

FORMER READING GOLF CLUB
KIDMORE END ROAD, EMMER, READING
FOR
VISTRY THAMES VALLEY
SURFACE WATER TECHNICAL NOTE

Ref PPB/4652

18/08/2022

This technical note has been prepared to outline the changes to the surface water attenuation and SUDS features as annotated on the original Outline planning application. The original proposals as set out by Fairfax Ltd indicated an attenuation basin in the central open space area linked via an open swale to an attenuation basin/swale in the Northern corner of the site with an additional attenuation basin shown on the western boundary of the site.

We will deal with each feature separately to explain the changes. The extensive ground investigation instructed by Vistry Homes identified two distinct ground conditions on the site with the eastern element of the being predominantly granular soils with reasonable soakage and the north western element being identified as at high risk of solution features with known problems on the existing golf course to the north.

Taking the central attenuation basin, this has been adjusted to suit the existing and proposed levels of the site and to accommodate flows from the main access road from the site entrance off Kidmore End Road through to the northern loop road. This road has a traditional gravity drainage system to be able to offer it for adoption as currently RBC do not adopt permeable paving.

The central basin was also adjusted to provide the correct volume following a detailed analysis of the catchment areas contributing to this feature and to also maximise the retention of existing trees, on the RM application root protection zones were added to ensure these were not encroached on.

The Fairfax proposals also indicated an open swale linking the central attenuation basin to the norther basin/swale and was originally shown skirting the eastern boundary of the open space. With the proposals to increase the planting in this area to compensate for tree loss across the site it was considered prudent to pull this swale forward closer to the road to enable access to maintain and clean the swale and to reduce the amount of leaf litter entering the drainage system. We have subsequently introduced several culverted crossings to this swale to enable permeability for the public to enjoy the open space and to allow for maintenance of the open space.

The ground investigation mentioned above identified good soakage at depth within the underlying chalk strata and the size and location of this swale was adjusted to provide the required attenuation whilst ensuring the feature was 20m from the nearest proposed or existing property to mitigate the potential risk of solution features. Again, the



root protection zones were added to the drawings and the basin/swale was designed to minimise the impact on the retained trees.

The western pond indicated on the Fairfax drawings was not suitably located, with it being located on the high side of the development only limited run off could be taken to this basin without it being overly deep in an area where there are numerous retained trees etc. therefore by maximising the central attenuation basin and the soakage potential within the chalk in the northern basin we have been able to remove this feature and to provide additional open space.

We trust you can see that we have tried to consider all aspects of the layout in designing the surface water and SUDS features for the development to be both sympathetic to both retained and proposed trees and planting whilst providing a robust SUDS design.

Paul P Berrill
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