

Odour from hot food

Agellus Hotels applied to South Kesteven District Council for change of use to operate a new hotel and restaurant in a Georgian building within a renowned conservation area in Stamford. The Council refused the application on a number of grounds, including concerns that odours from the restaurant kitchen would create an adverse impact on the amenity of neighbouring dwellings.

The proposed design included a restaurant kitchen to be located in the rear courtyard, overlooked by the windows of several neighbouring houses with windows within 5m. The proposed use would involve intense cooking odours for several hours per day. The application included details of a system to abate kitchen odours. The Airshed conducted an odour impact assessment as part of a planning appeal. Two models were used to predict dispersion: the advanced dispersion model ADMS, a standard tool used for regulatory purposes in the UK; and a fundamental dispersion model using Computational Fluid Dynamics (CFD).

Two Scenarios were considered: Scenario 1, where the emissions would be released at a height of 6m within the courtyard; and Scenario 2 where the emissions would be ducted inside the building in disused flues and released from existing chimneys above roof level. The odour dispersion modelling indicated that for Scenario 1 there was very poor dispersion within the courtyard and that a high level of abatement would be required, probably at the limit of what is technically feasible.

The assessment confirmed that the best option would be to duct the cooking odours using disused flues and releasing above roof level. This measure alone would significantly reduce the potential adverse impact and reduce dependence on odour abatement systems. Some odour treatment would be required to prevent or minimise loss of amenity, but this should be readily achieved.

Although the appeal was refused for other reasons, the Inspector found that the proposed odour abatement system would be acceptable and that odour from the new premises would be unlikely to affect amenity.

