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22nd September 2021

Regeneration and Planning London Borough of Camden 2nd Floor, 5 Pancras Square c/o Town Hall, Judd Street London WC1H 9JE

Dear Sir or Madam,

Flat 16, St. Stephens Close, Avenue Road, London NW8 6DB

Please find attached our application for 'Location of Air source heat pump on clerestory upstand above the main roof level and replacement of 2 no Crittall steel windows with white polyester coated aluminium louvre panels.'

Design and Access Statement

The proposed scheme is described above. The clerestory upstand which extends above the main roof level. Its original intention was to provide natural daylight over the internal toilet and bathroom 3 directly underneath. The reasons for the need for louvres in lieu of windows is explained in detail below. The previous owners of the flat had installed suspended ceilings within the bathroom and wc under the clerestory, so the windows ceased to serve a purpose.

Heating and hot water

The proposal to locate an air source heat pump on the roof is to provide an energy efficient form of heating and hot water than is currently available in the block. The central heating system is a communal form of heating with radiators against external walls that are of solid construction with no insulation. The heating distribution pipes rise vertically from the flats beneath, known as a 'ladder' system. The flat has a dozen radiators that all work on this system. The vertical pipes rise in the external wall construction with no insulation, so there is major heat loss making the system very inefficient and very costly to run.

The heating system is also very costly to maintain. Every time there is a problem on the system (and these are there are many and frequent) there has to be a full or partial draindown to allow maintenance work to take place. This means that the heating is shut off until the problem is fixed, whatever time of year, and the flats become cold very quickly due to the lack of insulation. The hot water is likewise a communal system, and the same applies, if work is needed on this very old system, hot water has to be shut off. So the proposal is to utilise an external Air Source Heat Pump that will provide independent hot water to the flat via a heat exchanger and hot water tank, and distribute heated water to the radiators without requiring connection to the common system. The external ASHP will sit on top of the clerestory upstand.

As shown on our plans, the clerestory upstand also encapsulates a vertical services shaft which incorporates the vertical drainage from the wc and bathroom each side and rises full height throughout the building. Each flat below has an identical layout of habitable rooms and bathrooms and riser shafts. In terms of extracting air from the bathrooms either side of the vertical shaft each has an open duct to the shaft, so there is in theory a passive stack ventilation system (i.e. there is no extract fan assistance), though it is unclear to us where this extracts to, if at all.

It can be seen from the accompanying roof photographs there is no duct extracting through the roof, but there may be some form of vent under the flat roof overhang.

This system is defective for 2 reasons. Firstly, there are no fire breaks between the riser shaft and bathrooms/wcs adjacent to it. So should a fire break out in any of the flats below, the duct would act as a chimney to spread fire throughout the building to the flats above. This fire risk is exacerbated by one of the flats below (we do not know which one) which discharges its kitchen extract into the duct, because cooking smells can be detected from the ducts linked to the shaft, and moreso when the internal shaft access door is opened. We do not know if the landlord is aware of this unauthorised use of the shaft to extract kitchen smells from a flat below.

So our proposal incorporates standard extract fans and ducts from the bathroom and wc below, each terminating behind a new louvred panel. Replacing the two redundant windows to the clerestory with louvres will give a neat external appearance. The existing ducts to the communal shaft will be blocked up to eradicate the fire risk and kitchen smells from below.

The two separate en-suite bathrooms in the flat also use passive ducts to extract air up to roof level, they can be seen on the accompanying plans (slightly remote form the bathrooms but linked with a duct at ceiling level. They can be seen as brick upstands on the roof photograph. As above there is no fan assistance with these 2 ducts and we are unsure as to how effective they are in extracting air, they certainly would not meet current building regulations for extracting air from bathrooms. They are likewise a fire risk between flats (which have identical layouts) in that fire can potentially spread between flats unabated via these ducts.

In this application it is proposed to maintain the passive ducts and install an intumescent fire damper to each duct which would be activated in the event of fire, to eradicate the risk.

In conclusion, this proposal enables the installation of a comprehensive energy efficient system for heating and hot water. It secondly allows the eradication of a significant fire risk to the flat, at a time when fire spread to blocks of flats is an issue of great concern, and any simple solution to eradicate a risk must be welcomed. Thirdly the nuisance issue of kitchen smells from another flat in the block will be likewise eliminated.

We respectfully request your consideration of these matters which eliminate two risks and contribute to the energy efficiency of the flat.

Yours faithfully,

Patryk Ingram

Encls.

Cc Mr D Ezekiel