

Project: 39-41 Gordon Square, Birkbeck College  
Proposed Heating Distribution Alterations  
Client: Birkbeck College, University of London



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### **Design and Access Statement**

Our proposal is to upgrade the heating system within houses 39-41 Gordon Square, Birkbeck College, Malet Street, London WC1H 0PD.

Having successfully carried out stage one of the brief, which was the installation of a new boiler in the vault under the pavements of Gordon Square, we now need to upgrade / replace the pipework and radiators in the building.

The current installation is between forty and fifty years old and is in need of modernisation. The radiators are a combination of cast iron and panel type, the majority of which are either leaking, inefficient due to excessive internal build-up of scale and magnetite sludge, have either faulty or no thermostatic valves or controls or are incorrectly sized for the required duty. Generally, the entire heating distribution system requires upgrading as there have been many complaints from both staff and students with the regards to the internal environmental conditions within many of the offices and classrooms.

We propose to replace all the radiators and heating distribution pipework on a like for like basis, including the positioning of radiators and routes of pipework. The radiator sizes may differ slightly from those installed as we intend to meet the calculated heatloss for the areas. In order to maximise the efficiency of the proposed system, the new gas fired condensing boiler, installed at stage one, was designed to operate with flow and return temperatures of 65/45 °C subsequently, the radiators have been design to match these temperatures which and in some instances, has resulted in the radiators slightly increasing in size.

The heating distribution pipework needs to be replaced and in doing so, we will be largely following the routes of the existing pipework. The majority of heating distribution pipework is at low level (above skirtings), rising in boxing in the corners of some rooms (which will be removed and replaced when work is complete) and in the floor voids. We will be using existing notches in the joists of the floors and ceilings where necessary.

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## WC Specification

### Sanitary Ware

- **Toilets:** close coupled Armitage Shanks pans and cisterns (Wentworth 2CC) or the (Sandringham 6CC). All with horizontal outlets.
- **Toilet Seats:** White plastic seats and lids (Gemini type).
- **Basins:** Basins with pedestals with two tap holes (Sandringham Royalex 64, 56, or 51.) Anti tamper waste fittings.
- **Waste Pipe and fittings:** All waste pipeworks to be Terrain glued. Connections to copper pipework by Mac alpine plastic universal couplings. Toilet pans fitted to pan connectors.
- **Taps:** Basin pillar lever taps type 3 inch handles (Sandringham range S7096AA). Ordinary basin taps crossheads ((Sandringham range S7131AA).
- **Water Heaters:** Zip Water heater range of water heaters.
- **Floor Tiles:** Montana Super Black. Code number U119 MON SUP BLA/product number 779936 Size: 300 x 300mm. All with suitable adhesive compound and water and mould proof grouting recommended by the Manufacturer.
- **Wall Tiles:** Black HR Johnson. Code Number PRS 13. Size 147 x 147mm. White HR Johnson. Code number PRS 12. Size 147mm x 147mm.

All fixed with suitable adhesive compound and water and mould proof grouting recommended by the manufacturer.

### NOTES:

- No flexible tap connectors to be used. All plumbing to be hard plumbed to final connections.
- All pan screws and securing screws for basin etc to be Brass.
- All toilet pans to have horizontal outlets.
- All Basins to have Anti tamper waste fittings.
- All basin waste traps to be anti-siphon type.