

SNG Hotel Cleator Moor

Formally ; DENTHOLME Address; CRAGG ROAD, CLEATOR MOOR

Car Park SuDs Maintenance Schedule

Maintenance Responsibility

SNG Property Management Ltd.

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Introduction to SuDS

SuDS are an environmentally friendly approach to managing rainfall.

SuDs aim to:

Prevent pollution by intercepting silt and cleaning runoff from hard surfaces

Provide attractive surroundings for the community

Create opportunities for wildlife

Managing the SuDS

The Flood and Water Management Act 2010 currently gives the role of the SuDs Approval Body to the lead local flood authority.

Private Property SuDs

SuDs located within property boundaries are the responsibility of the property owner and may include; permeable driveways and water butts and swale system.

Permeable Paving combines hardstanding with SuDs and is designed to allow rainfall to percolate immediately through the surface near to where the raindrop lands. The water flows into a specially prepared sub-base, where the voids between the stones act as a temporary reservoir. Maintenance of the pavement is carried out to ensure the infiltration of the paving is not compromised as follow;

A visual inspection of the paving should be carried out on a regular basis. This will confirm the effectiveness of the agitation maintenance due to variations between sites and allow any refinement of the regular agitation activity if necessary.

The paving should be agitated (ie - brushed, vacuumed, etc) at least twice a year. This is to ensure no vegetation of any sort is allowed to grow and develop in the joints. Ideally, this activity should be carried out in the spring and autumn seasons.

The paving should be inspected after any heavy precipitation to ensure no displacement of any organic matter onto the surface of the pavement.

Where non-infiltration systems have been employed, the inspection of the outfalls should be undertaken initially on a twice-yearly basis.

Weed growth – when sedimentation occurs in areas of permeable paving then there is the potential for weed growth, this will typically occur where there are overhanging trees or soft landscaping slopes down on to the paving or in areas which do not receive over run from vehicles particularly frequently. Weeds can be removed from the surface through the application of weed killers. Glyphosate based weed killers are the most common for general purpose use, they are most effective on grasses and perennial weeds with non-woody stems. Weeds should be sprayed when they are actively growing so that the Glyphosate will go down to the root and kill the weed completely.

SuDS techniques include landscape features and control structures to manage runoff as it flows to site outfalls. The following lists the features may be found on site.

Permeable surfaces as 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.

Inlets and outlets structures are often conveyance pipes protected with mesh guards. They must be free from obstruction at all times to allow free flow through the SuDS.

SuDS flow control structures are usually small orifices in control chamber, slots or V notches in weirs. They are usually near the surface so are accessible and easy to maintain. They may be in baskets, in small chambers or in the open.

Inspection Chambers and rodding eyes are used on bends or where pipes come together. They allow cleaning of the system if necessary. **SuDS design usually avoids** below ground structures such as gully pots, oil separators and other sumps, which are a wildlife hazard, often ineffective and expensive to maintain. SuDS design also reduces pipework, manholes and interceptors. However water may be conveyed in surface features like rills and channels with changes in level managed in spouts or cascades. These hard landscape features require standard landscape maintenance.

Sustainable Drainage Maintenance Specification

GENERAL REQUIREMENTS

Maintenance activities comprise

Regular Maintenance

Occasional Tasks

Remedial Work

General Tasks

Litter

Collect all litter or other debris and remove from site at each site visit

Frequency- Monthly

Avoid use of weedkillers and pesticides to prevent chemical pollution.

Avoid de-icing agents wherever possible to allow bio-remediation of pollutants in permeable surfaces.

Protect all permeable, porous and infiltration surfaces from silt, sand, mulch and other fine particles.

PERMEABLE SURFACES

Regular Maintenance

Cleaning

Brush regularly and remove sweepings from all hard surfaces

Frequency- Monthly

Occasional Tasks

Permeable Pavements. Brush and vacuum surface once a year to prevent silt blockage and enhance design life.

Remedial Work

Monitor effectiveness of permeable pavement and when water does not infiltrate immediately advise Client of possible need for reinstatement of top layers or specialist cleaning.

Recent experience suggests jet washing and suction cleaning will substantially reinstate pavement to 90% efficiency.

Frequency- As required

INLETS, OUTLETS, CONTROLS AND INSPECTION CHAMBERS

Inlets and outlets structures may be surface structures or conveyance pipes with guards or headwalls. They must be free from obstruction at all times.

SuDS flow control structures can be protected orifices, slots weirs or other controls at or near the surface to be accessible and easy to maintain. They may be in baskets, in small chambers or in the open.

Inspection Chambers and rodding eyes are used on bends or where pipes come together and allow cleaning of the system if necessary. They should be designed out of the system where possible.

INLETS, OUTLETS, CONTROLS AND INSPECTION CHAMBERS

Regular Maintenance

Inlets, outlets and surface control structures Inspect surface structures removing obstructions and silt as necessary. Check there is no physical damage. Strim vegetation 1m min. surround to structures and keep hard aprons free from silt and debris. **Frequency-** Monthly

Inspection chambers and below ground control chambers

Remove cover and inspect ensuring water is flowing freely and that the exit route for water is unobstructed. Remove debris and silt. Undertake inspection after leaf fall in autumn. **Frequency-** Annually

Occasional Maintenance

Check topsoil levels are 20mm above edges of baskets and chambers to avoid mower damage.

Remedial Work

Unpack stone in basket features and unblock or repair and repack stone as design detail as necessary. Repair physical damage if necessary.

Frequency- As required

SPILLAGES

EMERGENCY ACTION

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

In the event of a serious spillage, either by volume or of unknown or potentially toxic compounds, then isolate the spillage with soil, turf or fabric and block outlet pipes from chamber(s) downstream of the spillage with a bung(s). (A bung for blocking pipes may be made by wrapping soil or turf in a plastic sheet or close woven fabric.)

Contact the Environment Agency immediately.

