

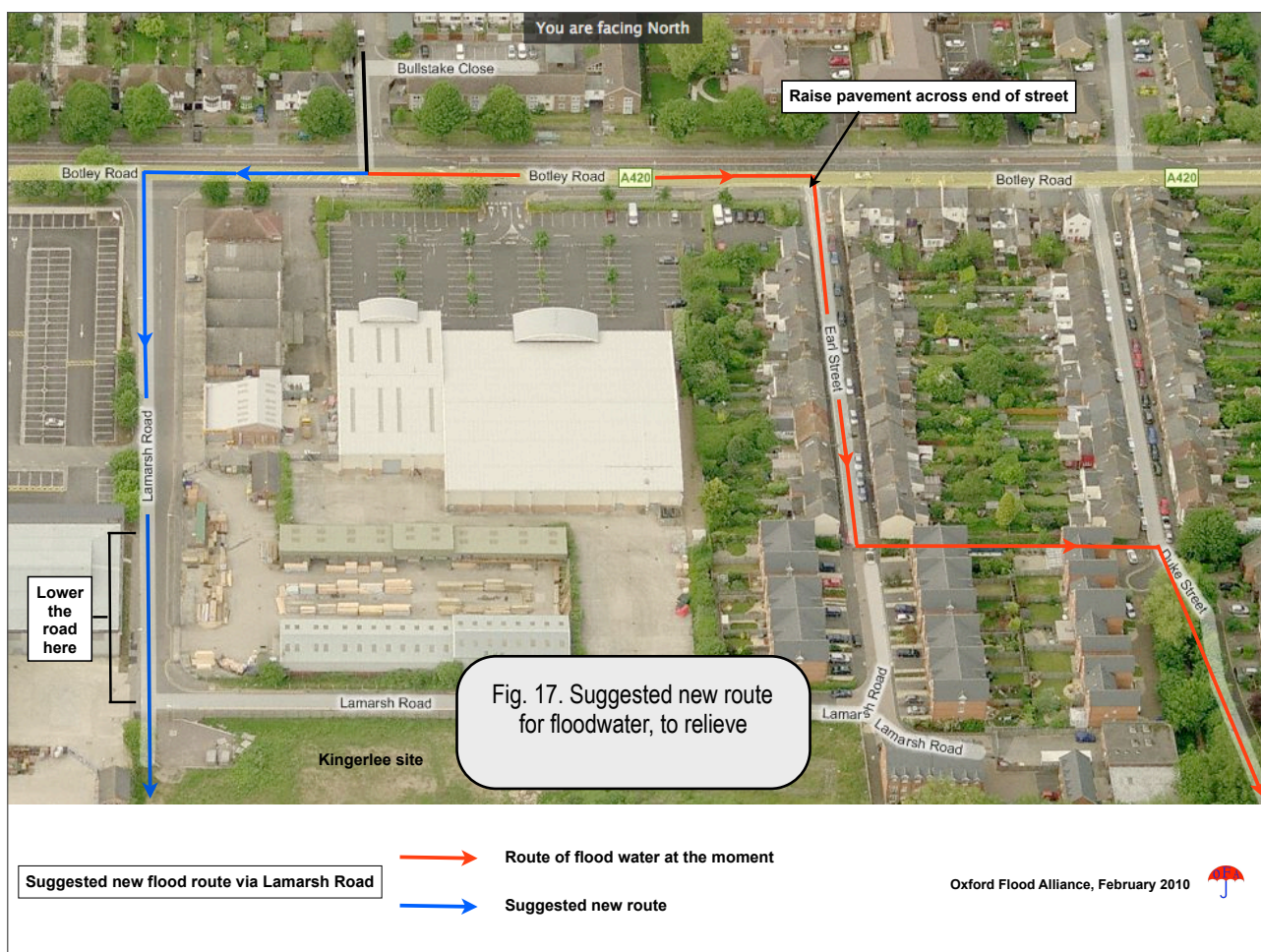
Earl Street, Duke Street and Lamarsh Road: a proposed alternative route for floodwater

Earl and Duke Streets and Lamarsh Road are side roads off the south side of the Botley Road (Fig. 17).

Authorities: Oxfordshire County Council; Oxford City Council; EA; Thames Water; Kingierlee Ltd.

In recent floods, floodwater overtopping the Botley Road at its low point near Bullstake Close turned east and flowed down Earl Street to the meadows beyond. The adjacent Earl and Duke Streets flooded in 2000 (c. 20 houses), 2003 (c. 30) and 2007 (all, 60). While groundwater contributes to this recurrent flooding, having a river flowing down Earl Street is a disaster which makes severe flooding inevitable. A video of this river at <http://www.youtube.com/watch?v=DjklOp09yQE&feature=related> shows, much better than words can, the magnitude of the problem. OFA has worked with several authorities, via the Botley Road Working Party, on a plan to remedy the situation by routing water down Lamarsh Road instead.

