



Turing House,
5 Archway
Manchester
M15 5RL

SuDS MAINTANENCE PLAN

For

Proposed New Residential Development

At

Roundstone Lane

Angmering

BN16 4BB

Project: J5762

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The Owner's manual

This will include the following:

- This document.
- Location of all SuDS component on site (drainage and suds drawings).
- Operation and maintenance schedule (below) and a maintenance record.
- Emergency Plan (below)
- Explanation of the consequences of not carrying out the maintenance that is specified (below)
- Identification of areas where certain activities are prohibited for example, stockpiling materials on pervious surfaces (below).

NOTE: Borehole soakaway and Klargester Bio-disc maintenance and emergency plans are to be submitted by the specialist designers and read alongside this document.

General Requirements

Collection of all litter and debris from communal areas is to be undertaken on a monthly basis by the management company. Home owners should be made aware of the permeable road build ups and should avoid the use of chemical weed killers and de-icing agents where possible.

Financial Management

It is proposed that all SuDS facilities will be managed and maintained in perpetuity by a Management Company acting on behalf of the residential property owners (who will be Directors of the Management Company). The Management Company will be set up prior to the occupation of the first dwelling. The Management Company will be responsible for the management and maintenance of the SUDs outside of the area adopted by West Sussex County Council (ESCC). The maintenance will be carried out by an appointed specialist engineer retained by the Management Company on a fixed contract (of at least 1 year). This will be paid for by the Management Company in perpetuity via an annual maintenance fee for the upkeep of the communal areas including the SUDs system.

Contact details for the Management Company are as follows:

Gold Property Development Ltd
Highclere House
180 Main Road
Biggin Hill
Westerham
Kent
TN16 3BB
Telephone: 01959 543 810 Fax: 01959 570 325

Permeable Paved Areas

Permeable block paving is porous to allow rain to percolate through the surface into the underlying drainage layers. It is important to ensure the block paving is maintained regularly to ensure silt, sand, compost, mulch etc does not block the voids leading to reduced permeability.

Maintenance Schedule	Required Action	Recommended Frequency
Regular maintenance	Brush surface regularly and remove sweepings from hard surfaces.	Monthly
	Brush and suction sweep surface or jet wash and suction sweep surface particularly in autumn after leaf fall	Annually
	Mow grass edges to paving at 35-50mm and remove weed and leaves	As required
	Jetting and suction where silt has accumulated in joints and voids. Replace grit and vibrate surface to lock permeable pavements.	As required
Remedial Actions	Where sinking or surface damage occurs, uplift the block, remove grit bedding layer, geotextile if required and reinstate to design profile	As required
Monitoring	Visual inspections to check for damaged pavements and build-up of silt.	Monthly in the first year, annually thereafter.

Inlet Structures and Inspection Chambers

Inlet structures such as rain water down pipes, road gullies and channel drawings. They should be free from obstruction at all times to allow free flow through SuDS. Inspection chambers and rodding eyes are used on bends or where pipes come together. They allow access and cleaning to the system if necessary.

Maintenance Schedule	Required Action	Recommended Frequency
Regular maintenance	Inspect rainwater down pipes and Aco drains, removing obstructions and silt as necessary. Check there is no physical damage.	Monthly
	Trim vegetation 1m min surround to structure and keep area free from silt and debris	Monthly
	Remove inspection chamber cover and inspect. Water should be free flowing and the exist route is unobstructed. Remove debris and silt. Undertake inspection after leaf fall in Autumn.	Annually
	Check topsoil levels are 20mm above edges of chambers to avoid mower damage.	As necessary
Remedial Actions	Repair physical damage if possible or replace if required.	As required / annual
Monitoring	Visual inspections to check for damage as required	As required

Below Ground Drainage Pipes

Below ground drainage pipes convey water to the SuDS system. They should be free from obstruction at all times to allow free flow.

Maintenance Schedule	Required Action	Recommended Frequency
Regular maintenance	Inspect and identify any areas that are not operating correctly. If require take remedial action.	Monthly for the first 3 months, then annually.
	Remove debris from the catchment surface (where it may cause risks to performance).	Monthly
	Remove sediment from pre-treatment inlet structure and inspection chambers.	Annually or as required
	Maintain vegetation to designed limited within eh vicinity of the below ground drainage pipe and tanks to avoid damage.	Monthly or as required
Remedial Actions	Repair physical damage if possible or replace if required.	As required / annual
Monitoring	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.

Design Life

The design life of the development is likely to exceed the design life of each of the SUDs components listed above. During the routine inspections of any drainage components, it may become apparent that they have reached the end of their functional lifetime. In the interest of sustainability repairs should be the first-choice solution where possible. If this is not the case then it may be necessary for the property owners (if on their property) or the management company to undertake complete replacement of the component in question.

Emergency Plan

Key indicators to prevent flooding;

1. Manholes over flowing
2. Vent pipe overflowing
3. Gullies overflowing or water taking a long time to disperse
4. Aco channels overflowing or water taking a long time to disperse
5. Any other unusual visual items not normally seen such as waterlogged ground

In the event of the above occurring, action is required to be undertaken as outlined below;

1. Check for obvious blockages in area where flooding is occurring (blocked gully's / drains / flow control units etc).
2. If there is nothing obvious as to why there is a blockage, call the statutory wastewater provider – Southern Water to make them aware and report the problem on 0330 303 0368
3. Call a suitable drain inspection company such as 'Lanes for Drains' to survey and possibly jet any blockages. Local depot contact number – 01732 783 110 and inform them of the problems.

Ensure that in the event of the above, the operation, maintenance and emergency plans as well as the drainage drawings for the development are available to the contractors.

Spillage – Emergency action

Most spillages on a development are of compounds that do not pose a serious risk to the environment if they enter the drainage system in a slow and controlled manner with available time for natural breakdown. Therefore, small spillages of oil, milk or other known organic substances should be remove where possible using soak mats as recommended by the Environment Agency, with residual spillage allowed to bioremediate in the drainage system.

In the event of a serious spillage, either by volume of unknow or toxic compounds, then isolate the spillage with soil, turf or fabric and block outlet pipes from chambers downstream of the spillage with a bung.

Contact the Environment Agency immediately. Tel: 03708 506 506