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Our ref: AN/21/36  
Your ref:

11<sup>th</sup> April 2021

To Whom It May Concern,

**Re: Flood Risk Statement 169 Brooklands Road, Sale, M33 3PD**

The following assessment reviews the flood risk at 169 Brookland Road, Sale, M33 3PD with regards to a two storey (side and rear) extensions and general refurbishment of the existing property.

The development is considered a Minor Development in that the development is classified as a householder development of a physical extension to the existing dwelling without providing a new unit.

The site is located in Flood Zone 3 based on the potential for flooding from Baguley Brook to the rear of the property shown in Photo 1. The Product 4 data was requested however the data supplied by the Environment Agency appears to be for 161 Brooklands Road. The data supplied is still useful given the proximity of the site.



Photo 1: Baguley Brook to the rear of the property.

Five node points have been supplied for the brook with node point 2 being the closest to the property. The flood level for node point 2 is an undefended level of 26.35 m AOD at 1:1000 year and 26.32m AOD at 1:100 year. The 1m DTM LiDAR levels across the garden area range from 26.2 to 26.3m AOD. The centre of the lawn reads a level of 26.29m AOD as shown in Figure 1.

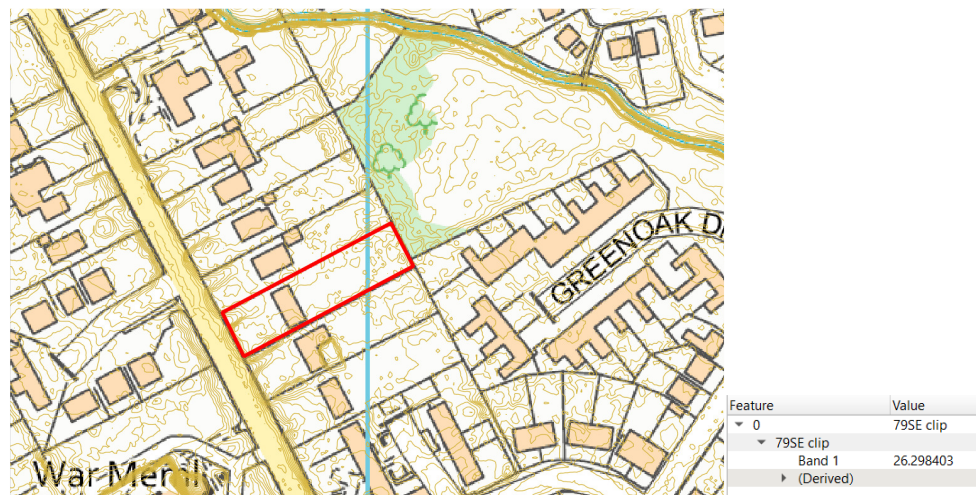


Figure 1: 10cm contours created from 1m DTM LiDAR with elevation (m AOD) shown for the centre of the garden.

While this is below the flood risk level the floor level of the property is approximately 100mm above the level of the garden (See Photo 2) giving a floor level in the region of 26.39m AOD. There is no proposed reduction to the existing floor level.



Photo 2: Patio to the rear of the property in relation to the floor level of the property.

The surface water drainage of the existing property is presumed to be to either to Baguley Brook to the rear of the property or to the drainage in Brookland Road, presumed to be combined. The small increase in roof area can be accommodated in roof water butts fitted to

downspouts to reduce the flow to either the watercourse or sewer. Larger structures such as detention ponds or soakaways would not be suitable for the area given the Tree Preservation Order across the site and surrounding area. These structures have the potential to be damaged by root structures and in some cases may rot roots in drought tolerant species.

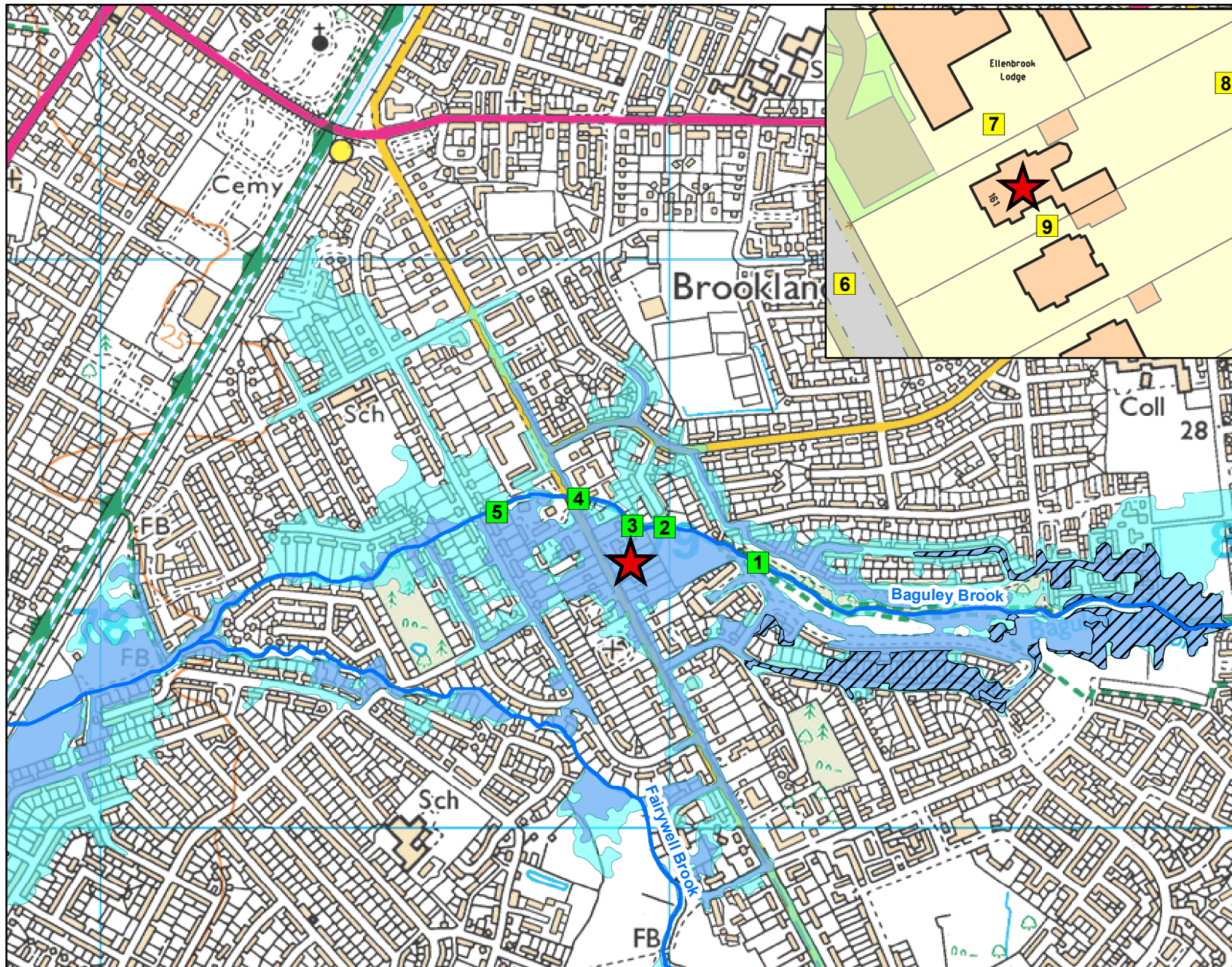
The proposed development is not at any increased risk of flooding than the existing development and will only minimally increase the run off from the property which can be managed using none intrusive methods such as water butts.