Measures to reduce groundwater and water from overloaded drains in Earl and Duke Streets have already been carried out by the City and Thames Water. If the opportunity is not seized to solve the 'fluvial' component of the flooding too these efforts may be to a great degree wasted.



Suggestion

- The idea is to install a pavement/road hump at the north end of Earl Street and alter the gradients in Lamarsh Road (Fig. 17). Water would then turn west along the Botley Road and run down Lamarsh Road. If the far end of Lamarsh Road (which at present runs 'uphill') were lowered then water would then continue to flow through the site at the end, owned by Kingerlee and scheduled for development.

We understand that Kingerlee have been receptive to the suggestion that an overland flood route (or culvert(s)) be put in place through their site during development, for which we are very grateful. Lamarsh Road does not contain residential property, but there are shops. These are set back and/or raised above the road level, but may require additional protection, perhaps with a demountable barrier.

What is required to do the job?

It is not yet agreed what the best technical choice for achieving a flood route with the 'necessary' conveyance is - whether overground, or via underground culvert(s), in either case starting from about the low point of Lamarsh Road and leading south to the flood meadow beyond the southern boundary of Kingerlee's site.

OFA believes that overground conveyance has every advantage. This would require lowering of the far end of Lamarsh Road and for Kingerlee to start their entrance road at that new level. There would then be a downhill slope through Kingerlee's site.

Oxfordshire County Council, as Highways Authority, have proposed a single 0.4 m diameter culvert (pipe). Having seen the 'river' that pours down Earl Street it seems to us extremely unlikely that one 0.4 m pipe will be anything like sufficient. The size of the pipe and that it is set below the surface are relevant factors. Preliminary calculations support our view. Following a recent site multi-agency meeting called by OFA, the Environment Agency has agreed to provide data to Oxford City engineers, who will use it to calculate with more confidence the approximate flows across the Botley Road in floods such as those in recent years. While such calculations will still inevitably be approximate they should be adequate to allow a rational decision as to what would work best, and its cost compared to alternatives. We feel strongly that whatever is decided on, it must be adequate to stop the Earl Street river, in the sort of floods we have seen in recent years.

In summary, we suggest that the optimal technical solution be determined by hydrological calculations from available data. Such calculations will be approximate but will give useful guidance. A price could then be arrived at for what is needed to do the job properly.

Funding

The cost of lowering the road surface at the far end of Lamarsh Road (for an overground solution) has been said by the County Council to be about £200,000. We do not know what that is based on; for example whether the length of road which would need to be lowered has been decided on with reference to levels AOD, and how much that lowering would need to be. So we are unsure how reliable the figure of £200,000 is. (As an approximation it is likely that about 50 m would need to be lowered, with a maximum depth to be removed at the Kingerlee site boundary of ~ 200 mm. Round the corner where Lamarsh Road turns east at the entrance to Kingerlee's site a further ~10 m would have to be tapered in to match.)

Oxfordshire County Council has applied for a grant from DEFRA for £100,000 to put in the single 0.4 m diameter pipe mentioned above.

Kingerlee are being very helpful and as part of the planning agreement are already providing funding under a Section 106 agreement: we presume that this money will be allocated to this project.

Oxfordshire County Council has applied for a (separate) DEFRA grant for £25,000 to raise the pavement at the northern end of Earl Street. The work is expected to start in April or May this year, so presumably independent of whether the grant application is successful or not, suggesting that an alternative source of £25,000 is available if needs be.

There does then already seem to be money which could be called on and grants which may be approved. We hope that the Environment Agency, Thames Water and Oxford City Council will be able to help if there is a shortfall. If that means reallocating money which was to have been spent elsewhere as part of the next round of Short-Term Measures, so be it.

Discussion

A conservative estimate puts the total immediate financial cost of flooding of Earl and Duke Streets in 2000, 2003 and 2007 at £3 million (using the mid-point of the national average cost of £25-30,000 per house per flood, ie £27,500, X 110 house-floods). The cost of the suggested works at a likely maximum of £200,000 is therefore remarkably good value. If the work is not done, or only partly done, before Kingerlee begin their development, then to do it in future could only be very much more expensive. And in the meantime Earl and Duke Streets would remain, totally unnecessarily, at high risk of flooding. This is a one-off opportunity to solve a very serious problem. ***We believe it should be the highest priority for any money that is available for flood relief in Oxford.***

To quote Robert Runcie, Director of Flood and Coastal Risk Management, Environment Agency, again:

“We all know that tackling flood and coastal erosion is no easy task. And it requires many organisations to work closely together in partnership...”

(Autumn 2009 edition of the Environment Agency's *Floodnews*).

Here's a chance, par excellence, to do so. Leaving it undone, or not done effectively, would condemn the two streets concerned to flood again and again. Whichever way you look at that it makes no sense at all.