

PLANNING MEMO

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TO: CHRISTIE BURNS
PLANNING OFFICER

DATE: 13TH APRIL 2023

APPLICATION: PLANNING APPLICATION 4/23/2076/001

DEVELOPMENT: OUTLINE APPLICATION FOR UP TO 65 DWELLINGS WITH DETAILS OF PROPOSED ACCESS& & ALL OTHER MATTERS RESERVED

ADDRESS: LAND OF DALZELL STREET, MOOR ROW, EGREMONT

FLOOD MAPPING

The Flood Map for Planning shows that most of the proposed development site lies in Flood Zone 1, with the north eastern most part falling in Flood Zones 2 and 3.

The Flood Risk for Surface Water Map shows most of the proposed development site lies in an area at a very low risk of surface water flooding. Parts of the former railway yard lie in areas of low and medium risk and the north eastern most part of the site has a high risk.

COMMENTS ON FLOOD RISK ASSESSMENT & DRAINAGE STRATEGY

Main points made:

[7.3] The site lies almost entirely in Flood Zone 1. A small area adjacent to the steep sloping banks of the River Keekle is located in Flood Zone 3, however, no development is anticipated in this area.

[8.2] Levels across the site typical fall from south to north from around 75m AOD to 74m AOD to 71m AOD to 70.5m AOD, with the exception of the land adjacent to the River Keekle, with a level of around 60m AOD.

[8.4] It is assumed that within the site there will be a series of historic land drainage features, that are assumed to discharge either into the ditch to the north of the site or directly into the River Keekle.

[8.5] United Utilities records show the presence of a 375mm diameter combined sewer to south of the site.

[8.6] Poor levels of permeability, combined with groundwater ingress would impact on the efficiency of any soakaways and therefore an alternative method of surface water disposal is recommended.

[9.6] The majority of the site is at a very low risk of surface water flooding, with a band of low to medium probability round the former goods yard, which appears to be attributed to hardstanding in this area. It is considered that careful re-profiling of levels in this area combined with a positive drainage system will eliminate the existing issue.

[9.6] Any development resulting in an increase in impermeable areas could cause additional runoff, so it is proposed to incorporate SUDS to mitigate this.

[9.7] Groundwater ingress was encountered in some of the trial pits conducted as part of the ground investigations. It is likely that groundwater levels will fluctuate throughout the year, but given the sloping topography of the site, the site is unlikely to be significantly affected by groundwater flooding.

[10.1] The drainage strategy is based on an assumed impermeable area of 60% of the site.

[10.3] Without attenuation, the proposed development would significantly increase the runoff rate from the site.

[10.4.1] A climate change allowance of 50% has been used based on an anticipated 100 year design life of the proposed development.

[10.4.2] An urban creep figure of 105 of plot areas has been used.

[10.5.2] It is proposed that the development will be positively drained, with controlled discharge into the existing watercourse / ditch in close proximity to the northern boundary of the site. As there appears to be surface water flooding issues associated with this ditch, it is recommended that investigations are undertaken.

[10.5.3] Detention basins are the preferred option for SUDS on site, as there is sufficient space on site. Geocellular attenuation tanks and oversized pipes could also be used.

[10.6] Attenuation volumes have been estimated for the site and it is proposed that all impermeable surface will be drained by gravity to a detention basin located in a natural low point **outside the planning boundary**, to allow direct outfall to an existing drainage ditch.

[10.8] Proposals would see the restricted runoff from site being limited to 23.1l/s compared to the currently uncontrolled rate for the site of 48.0l/s.

[10.9] Design considerations take into account exceedance events, blockages and failures in the surface water drainage system and this should be extended to plot layouts and finished floor levels.

[10.10] Water quality has been considered and the outline drainage design will provide a suitable level of treatment as per SuDS manual.

[10.11] All drainage will be constructed to adoptable standards

[11] It is proposed that foul water from the site shall be connected to the existing 375mm diameter combined sewer to the south of the cycle track and this has been approved in principle by United Utilities.

[11] Due to site topography, it is anticipated that some plots will require foul flows to be pumped, which could be by either a pumping station or individual private pumping chambers, depending upon the number of dwellings requiring this function.

GENERAL COMMENTS

Although, from mapping not all the site is at a low risk of flooding, the section in Flood Zones 2 and 3, due to the River Keekle, will not be developed. Where the risk is from surface water this can be designed out through the detailed site layout using the recommendations within the Flood Risk Assessment and Drainage Strategy.

SUGGESTED CONDITIONS

The Flood Risk Assessment and Drainage Strategy is a very good document and the site layout and drainage design should follow the recommendations contained within the document. Therefore, I would suggest a Condition to be included to reflect that.

SUMMARY

Provided the recommendations within the Flood Risk Assessment and Drainage Strategy are followed, I would have no objection to the proposed development from a flood risk and drainage perspective.
