Drainage and SuDS Maintenance Plan

for

Canal Mews, Barnham

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SuDS Maintenance Plan

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Canal Mews, Barnham

Client:
Seaward Properties

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1.0 An introduction to sustainable drainage systems or SuDS

SuDS are an environmentally friendly approach to managing rainfall that uses landscape features to deal with surface water. SuDS aim to:

- Control the flow, volume and frequency of water leaving a development area
- Prevent pollution by intercepting silt and cleaning runoff from hard surfaces
- Provide attractive surroundings for the community
- Create opportunities for wildlife

2.0 SuDS on Site

SuDS at this development have been designed to prevent flooding of both the proposed properties, neighbouring properties and external hard landscaping.

Driveways

Permeable paving with a porous subbase is utilised to infiltrate the surface water run-off into the permeable granular soils below.

Roofs

Run-off from roofs is directed into an attenuation tank within the gardens, which discharges to a culverted watercourse to the northern boundary but also infiltrates to ground.

3.0 SuDS Maintenance Schedule

General Maintenance

In addition to the maintenance of specific SuDS features, such as permeable paving, the following table outlines general maintenance requirement of the surface water system.

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Maintenance Schedule	Required Action	Frequency
Regular Maintenance	Remove sediment & debris from pre-treatment devices & floor of inspection chambers	Annually
	Cleaning of any gutters & any filters on downpipes	Annually
	Trimming and roots that may be causing blockages	Annually (or as required)
Monitoring	Inspect silt traps and note rate of sediment accumulation	Monthly in the first year and then annually

Permeable Block Paving

Permeable surfaces including permeable block paving, porous asphalt, gravel or free draining soils that allow rain to percolate through the surface into underlying drainage layers. They must be protected from silt, sand, compost, mulch, etc. Permeable block paving and porous asphalt can be cleaned by suction brushing.

Maintenance Schedule	Required Action	Frequency
Regular Maintenance	Brushing and vacuuming (standard cosmetic sweep over whole surface)	Twice a year, once after autumn leaf fall, and the second in spring – pay particular attention to areas where water runs onto pervious surface from adjacent impermeable areas as this is most likely to collect sediment.
Occasional Maintenance	Stabilise and mow contributing and adjacent areas	As required
	Removal of weeds or management using glyphosate applied directly into weeds by an applicator rather than spraying	As required – once per year on less frequently used pavements
Remedial Actions	Remediate any landscaping which, though vegetation maintenance or soil slip, has been raised to within 50mm of	As required

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	the level of paving.	
	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users, and replace any 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)
Monitoring	Initial inspection	
	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

Soakaways

Soakaways are buried structures that allow water to soak into the ground. Maintenance will usually be carried our manually, although a suction tanker can be used for sediment/debris removal for large systems. If maintenance is note undertaken for long periods, deposits can become hard-packed and require considerable effort to removed.

Roads and/or parking areas drainage to infiltration components should be regularly swept to prevent silt being washed off the surface. This will minimise the need for maintenance.

Maintenance Schedule	**Required Action**	**Frequency**
Regular Maintenance	Inspect for sediment and debris in pre-treatment components and floor of inspection tube or chamber and inside of concrete manhole rings	Annually

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	Cleaning of gutters and any filters on downpipes	Annually (or as required based on inspections)
	Trimming any roots that may be causing blockages	Annually (or as required)
Occasional Maintenance	Remove sediment and debris from pre-treatment components and floor of inspection tube or chamber and inside of concrete manhole rings	As required, based on inspections
Remedial Actions	Reconstruct soakaway and/or replace or clean void fill, if performance deteriorates or failure occurs	As required
	Replacement of clogged geotextile (will require reconstruction of soakaway)	As required
Monitoring	Inspect silt traps and note rate of sediment accumulation	Monthly in the first year and then annually
	Check soakaway to ensure emptying is occurring	Annually

SuDS Maintenance Responsibility

The maintenance of the SuDS features and drainage generally will be maintained by the future owners of the private properties.

4.0 Foul Drainage on Site

Foul water drainage refers to grey water and sewage and potentially wash-down water from plant rooms and bin stores or waste storage areas.

The foul drainage system at on site comprises a piped network that discharges by gravity into the existing public foul network that runs along the south west of the site.

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5.0 Foul Drainage Maintenance

The foul drainage system has been designed in accordance with the relevant codes of practice and should achieve self-cleansing velocity with the anticipated foul water flows. Maintenance of the system should therefore be minimal, but blockages may occur with improper use, such as inappropriate objects being flushed down toilets, in which case rodding or jetting may be required. This work should be carried out on an ad hoc basis by a specialist contractor.

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