



15.6 Lighting

Main house and apple Barn

The main house and the apple barn are located far from the vegetation corridor. Light spill from the main house will be mostly unchanged. The pavilion is designed to be used for its view, therefore limited use is proposed after dark. The glazing to the new roof pavilion will be set back from the edge of the pavilion and automatic blinds are proposed for all elements of glazing. The new openings on the south of the apple barn are minimal and face into a sunken courtyard which will contain light spill.

Building lighting close to the brook

Lighting within the new outbuildings would only likely be used after sunset, and the buildings are design for occasional use. Light spill onto the brook would therefore be temporary at most. Furthermore, when lights are switched on at night in the guest suites, it is more than likely that the curtains would be closed (although of course this is not guaranteed).

Light spill from the proposed buildings on the southern bank of the brook will illuminate localised areas of vegetation on some occasions when bats may be present, but this will be intermittent and occasional. The additional planting will mean that there is no net loss in the width of the commuting corridor, and bats will not therefore be prevented from commuting through the landscape. The ecological effect is therefore not significant beyond a localised area of the site.

Landscaping lighting

As detailed in the landscaping document, where garden lighting is used, it will be installed at a low level and be of a low (warm white) colour temperature. Uplighting will be avoided to prevent glare from disrupting nocturnal fliers.



15.7 Foul Drainage and Phosphates

A drainage survey has been carried out by Solum Surveying Ltd in July 20223 at the premises to determine the foul water arrangement and outfall from site. The following was concluded: -

1. There are no foul sewers within the site or local area
2. There are no treatment plants, septic tanks or cesspits on the premises
3. Foul water from the main house discharges to 2.no outfalls.
 - a. To the north of the property, the foul drain outfalls directly to the brook
 - b. To the east of the property the foul drainage discharges to the culvert from the overflow drain of the middle pond.

Proposed drainage and Phosphates

There to the requirement to protect this area from phosphate pollution, it is required to demonstrate that the proposed development has no adverse impact on the phosphate levels within the sub-catchment which it discharges into.

Due to the absence of foul sewers in the vicinity and ground conditions unsuitable for drainage fields; it is proposed to discharge foul water through a biological treatment plant and outfall treated water to Bradley Brook.

The proposed works will use a Graf One2Clean package treatment plant (PTP), which has a phosphate reduction efficiency of 80.2%. It is a biological treatment plant with no requirement for chemical dosing. The pool backwash will be dealt with separately. This will be collated in a cesspit, sized appropriately, and be emptied as and when required.

The proposed development will provide a betterment in total phosphorous load despite the increase in population with the introduction of a treatment plant. No further mitigation measures are required.

See full details of the calculations in the submitted Phosphate Mitigation Strategy produced by Hydrock.



HYDROCKS DRAINAGE LAYOUT PLAN



15.8 Flood risk and surface water

The site is located wholly within Flood Zone 1. The site is at 'medium' risk of flooding from an Ordinary Watercourse, the Bradley Brook, and at a 'medium' risk of groundwater flooding. The site is at 'low' or 'negligible' risk from all remaining sources.

A flood risk assessment has been produced by Hydrock and included in the submission. This report demonstrates that, in the respect to flood risk, the proposed development:

Is suitable in the location proposed if mitigation measures are considered;

- Will be adequately flood resistant and resilient;
- Will not place additional persons at risk of flooding, and will offer a safe means of access and egress;
- Will not increase flood risk elsewhere as a result of the proposed redevelopment through the loss of floodplain storage or impedance of flood flows; and
- Will put in place measures to ensure surface water is appropriately managed. As such, the application is concluded to meet flood risk requirements of the NPPF



16.0 Conclusion

The proposals are sensitive to the heritage asset, preserving and promoting the most important aspects of the main house and wider site, whilst removing previous harmful alterations.

The proposals take into account two rounds of pre-planning advice. The scheme has been developed in constant discourse with the Heritage Consultant and based on a sound understanding of the heritage asset.

Specialist designers have been employed and their recommendations incorporated into the scheme. Specialist reports by each have been included in the application.

- Structure
- Heritage
- Archaeology
- Highways
- Landscape
- Ecology and Biodiversity
- Flood risk
- Surface water/foul Drainage and Phosphates

The proposals add new contemporary sympathetic elements of high-quality design indicating a new stage of the building's life whilst securing the future ongoing use of the site as a private house of significance in the village.

We look forward to a swift positive determination of the application.

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Thank You

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