

Issued Via: Email
To: Ruth Heyes of HTA
Date of Issue: 14th of September 2021

Dear Ruth,

Ref: 2951 - Wensley Road Reading - SuDS drainage systems clarifications

Further to the recent discussions and the request for more data we can advise as follows: -

1. The declared Brownfield Discharge Rate for this site has been stated at 21l/s in the Flood Risk Assessment (FRA).
2. The written agreement achieved with Thames Water if for a limit of 10l/s discharge for the new construction which represents a betterment for the site. This value is declared in the FRA.
3. In the proposed use of soakaways we can advise that prior to April 2021 the Soils Investigation Report could not support the use of soakaways to discharge storm water collected by the new hard surfaces proposed for this site.
4. With additional testing undertaken in April 2021 the soils investigation consultant has suggested some potential for infiltration but at a very low value. A filtration test was conducted on site which supported the previous findings.
5. At the declared infiltration rate WFBA have assessed the size of each soakaway to serve an individual property. These soakaways would need to be 3.2m x 3.2m on plan. While gardens sizes vary the majority are less than 5m in width, with the caveat that all soakaways must be at least 5m off the face off the buildings (Building Regulations) and 2.5m off boundary walls, there is simply not adequate space for the soakaways with the current design.
6. In the original FRA, the use of water butts was put forward to store some water on site, this was a contribution only and such water butts are of no use in the Winter periods when significant rainfall occurs. Water stored has no irrigation benefit in the winter. Accordingly, we must design the site wide solution to cope with 100% of the possible storm water collected off hard surfaces. However as water butts are a preferred addition by the client, they will be incorporated into each individual housing unit as they provide a positive benefit in terms of water usage on the development.
7. There is a potential to separate the run-off from roofs and collect it in underground pipes, store it in attenuation units and release it at a controlled rate into the public sewer system but as the overall site discharge rate has already been agreed at 10l/s this would add cost not just for the roof drainage but also the highway drainage as the reduction in flow into the attenuation proposed under the new highways must be offset by a new discharge for the roof drainage. This would also lead to a full redesign at this stage.

8. I can further confirm that the catch pits and the tree pits will be kept separate and will not clash.

If you wish to discuss any further, please don't hesitate to contact me directly.

Regards,

Eddie Conlon

Edward Conlon BE (Hons) CEng MIEI
Design Manager / Chartered Engineer