

## Construction Maintenance and Long Term Maintenance of SUDS.

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## Lead Local Flood Authorities as Statutory Consultees

- Must check and approve :-
- SuDS Construction Maintenance Plans
- Long Term SuDS Maintenance Plans
  
- Why?

## Construction Maintenance Plans

- SuDS systems need to be constructed early on in any Development to be effective in the long term.
- This is done, but then they are forgotten.
- They need to be managed to keep construction silt and waste out of them.
- This requires for them to be within the construction plan for the development and be checked by the LLFA.

## The LLFA should be checking:-

- Site methods for keeping:-
- Oil.
- Silt.
- Construction rubbish out of the SuDS systems.
- And the ongoing proposed maintenance of these systems.

- These can include:-
- Temporary oil interceptors.
- Pre – treatment ditches / ponds.
- Silt Busters.
- Etc.
- But these measures must be checked regularly by the Highway Authority Inspectors during the developments construction life.

## This is often forgotten

- So when Developers push for adoption.
- We find:-
- Un-useable SuDS systems.
- Which have to be re-constructed/de-silted.
- At additional costs.
- but more importantly, they are not ready to cope with the Development flows.
- So Pollution can occur - off site.

## SuDS Maintenance Plans

- How often do they appear in the Flood Risk Assessments?
- Along with, we will use these SuDS systems provided the Geotechnical information is favourable!
- Then we get – all in line with the CIRIA C753 manual.
- They seem to forget that the Maintenance Sub-Contractors will have never heard of the manual or the thought of searching through a 1000 page document as (saying I do not have the time).

## Maintenance Sub-Contractors Small Local Firms used



## Therefore what we Need :-

- A stand alone Document with the following information:-
- A SuDS plan of the site.
- What SuDS are on the site.
- What maintenance these SuDS require.
- When these SuDS require maintenance.
- How they should be maintained.

## What annoys me:-

- Cut and paste plans from other sites.
- When they show and describe SuDS, which are not on the development.
- How can Sub-Contractors do accurate costings for Management Companies, when they do not have accurate information to work from.

## The Layout Plan

- Showing all the SuDS – labelled.
- Easy reference to the Maintenance Plan Document.
- If the various ponds / swales require different maintenance regimes, they are labelled separately.

## What SuDS :-

- These need to be stated clearly with the sizes and lengths.
- Simple cross sections included, as the Sub Contractor will not have the standard details for the site.
- This will help him decide if he has the right equipment for the job.

## What Maintenance the Ecologists require

- The depth of cut.
- How often.
- At what time of year.
- What not to touch.
- What methods should be used in the maintenance.

## Waste material

- Have a composting area on site.
- Make life easier for the Sub-Contractor.
- This will make it cheaper for the Residents who fund the Management Company.
- As costs of disposal are expensive.

## Health and Safety

- Finally this is important on how :-
- Green roofs.
- Blue roofs.
- Ponds.
- Their locations.
- Etc. are maintained as this is also our responsibility to check !

## Danger to Residents and Maintenance Staff

- Ponds:-
  1. Must be designed safely.
  2. Not too deep.
  3. No vertical sides.
  4. Easy access for maintenance staff.
  5. Designed for easy maintenance.
  6. No large concrete outfalls.
  7. No fencing.



Porous Paving and Central reserve Drains  
Over the edge drainage to Bio retention  
strips works well.



### Bio retention Example



# Larger Bio retention



# Plastic Box Storage Systems



# Ditches



- Ditches always look good, but can be a magnet for debris.

# Grey Water Re cycling Wheatley Services

