP RODDING POINT
- RWP RAINWATER PIPE
- SIC SURFACE WATER INSPECTION CHAMBER
- SL SUMP LEVEL
- SVP SOIL VENT PIPE
- SWD SURFACE WATER DRAIN



- 60mm thick permeable paving blocks
- 50mm thick laying course 2-6mm size clean stone
- 545mm Sub-base 10 - 63mm size open graded crushed rock with no fines (30% voids)
- Permeable geotextile under compacted formation and to sides of sub-base

SECTION THROUGH PERMEABLE PAVING SYSTEM
SHOWING DISTRIBUTION BLOCK

DESIGN NOTES

- INFILTRATION STORAGE SUB-BASE SIZED FOR THE 1 IN 100 YR STORM + 40%.
- INFILTRATION STORAGE DESIGN BASED ON INFILTRATION RATE OF 8.6 x 10⁻⁵ m/s DERIVED FROM FALLING HEAD TESTS WITHIN RIVER TERRACE DEPOSITS RERERENCE GEOTECHNICAL ASSESSMENT REPORT No. R18-12714 BY ASHDOWN SITE INVESTIGATION LTD.
- BRE 365 SOAKGE TESTING AT LOCATION AND DEPTH OF PROPOSED PERMEABLE PAVING SUB-BASE SHOULD BE UNDERTAKEN PRIOR TO DETAILED DESIGN.
- LOCATION OF RWP ON CYCLE STORE TO BE CONFIRMED BY ARCHITECT.
- THIS DRAWING HAS BEEN PRODUCED WITHOUT INPUT FROM A PROPOSED LEVELS PLAN. ALL COVER LEVELS SHOWN ARE PRELIMINARY.
- CONTRACTOR TO UNDERTAKE CCTV SURVEY OF EXISTING DRAINAGE SYSTEM, IN PARTICULAR TO IDENTIFY THE EXISTING OUTFALL'S CONDITION, LINE AND POINT OF CONNECTION TO SEWER.
- 2No INDIRECT CONNECTIONS TO PUBLIC FOUL SEWER REQUIRE CONSENT FROM SOUTHERN WATER VIA S106 APPLICATION.

P1	INITIAL ISSUE		06.05.20	JR	MR
Rev	Amendments		Date	Dsn	Chk
Status					
PRELIMINARY					
Client					
RANDALL & CHISNALL CONSTRUCTION LTD					
Architect					
FOLKES ARCHITECTS					
Project					
16 WORTHING ROAD FERRING, BN16 1AZ					
Title					
SITE DRAINAGE					
Date			Scale @ A1		
MAY 2020			1:100		
Clients Ref.			Project Ref.		
 Civils & Transport Gloucester House, 66a Church Walk, Burgess Hill, West Sussex, RH15 9AS Tel.01444 871444 Web. www.gtacivils.co.uk					
Drawing Number				Rev.	
7338/1601				P1	

