

**Consultation Response from KC,
 Lead Local Flood Authority**
**2020/92067 former, Stile Common Infant & Nursery School, Plane Street, Newsome,
 Huddersfield, HD4 6DF**
Erection of 30 dwellings
**Date Responded: 5
 August 2020**
**Responding Officer:
 Aleksandra Tomczyk**
Responding Ref: 0
Summary
Kirklees Flood Management and Drainage, as the Lead Local Flood Authority (LLFA), OBJECT and require FURTHER INFORMATION is submitted on the following aspects:

- Flow routing on site;
- Surface water drainage design;
- Drainage Strategy document.

Kirklees LLFA also offer the below additional information and comments.
Kirklees Records

Site slopes from approximately 125mAOD in south west to approximately 112mAOD in north east.

There are no watercourses on site. The closest watercourse runs along Newsome Road (approximately 130m east) and is culverted along its entire length. It ultimately discharges into River Colne further north.

There is a network of sewers in the area, including a combined sewer along Plane Street (adjacent to northern site boundary).

 The proposed development site is located within Flood Zone 1, according to the Environment Agency's *Flood map for planning*. The site is also subject to very low surface water flood risk, according to the Environment Agency's *Long term flood risk map*.

This site appears to not be suitable for infiltration features.

Additional Comments

The applicant proposes to build 30 dwellings in the area of Newsome, Huddersfield. The development site used to be a school, but the building has been demolished, following school's closure.

The applicant submitted the following relevant documents:

- *Design and Access Statement*, prepared by Watson Batty Architects;
- *Foul and Surface Water Drainage Strategy*, prepared by ARP;
- *Proposed Drainage Strategy* drawing, prepared by ARP, number 2375/02/05, dated 29.06.20.

Flood Risk Assessment and Flow Routing

As this site is classed as a major development, the LLFA are a statutory consultee. While a site-specific Flood Risk Assessment is not required the applicant must consider all sources of potential flood risk and ensure they are managed as part of the site design.

Kirklees LLFA require an analysis of flow routing for the site to be provided, including any inflows from offsite and any flows originating on site, such as drainage exceedance or gully bypass. Short, intense storms may bypass road gullies, particularly on steep ground. The designed flow route should avoid property curtilages where reasonably practicable, utilising roads and open spaces.

 Flow routing from attenuation should also be considered, in case of an exceedance event. The applicant should use *Designing for Exceedance* guidance to inform this design and safe management of any exceedance volumes.

Surface Water Drainage Design

The applicant submitted the *Foul and Surface Water Drainage Strategy* document as part of this planning application. However, the document submitted appears to have generated an error, as displayed in the screen grabs below. Kirklees LLFA request they are reconsulted when this document is resubmitted.



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The applicant also submitted the *Proposed Drainage Strategy* drawing. The LLFA reviewed this drawing and make the following comments:

- The applicant proposes to discharge surface water at 5l/s. Discharge rate from all sites should be at pre-development greenfield equivalent run off rates. This rate should be calculated for only the impermeable/positively drained areas, not for the entire site. For brownfield sites, if justification can be made for a higher rate, it may be considered. However, the development must provide a minimum 30% improved situation on existing discharge rate for all events and provide evidence as to why the proposed discharge is the lowest feasible. The applicant must provide relevant calculations for the proposed discharge rate for review and approval by Kirklees LLFA.
- The LLFA have **no objection in principle** to the proposed discharge point – an existing culvert along Newsome Road, however, means of connection need to be confirmed and the system should be surveyed to ensure it is in a suitable condition to receive formalised flows.
- The applicant should confirm the proposed sizing of the attenuation tank – the drawing submitted only provides the area (111m²) but not the depth, and therefore volume of the structure.

- It appears that currently there is a retaining wall in the area where the attenuation tank is proposed to be located. The applicant should confirm whether this structure is to be retained on site. Retaining structures close to attenuation tanks must be carefully considered as some structures may generate lateral loading to soils when full.
- No microdrainage outputs have been submitted. Kirklees LLFA require the applicant to provide MicroDrainage outputs to satisfy the modern standards of design:
 - o No surcharging above pipe soffit for critical 1 in 1 year storm event;
 - o No surface water flooding for critical 1 in 30 year storm event;
 - o No surface water flooding that may pose a risk to users of the proposed development or area off site for critical 1 in 100 year event + climate change;
 - o A pipe and manhole schedule for the MicroDrainage design including schematic and contributing area details;
 - o Simulations provided from 15 minute to 24 hour storm duration; and
 - o Simulations provided for both summer and winter profiles.

The LLFA understand that some of this information may be included in the *Foul and Surface Water Drainage Strategy* document but that this document appears to have corrupted. The applicant should provide this document in appropriate format for a review.

Informative

Section 38 road adoption by Kirklees as a Highway Authority cannot take place unless sewerage located under the carriage way is adopted first. Therefore, all structures under an adoptable carriageway would need to meet the standards as set out by the statutory undertaker, including but not limited to *Design & Construction Guidance** and Yorkshire Water local guidance and any subsequent updates.

As part of a Section 106 agreement the Council are required to ensure the site is managed in a safe and suitable way up until adoption by a regulatory body. This requirement should also apply to drainage on the site, during the build out a management and maintenance plan including responsible management company must be secured. This should be enforced until adoption **and continued for the life of the development if adoption fails**. Adoption can fail at any step in the development process from concept design to site inspection post construction.

**Design & Construction Guidance has replaced 'Sewers for Adoption' giving provision for Sewerage Undertaker to adopt SuDS features and facilities.*