

Flood Risk Assessment

Extension to 19 Barrett Street, Oxford OX2 0AT



January 2021

Document Issue

Rev.	Date	Purpose	To
1 st Issue	Jan 2021	Planning Application	Oxford City Council

1.0 Development site and location

The address of the site is 19 Barrett Street, Oxford, OX1 0AT, an existing terraced house. A location plan has been submitted as part of the planning application (BAR19 001).

Site vulnerability classification of the proposed development: More vulnerable.
Lifetime of the proposed development = 100 years + (residential property)

The site is in Flood Zone 2 for flooding from rivers.

2.0 Development proposals

The ground floor proposal is for a side-return and rear extension to the existing dwelling, to provide additional living space. For details refer to the planning application documents.

3.0 Site specific flood risk

Environment Agency maximum modelled flood level: 1% AEP + 35% = 57.33m AOD.
(From modelled flood levels for the closest most appropriate model grid cells for the site
Ref: *Product 4 (Detailed flood risk) for site at Barrett Street, Oxford OX2 0AT. Ref: THM198376*).

In area of extension average existing ground level = 57.21m (from topographic survey)

Flood depth at site = 57.33m - 57.21m = 0.12 m

4.0 Proposed floor levels

Existing ground floor level = 57.27m

Proposed ground floor level in extension = 57.27m (to match existing)

5.0 Flood resistance / resilience measures

Site flood depth = 0.12m

Design water depth is less than 0.3m. Therefore the approach to flood resilient design and construction is to attempt to keep water out.

Ref: *Improving the Flood Performance of New Buildings: Flood Resilient Construction. May 2007, Department for Communities and Local Government, London*

Proposed flood resistance measures:

Materials with low permeability recommended to be used to at least +0.3m

6.0 Flood water storage

- It is not feasible to build the floor of the extension at a higher level to provide water storage because it needs to be set level with the existing ground floor.
- Storage under the new floor construction is not feasible because the void would be below existing ground level.
- Flood water storage is therefore not possible for this extension due to the floor levels of the existing house and the existing ground levels.