Royal College of Physicians

New Flue Installation

Design and Access Statement



The proposals include the routing of new external flues from existing boiler room locations via the rear elevation of the building to roof level. A detailed design and access statement is not considered appropriate but background behind the selected design approach is included below.

The existing boiler plant is located within basement plantrooms of house three and seven. These plant installations serve houses one to four and houses five to eight respectively. Plant has reached its economic lifespan and requires replacement. Other factors include the low levels of energy efficiency achieved by the existing installations, ongoing maintenance issues and the availability of spares for plant which is no longer in production and operational issues associated with the existing flue installations.

Boiler flues from house seven currently terminate at low level within a lightwell to the rear of house seven. These discharges cause nuisance to adjacent occupiers when pluming of flue gases occurs and when under certain environmental conditions flue gases re-enter the building via openable windows to the rear of the building or via adjacent air intakes. This is both in contradiction of gas health and safety regulations and inherently unhealthy.

House three boiler plant has a flue dilution system which circulates air from the lightwell via the flue system and then returns it to the lightwell. The flue dilution system requires a ducted system complete with circulation fan and thus imposes an additional maintainable element and additional energy requirement on the system. Its operation has been problematic given the constraints of the current installation.

It is the intention to provide new flues to the replacement plant in both locations. Three boiler flues are required from each installation and these will exit the building via the most economic route and then rise to roof level. Routes externally have been selected to be as discreet as possible and the rising locations are on the cheeks of parts of the houses which project rearward from the main elevation. These routes have been identified on the accompanying drawn proposals.

Finishing of the flues will be a polyester powder coating in a RAL black colour to match the existing cast iron above ground drainage and rainwater drainage installations. (Exact RAL colour to be included in specification.)

Alternative routes have been considered and the team has investigated the potential to provide new service risers internally or to use existing internal features, such as existing chimneys. None of these options proved viable due to the disruption to the historic internal finishes for both installation and lifetime access to the installations which is required in accordance with current gas service regulations.

Proposals also include for the provision of an extract terminal at ground floor level adjacent the flues from house 7 boiler plant. The terminal forms part of a new extract ventilation system from an existing WC. It will also be finished in RAL black to match existing fitments.