Yours sincerely

Alison Nicholls  
Senior Consultant

Included: Product 4

# Detailed Flood Map centred on Brooklands Road, Sale, M33 3PD. Created on 06/04/2021 [GMMC211901SW]



1:10,001



## Legend

- Site Location
- Model Measurements
- 2D Measurements
- Main River
- Areas benefiting
- Flood Zone 3
- Flood Zone 2

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|               |                             |         |          |                               | Undefended              |                                              |                            | Defended                |
|---------------|-----------------------------|---------|----------|-------------------------------|-------------------------|----------------------------------------------|----------------------------|-------------------------|
| Map Reference | Model Node Reference        | Easting | Northing | Data                          | 1 % AEP (1 in 100 year) | 1 % AEP (1 in 100 year) + 20% Increase Flow* | 0.1 % AEP (1 in 1000 year) | 1 % AEP (1 in 100 year) |
| 1             | ea013_Model_09_BAGU01_00079 | 379158  | 390465   | Modelled Water Level (m aodN) | 26.48                   | 26.49                                        | 26.50                      | 26.49                   |
|               |                             |         |          | Modelled Flow (cumecs)        | 3.73                    | 3.76                                         | 3.80                       | 3.93                    |
| 2             | ea013_Model_09_BAGU01_00083 | 378987  | 390528   | Modelled Water Level (m aodN) | 26.31                   | 26.32                                        | 26.35                      | 26.32                   |
|               |                             |         |          | Modelled Flow (cumecs)        | 2.82                    | 2.82                                         | 2.82                       | 2.88                    |
| 3             | ea013_Model_09_BAGU01_00087 | 378932  | 390532   | Modelled Water Level (m aodN) | 26.25                   | 26.28                                        | 26.31                      | 26.26                   |
|               |                             |         |          | Modelled Flow (cumecs)        | 2.68                    | 2.73                                         | 2.72                       | 2.72                    |
| 4             | ea013_Model_09_BAGU01_00095 | 378843  | 390576   | Modelled Water Level (m aodN) | 26.05                   | 26.14                                        | 26.18                      | 26.07                   |
|               |                             |         |          | Modelled Flow (cumecs)        | 2.89                    | 2.93                                         | 2.94                       | 2.92                    |
| 5             | ea013_Model_09_BAGU01_00102 | 378694  | 390560   | Modelled Water Level (m aodN) | 25.76                   | 25.94                                        | 26.01                      | 25.74                   |
|               |                             |         |          | Modelled Flow (cumecs)        | 2.89                    | 3.34                                         | 3.51                       | 2.93                    |
| 6             | 2D measure                  | 378899  | 390451   | Modelled Water Level (m aodN) | 26.10                   | 26.15                                        | 26.19                      | 26.08                   |
| 7             | 2D measure                  | 378928  | 390481   | Modelled Water Level (m aodN) | 26.26                   | 26.27                                        | 26.28                      | 26.26                   |
| 8             | 2D measure                  | 378972  | 390489   | Modelled Water Level (m aodN) | 26.30                   | 26.31                                        | 26.33                      | 26.31                   |
| 9             | 2D measure                  | 378983  | 390462   | Modelled Water Level (m aodN) | 26.23                   | 26.24                                        | 26.26                      | 26.24                   |

Model data taken from Altrincham 2009

AEP - Annual Exceedence Probability

m aodN - metres above ordnance datum Newlyn

cumecs - cubic metres per second

Notes:

\*Climate Change Scenario - We only hold climate change measurements based on the previous climate change guidance (20% increase in flow). The new climate change guidance is available at <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>. The location of the site and the type (vulnerability) of development determine the climate change allowances to consider in any flood risk assessment.