Consultation Response from KC, Lead Local Flood Authority		
2021/93006 Yew Tree Farm, The Village, Farnley Tyas, Huddersfield, HD4 6UQ		
Conversion of existing barn to form 8 dwellings, erection of 10 dwellings, demolition of redundant agricultural buildings and associated works (Listed Building within a Conservation Area)		
Date Responded: 31/08/2021	**Responding Officer: Martin Stephenson**	**Responding Ref: 0**

Drainage Summary

As reported in the submitted Bright Young Drainage Strategy Report (ref: 4011/DSR001 dated 30/0602021), the development site appears to currently drain surface water mostly via private drains into the public sewer network adjacent to the north and eastern sides of the site with some areas draining to soakaways within the southern side.

The proposed development is located within an area designated as suitable for infiltration into the underlying bed rock (Grenoside Sandstone, noted in the submitted Lythos Consulting GI Report as being a shallow Secondary Aquifer). It is noted that other recent developments in the area utilise soakaways for surface water disposal.

The soakage test results contained in the Drainage Strategy Report indicate good infiltration results in the eastern part of the site with poor results on the western side.

The Outline Drainage Strategy plan shown on page 12 of the Drainage Strategy Report indicates that the surface water from roof, access roads and hardstanding within the site is proposed to be drained to several soakaway pits spread mostly across the eastern part of the site where good infiltration rates were recorded by the soakage testing.

The LLFA **supports** the proposal to drain surface water to soakaways subject to confirmation of suitability following further infiltration testing to BRE Digest 365 requirements at the final locations during the detailed design stage and submission for LLFA comment of calculations determining soakaway sizing (based on no flooding off-site for the critical 1 in 100 year rainfall event plus 30% climate change allowance) where soakage through the base of the soakaways should be discounted to account for long term blinding with silts of the ground below the soakaway. Care should be taken to avoid the remobilisation into the ground water of any contaminants found within the soils overlaying the site.

If disposal of surface water to soakaways is found not be feasible over parts of the site and drainage of these areas to proposed soakaways elsewhere within the development is proven to be impractical, discharge to sewer at an attenuated rate on the basis of 30% betterment of current discharge rates for areas proven to drain to the sewer network may be considered by the LLFA subject to a minimum flow control diameter of 75mm (preferably 100mm).

Plans should be submitted at detailed design stage indicating the following:

- flood routing during exceedance events
- proposals for the temporary drainage of the site during construction activities prior to the commissioning of the permanent drainage.

It is noted that, at this stage, it is proposed that the surface water drainage will remain private and will not be offered for adoption by Yorkshire Water. It is therefore recommended by the LLFA that a

Section 106 Agreement is put in place to ensure the long term maintenance of the surface water drainage system is carried out. In addition, a **Maintenance Schedule** for the drainage system should be submitted to the LLFA for comment.

Kirklees Flood Management & Drainage can SUPPORT this application SUBJECT to appropriate recommended conditions as set out below provided the above comments are satisfactorily addressed in the detailed design.

Suggested Conditions

DR01 Drainage Details
Development shall not commence until a detailed design scheme detailing foul, surface water and land drainage, (including agreed discharge rates with the LLFA indirectly or directly to watercourse, attenuation for the critical 1 in 100 + 30% climate change rainfall event, attenuation construction details /design, plans and longitudinal sections, hydraulic calculations, phasing of drainage provision) has been submitted to and approved in writing by the Local Planning Authority. The scheme shall include a risk assessment and method statement, in accordance with CDM Regulations 2015, for access to and into the attenuation/soakaway structure, and an itinerary of maintenance tasks with schedules. No part of the development shall be occupied until such approved drainage scheme has been provided on the site to serve the development or each agreed phasing of the development and retained thereafter.

DR07 Overland Flow Routing
The development shall not commence until an assessment of the effects of 1 in 100 year storm events, with an additional allowance for climate change, blockage scenarios and exceedance events on drainage infrastructure and surface water run-off pre and post development between the development and the surrounding area (both upstream and downstream of the development), has been submitted to and approved in writing by the Local Planning Authority. No part of the development shall be brought into use (dwellings shall not be occupied) until the works comprising the approved scheme have been completed and such approved scheme shall be retained thereafter.

DR10 Construction Phase Surface Water Flood Risk and Pollution prevention plan.
Development shall not commence until a scheme, detailing temporary surface water drainage for the construction phase (after soil and vegetation/site strip) has been submitted to and approved in writing by the Local Planning Authority. The scheme shall detail:

- phasing of the development and phasing of temporary drainage provision.
- include methods of preventing silt, debris and contaminants entering existing drainage systems and watercourses and how flooding of adjacent land is prevented.
- the strategy shall include a plan showing the location of the attenuation storage and supporting calculations, which shall be based on the critical 1 in 2-year. It should be assumed that once the site has been stripped that the percentage run-off will be 100 %. The maximum allowable off-site discharge rate shall not exceed 2.5 litres per second, unless otherwise agreed with the LLFA.

The temporary works shall be implemented in accordance with the approved scheme and phasing. No phase of the development shall be commenced until the temporary works approved for that phase have been completed. The approved temporary drainage scheme shall be retained until the approved permanent surface water drainage system is in place and functioning in accordance with written notification to the Local Planning Authority.