

**From:** Jon Dunbavin  
**Sent:** 05 May 2022 09:33  
**To:** Victor Grayson <Victor.Grayson@kirklees.gov.uk>  
**Subject:** Bradley Villa

Victor morning hope you are well

Further to the submission of our proposed scheme, Revision J, please see attached updated Tree Assessment Plans and updated Energy Report.

With regards to the recent LLFA consultee comments please see below comments in Red providing further clarity to the points raised.

### **Flood Routing**

- The flood risk assessment should examine flood routing before and post development, identifying high and low spots and ensuring that properties do not find themselves in low spots or linear pathways or basins in case blockage scenarios and exceedance events produce overland flow.  
Please refer to drawing references 4607-16-06-104 - Drainage Blockage Route - Sheet 1 and 4607-16-06-905 - Existing Overland Flow Routes
- The northern boundary of the development area represents a known surface water flood route. In fact, this is the start of a valley that further downstream in land to the north east by Shepherd's Thorn Farm, an open watercourse is present. We believe it prudent to perform excavation via slip trenches to identify whether culverts or land drains are present along this route within the site.  
Noted.
- It is recognised that for part, the lowest areas create a flow route that is outside areas covered by curtilage and private driveway. However, this is not the case in full. Plots 1,2,3,6,8 and 21 appear to be within an exceedance route that should avoid curtilage. An amendment to layout or an adjustment to cut and fill levels may be required to ensure curtilage is avoided.  
Where possible, all overland flows are directed away from dwellings. Where this is not possible, an overland flow route will be provided through the property boundary, ensuring the finished floor levels of the plot will not be breached either by directing flows to the rear of the garden or maintaining the 150mm step between finished floor level and proposed exiting ground.
- Other areas that need clarification include, but may not be limited to, plots 233,235, 172,160-167, 155-158. A full routing plan with road contours, back of kerb levels, driveway and finished floor levels is required. A more detailed scale plan would be useful where plots at risk have been identified.  
Drawing 4607-16-06-104 - Drainage Blockage Route - Sheet 1 identifies proposed finished floor levels and proposed road levels. This will assist with identifying the more 'at risk' plots. It is worth noting that the surface water system has been designed to contain all rainfall events, up to and including the 1 in 100 year plus 30% climate change storm, below ground, therefore it will only be on the extremely rare occasion of a catastrophic blockage to the drainage networks that would cause the overland flow route to be triggered.

- Cut off ditches along the perimeter to protect existing houses should be considered and analysed where appropriate.

Noted.

### **Surface Water Disposal**

- We can confirm that a site limit of 22l/s has been agreed to discharge into tributaries of Bradley Park Dike to the southern side of the M62.

Noted

- We do not recommend the use of cellular crate storage (as per para 6.25) on housing developments as they are currently not adopted by Yorkshire Water and the design makes inspection in a maintenance and management plan difficult in comparison to alternatives.

Noted, a precast concrete attenuation tank is being proposed to compliment a detention basin which will accommodate flows for the larger rainfall events

- Kirklees has no objection to a detention basin in principle. However, in the interests of the Water Framework Directive and improving water quality, we envisage that space used in land owned to the north is utilised to its full strength for SUDS treatment, e.g., swales, wetland etc. in addition to a detention basin. This must also be analysed. Please note that Yorkshire Water can now adopt some SUDS features.

The land to the north of the main development site is not in the ownership of Redrow Homes. With this in mind the current drainage proposals have been developed with the landlord of the retained land whom still wishes to farm the area to the north and is concerned with any drainage features that may cut parts of the land off. It is for this reason why a pipe system has been proposed.

- Any land drainage must be carried in a separate pipe.

Noted

### **Construction Phase Drainage**

- A site management plan will be required to manage pollution and flood risk. This should be split up into different phases of development, and a risk assessment carried out for each, e.g., third party land flooding including where existing properties are located. A method statement should be produced including an itinerary and schedule of tasks both on site and in adjacent areas that could be affected by construction. Back up plans should be noted in case provisional systems are overwhelmed. We suggest a 5-year storage capacity for this purpose. Also suggest protecting gullies and suds once constructed. A condition would be appropriate in this circumstance.

Noted

All soakaways should be cleaned thoroughly before the developer vacates site.

No soakaways have been proposed.

### **Section 38**

- Pipework above 900mm is generally not accepted where section 38 is involved and with direct communication with our structures department. This should not be a problem on this site.

Noted, no pipe over 900mm have been proposed underneath adoptable highway.

**Section 106**

- The LPA is obligated to ensure maintenance and management of SUDS for the lifetime of the site with a section 106 undertaking. Kirklees' procedure is to ensure a management company is set up to carry out such duties until such a time as the relevant parts of the infrastructure are adopted by Yorkshire Water and Kirklees Highways respectively. Itineraries and schedules can be submitted at a later date and the text of the section 106 should allow for this.

The basin will be offered for adoption to Yorkshire Water and until the time that is becomes vested, the SUDS features will be managed and maintained by Redrow Homes

If you require any further information just let me know.

Regards

Jonathan Dunbavin  
Managing Director  
ID Planning