## **Design Statement**

## Proposed New HWS Boiler Flue at Harvard Court, London NW6 1HL

The hot water service (HWS) system at Harvard Court serves 92 apartments and at present the hot water heating is supplied by 4 No. 50kW domestic condensing boilers, these boilers having been installed on a temporary basis to provide continuity of service following the removal of the failed original boilers.

Replacement of the HWS boilers and storage is proposed for Harvard Court, with the new installation designed to current standards and to ensure compliance with HSE 'Approved Code of Practice & Guidance' Document L8.

The HWS requirements at Harvard Court demand a 400kW boiler installation, which is to be based on 2 No. Broag Gas 210 ECO Pro condensing boilers located in the basement plantroom. Reuse of the brick flue that served the original boilers is not considered viable as the integrity of the brickwork cannot be guaranteed and lining the flue is not an option. The discharge of flue gases at low level would result an unacceptable water vapour 'plume', attributable to all high-efficiency condensing boilers, local to dwellings. The best technical solution is therefore to discharge the flue gases above roof level, following the route of existing piped services (see PA/HC/03) to minimise the aesthetic impact. This philosophy will also reduce noise levels at the point of discharge due to the substantial length of run and number of bends in the flue from the boilers, the boilers themselves having a declared sound level of  $\leq 59$  db(A) @ 1m.

November 2011