

## Drainage Strategy

It is proposed that the masterplan will drain surface water run-off to the existing Thames Water surface water public sewer.

It has been agreed with Woking Borough Council during the outline planning permission that surface water run-off rates will be reduced by a minimum of 50% prior to discharging into the sewers, therefore reducing the strain on the existing network and the likelihood of flooding. This is in accordance with best practice guidelines.

A number of Sustainable Drainage Systems (SUDS) will be utilised on site in order to provide temporary storage of the water and thus reducing the peak discharge rates into the existing public sewer. This will also provide biodiversity and amenity benefits to the scheme by managing and controlling surface water in a safe and sustainable manner. A summary of the main SUDS systems incorporated are as below:

### *Rain gardens*

It is proposed that a number of rain gardens will be utilised within the external landscaping. A rain



garden is a planted bed that allows rainwater runoff from impermeable urban areas to be absorbed.

### *Swales*

The park areas will utilise swales, which are shallow vegetated open channels designed to convey, treat and attenuate surface water run-off. These will also be used to convey any water from the Basingstoke Canal in the unlikely event of it flooding.



### *Attenuation Tank*

Temporary surface water storage will be provided in below ground attenuation storage tanks which are geocellular modular plastic units. These provide large volumes of storage and are hidden below the ground.



### *Pond*

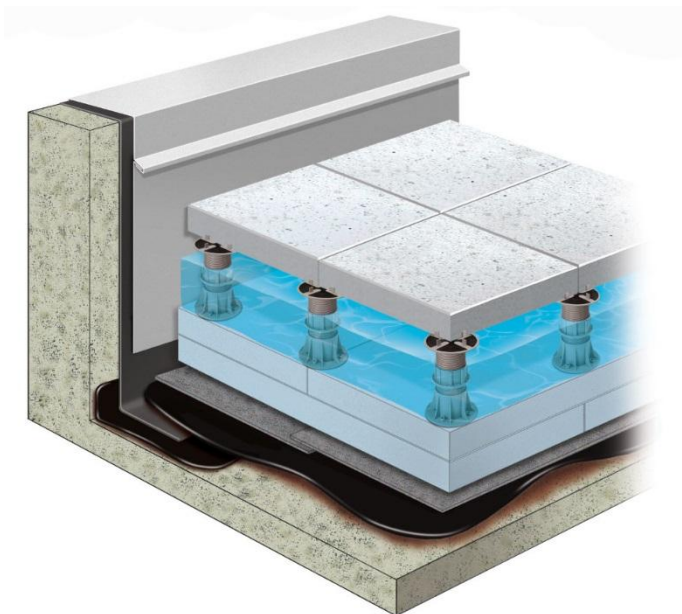
Ponds/wetlands can be provided within the park to provide surface water storage. They can be provided with a permanent body of water where they provide storage above with a varying water level during storm events. Or they could be a depression in the ground which will normally be dry,

except during storm events when this space is being used for temporary storage. During dry weather this space can be used for other purposes.



### Roof/Podium Structures

Roof structures can be utilised to temporarily store surface water run-off above ground on podium structures.



### Foul Water

A new foul water network will be constructed as part of the masterplan and will run underneath the proposed road network where it will connect into the existing foul water public sewers.

A foul water impact study has been undertaken by Thames Water and confirms that the additional foul water flows can be contained with the existing network.