Flood Risk Assessment – The Dell Filling Station: Ref SMD/2018/0305

Description of development site -

The proposed development site address is The Dell Filling Station, Star Bank, Oakamoor, ST103DH. The current site is an unused concrete building with with an asbestos roof, approximately 7sq/m of floor space (surface area) which historically was used as a kiosk for small old petrol station, but has not been used in over 30 years. To the right (south) of this building is a further 5 sq/m of flat concrete ground where the pumps would have sat. Behind the building and all the way to the right (south) sits Oakamoors Lime Kilns (Grade 2 listed). There is a main road with a pedestrian pavement which runs adjacent to the development site and an access route which runs in front of the building.



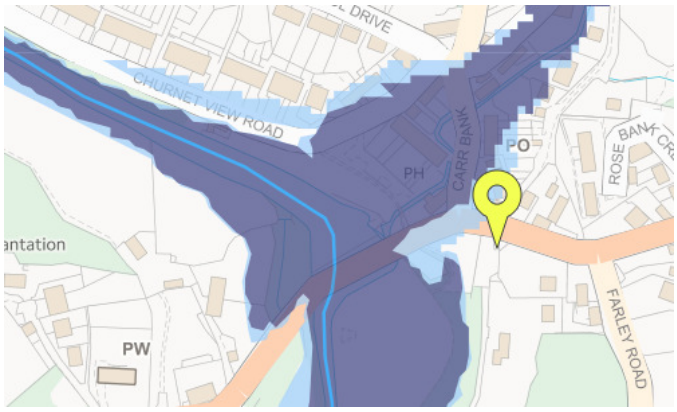
The proposal is to demolish the existing building as refurbishing it or extending the existing building is uneconomical. I will then develop the new site over the footprint of the existing site, and including an extension to the south where the concrete flooring was where the pumps stood to increase floor space. The planned proposal will be used as a cafe / shop for the tourists and villagers as there is currently no shops in Oakamoor, only one pub. The exact location of the proposed development can be seen on the image above with the coordinates shown at the bottom of the image. Although when the building was last used it was used for retail purposes, I will have to declare a change of use as I will now be selling food and drink as opposed to oil products.

The current site is situated in flood zone 1. It falls under the classification of “less vulnerable” as it will be a “building used for shops”.

The lifetime of the proposed development is likely to be 20-50 years. The development completion time will be within 2 years of a planning being granted.

I do no believe that the risk of flooding of this proposal will be affected by climate change.

The source of the flood risk to the site is the River Churnet which is 60 meters away from the proposed development at its closest point. (see flood map provided below).



The possibility of the site flooding is extremely low. The ground level of where the proposal is, is 2 meters higher than the closest zone 3 area on the map. Where the development is positioned is at the beginning of the incline of Star Bank raising it above that of the surrounding areas. It is also at the same level as the property to the south of the proposal which is situated much closed to a level 3 flood zone.

I am unaware of any other sources of flooding which may affect the site.

The proposal has a 1 in 1000 chance of annual flooding In terms of design flood, preventative measures have been taken in the design of the building by ensuring that is it elevated from ground level for initial protection from flood water and prevention of a breach in to the building. The proposed elevation is 100mm above the current ground level of the development site. Due to the small size and nature of the use of the building, should the interior of the building flood, the structure will not be effected and repairs would be relatively simple. Preventative methods will be taken when considering the layout of the interior of the building to ensure adequate drainage in the case of flooding and minimal damage to the interior.

All planned developments for this site will not have an effect on surrounding buildings or sites.

At present there are no surface water run off management systems. Although the building has a roof, the buildings guttering is so heavily weathered and worn that it serves no purpose, and so any run off water essentially soaks away. The proposed development will use guttering to manage run off water which will help reduce the risk of flooding on the proposed development area. The site has a grid and drainage network which will be used for the disposal of waste and run off rain water. This will in turn reduce the impact of run off water towards developments elsewhere as the disposal is being managed responsibly. The new building will also have a large surface area roof meaning that it will catch more run off water then before, again providing a positive outcome for both the proposed site and surrounding developments.

Surface water drainage systems will be appropriately maintained through routine inspection, replacement and where required repairs.

There will be no occupants of the proposed development.

I have not completed an exception test due to the proposed development not falling in a flood zone 2 or 3.

Regardless of mitigation there will always be an element of residual risk. I plan to monitor and manage the risk of flooding at the planned proposal for the lifetime of the development unless delegated to another member of the team.

Flood Risk Assessment undertaken by Kieran Carnwell on the 04/06/2018.