

Land at Keresley

Opportunities & Constraints

There are a number of opportunities and constraints on the site, which are illustrated here.

Flood Risk and Drainage

The site is in Flood Zone 1, with a very low risk of flooding, making it sequentially acceptable for a residential development. The Hall Brook watercourse flows through the centre of the site from north to south and the flood extents from this watercourse are generally contained within the channel and this area will be maintained as open space. A 5m easement will be adopted from the top of the bank, to allow for maintenance of Hall Brook. A detailed flood risk assessment will accompany the planning application to assess the flood risk from all sources and to ensure that mitigation is put in place that minimises flood risk to and from the development.

Surface water runoff from the site will be managed by a sustainable drainage system (SuDS), utilising a series of cascading ponds and swales to store surface water on-site and protect the development from flooding in a severe storm event (1 in 100 years plus 40% climate change). Discharges rates to the Hall Brook will be below existing greenfield runoff rates, providing betterment over existing conditions which has potential to reduce flood risk downstream. The SuDS will also provide suitable water quality treatment for surface water runoff and could provide ecological benefits.



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| Potential drainage basin | Tamworth Road | Brook |
| Retained trees and hedgerows | Fivefield Road | Potential swale |
| Potential access - all modes | Public right of way | Site boundary |
| Potential access - pedestrian and cycle | Potential on-site bus route | Ancient woodland offset |
| General topography fall | Foul water sewer easement | Key frontage to wider area |
| Proposed link road | Gas main easement | Edge of existing development |

Noise

Noise assessment has been undertaken to measure and assess sound levels at the proposed development and the main source is road traffic from Fivefield Road and Tamworth Road.

The site layout has therefore been carefully designed, so that gardens in areas near to roads will be screened by the dwellings, which will result in acceptable sound levels in addition to suitably attenuated glazing and ventilation systems, which will be provided where required.

With the identified mitigation strategy, sound levels can be readily attenuated to achieve the required criteria and ensure a suitable living environment.

Geo-environmental

Geological mapping indicates that the site is underlain by the Keresley Formation (mudstone and sandstone) with a covering of widespread topsoil and subsoil. Limited and localised sources of contamination have been identified and the site is considered to pose a low to moderate risk to human health and controlled waters receptors.

Utilities

Two High Pressure gas pipelines operated by National Grid cross the site, in addition to a 33kV overhead line owned and operated by Western Power Distribution. Severn Trent Water own and operate a 150mm public foul sewer which crosses the northwestern parcel of the site. The Masterplan has been designed to accommodate mandatory easements and standoffs for each apparatus, by including public open space areas and avoiding any permanent structures such as buildings.



Above: SuDS and green corridor, for illustrative purposes only