## MONKHOUSE ARCHITECT.

Flood Risk Assessment (FRA) 22 Vicarage Road, Oxford, OX1 4RB

Demolition of existing single storey rear extension, erection of proposed part-single, part two-storey rear extension and extension to the loft including dormer.

The existing and proposed development site sits within Flood Zone 3 (High Risk).

The ground floor is set 400mm above the pavement. The road height is between 55.50m (New Hinksey Primary School) and 55.70m (Junction with Gordon Street). Therefore, the finished floor level is approx. 56.10m.

The 100-year (mAOD) for the nearest locations are as follows:

A423 West (Hinksey Ditch) – 55.64 A423 East (Hinksey Stream) – 55.60 Thames d/s Hinksey Stream – 55.09

|    |                            | 100-year (mAOD) |         |       |
|----|----------------------------|-----------------|---------|-------|
| Re | Location                   | 2015-16         | 2017-18 | Diff  |
| 20 | Thames Iffley Lock u/s     | 55.73           | 55.74   | 0.01  |
| 21 | A423 West (Hinksey Ditch)  | 55.61           | 55.64   | 0.03  |
| 22 | A423 East (Hinksey Stream) | 55.71           | 55.60   | -0.11 |
| 23 | Mundays Bridge             | 55.44           | 55.43   | -0.01 |
| 24 | End of Weirs Mill Stream   | 55.40           | 55.33   | -0.07 |
| 25 | Thames d/s Hinksey Stream  | 55.09           | 55.09   | 0.00  |
| 26 | Thames Binsey/Port Meadow  | 57.87           | 57.85   | -0.02 |

Table 37: Peak water levels and comparison

EA – Oxford Baseline Hydraulic Modelling Report

The finished floor levels of the proposed rear extension are to be set no lower than that of the main house's ground floor as per the EA Standing Advice. The existing single storey element is currently set approximately 140mm lower than the main house's ground floor, therefore the proposal will improve on the current situation.

The building currently has a footprint of  $58.3m^2$  the proposal will result in an increase of  $21.7m^2$  resulting in a footprint of  $80.0m^2$ .

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The existing property has a patio between the single storey element and the boundary, which is constructed in impermeable concrete. The proposed building will be cited over this patio. Therefore, the net gain for the footprint of the building is 0.0m<sup>2</sup> and there will be negligible impact on the generation of runoff.

All sleeping accommodation is to be on the first floor and above.

The extension and the internal alterations will be constructed in a flood resilient manner, utilising materials with low permeability to the DPC or at least 0.3m. Provide access to all spaces to permit drying and cleaning.

If the client isn't already signed up to, they should sign up to the EA Flood Warning System.



