

Please find attached comments below on our agreed points and updated calculations and drawing.

3. The calculations do not use the slowest infiltration rate for the site of $2.97 \times 10^{-6} \text{ m/s}$ (SA203). These will need to be adjusted irrespective of the outcome of points 2 and 3.

Calculations updated to use the minimum.

4. Please confirm that the calculations include the access road for the impermeable area. They state 'car park + driveway + roofs', the same is stated for the permeable car parking areas. Please supply an impermeable area plan as per the Drainage Checklist.

Yes all hardstandings have been included to the calculations including the access road. The drained areas are as the noted hatched areas on my drainage GA attached.

5. The calculations do not appear to include an allowance for urban creep (in line with West Sussex Policy for Management of Surface Water para5.6.4 and Table 5.2), please apply an allowance of 10% (based on a residential development density of 24.44 – using 11 homes in 0.45 hectare site). If this is included within the impermeable areas for the calculations please make this clear.

10% urban creep allowance has now been included within the calculations.

6. The calculations use a modified DG365 method to account for infiltration through the base. This is not appropriate, DG365 calculations are designed for infiltration systems where only the sides are utilised.

Please use CIRIA R156 method for plane infiltrating systems.

As the roofs will drain directly into the storage blanket this runoff will not need to percolate through the surface of the blanket, therefore we have used a hybrid version of the guidance to more correctly model our solution, updated calculations attached. The calculations have shown that the access road surface is suitable for the runoff it will receive and the storage is sufficient for the inflow of storm water.

7. Every indication based on the above, is that the design will not meet our half drain requirements (24 hours). Please ask the applicants engineer to consult with this department regarding resolving this issue.

We have made an allowance for additional rain fall within the period above 24hrs and allowed for additional storage within the storage blanket as noted on the calculations.

Regards

Elvin Gomers

For and on behalf of Cowan Consultancy Ltd.

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