taylor
Consulting Engineers

10 June 2026

Wokingham Borough Council
c/o The KEEN Partnership
The Courtyard
Edinburgh Road
Reading
RG30 2UA

Silver Birches, Heath Ride, Finchampstead, Wokingham, RG40 3QJ:
Full application for the proposed erection of 1 no. detached dwelling with 2 no. carports, front wall and entrance gates and associated landscaping, following demolition of the existing dwelling and outbuildings. 251912

Taylor Consulting Engineers have been appointed on behalf of the client to provide the design, modelling and details of the surface water drainage associated with the planning application.

Planning Condition 8
No development shall take place until full details of the drainage system for the site have been submitted to and approved in writing by the LPA. The details shall include:
1) Calculations indicating the existing runoff rate from the site.
2) BRE 365 test results demonstrating that infiltration is achievable.
3) Full calculations demonstrating the performance of soakaways.
4) A demonstration of how surface water runoff is going to be catered for, given that parts of the development site already suffer from surface water flooding.
5) Groundwater monitoring confirming seasonal high groundwater levels in the area.
6) A drainage strategy plan indicating the location and sizing of SuDS features, with the base of any SuDS features located at least 1m above the seasonal high water table level.
7) Details demonstrating how any SuDS for this development would be managed throughout the lifespan of the development and who will be responsible for maintenance.

The approved scheme shall be implemented prior to the first occupation of the development and shall be maintained in the approved form for as long as the development remains on the site.
Reason: This is to prevent increased flood risk from surface water run-off. Relevant policy: NPPF (2024) Section 14 (Meeting the Challenge of Climate Change, Flooding and Coastal Change), Core Strategy policy CP1 and Managing Development Delivery Local Plan policies CC09 and CC10.

Proposed Surface Water System

The proposed drainage system has been designed utilising infiltration as the method of surface water disposal. Infiltration tests on the site have been carried out on site to locate suitable strata which is located at the northern end of the site.

Site investigation has been carried out on site. The results of the infiltration tests for the 3 test results indicating the slowest infiltration rate of 2.169×10^{-6} m/sec for the cellular infiltration tank.

Groundwater in BH2 with a depth of 4.8m BGL which equates to 64.72m AOD. The proposed soakaway base is located at 66.10m which is 1.38m above the recorded groundwater level.
BH1 installed to 10.5m had no groundwater and was revisited and the borehole had silted up to 4m BGL with no groundwater visible.

The infiltration rate has had a factor of safety of 2 applied.
The CV value is 0.90, and an additional 10% area is added to the 100-year storm event. The design has been simulated up to the 100-year+40 % climate change with no flooding occurring.
FEH Rainfall data has been used within the simulation model.

The roof drainage is discharged into a cellular soakaway located 5m from the building. Rainwater harvesting tank to recycle roof water for garden irrigation.

The cellular soakaways are located >5m from the buildings in accordance with current guidance, with a catchpit upstream to reduce the risk of silts entering the soakaway.

Maintenance schedules have been provided, and the owners of the properties will be responsible for maintaining all the drainage and SuDS elements on the site.

Overland flow paths for storm events exceeding the 100 year+40% climate change have been indicated on the drawings towards the north of the site towards the watercourse.

Conclusion

The surface water design follows current guidance and will provide a suitable method of disposal with no increased risk on or off-site. Drawings, Details, maintenance schedules and calculations are attached.

Regards

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Graham Taylor IEng MICE