

# SCOPE OF WORKS REPORT



FRANKHAM

## LISTED BUILDING AT EUSTON FIRE STATION

For:  
For:



LONDON FIRE BRIGADE

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## DOCUMENT VERIFICATION

### SCOPE OF WORKS REPORT

**ON:** LISTED BUILDING  
**AT:** EUSTON FIRE STATION  
**FOR:** LONDON FIRE BRIGADE  
**FRANKHAM PROJECT NO.:** 522223

**Signature:**

**Name:**

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**Approved by:** \_\_\_\_\_

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## **1.0 SCOPE OF WORKS FOR MECHANICAL & ELECTRICAL SERVICES**

The M&E works shall include the supervision; co-ordination; supply and delivery; off-loading; storing; erection; installation; testing and commissioning, of the services associated with the project, all as contained within this specification and/or shown on the accompanying services drawings.

Unless otherwise indicated, the work shall include, but not limited to:

- Power supplies to mechanical plant and equipment.
- Cable containment and carrier systems.
- Provision of new metering of ASHPs in accordance with Part L and CIBSE TM39
- Lighting systems (incl. emergency lighting) within boiler room.
- Earthing and bonding of extraneous metalwork.
- All associated design work and works and materials to make the installation complete.
- All builders work in connection with the M&E installations.
- All necessary earthing cables, loops, tags, boards, etc. to make all extraneous metal work and earth return paths compliant with BS 7671.
- Supply and install a new Low Temperature Hot Water Heating System consisting of CT and VT heating circuits.
- Supply and Install 4No. new Air Source Heat Pumps.
- Supply and Install 4No. new Air Source Heat Pump acoustic enclosures.
- Supply and Install temperature maintenance tape, including power requirements.
- Supply and install new radiators and associated pipework complete with all necessary controls to all areas of the building as indicated on the drawings and within the specification.
- Supply and Install new Appliance Bay fan convector heaters and associated pipework complete with all necessary controls as indicated on the drawings and within the specification.
- Supply and install a new mains water service.
- Supply and install a new Domestic Hot & Cold-Water System (including Hybrid ASHP Hot Water System).
- Supply and install a hot water secondary return system.
- Supply and install new CAT 5 Tank, Booster Set and Distribution System (including wall bracket)
- Supply and install new thermostatic shower mixers as per Mira Excel range.
- Supply and install new taps and shower heads.
- Supply and install Temperature Maintenance tape, including power requirements.
- Supply and install thermal insulation to the new heating and domestic services pipework in all areas of the building in accordance with the requirements of The Approved Documents, British Standards and TIMSA.
- Supply and install suitable systems so that all pipework shall be electrically bonded in accordance with the 18<sup>th</sup> Edition of the IEE Regulations (BS 7671).
- Supply and Install new BMS and Controls.

The Contractor shall isolate, disconnect, make safe and remove all redundant (even if not associated with the strip-out) electrical services, heating, domestic water pipework, equipment including accessories, fixings, insulation, cables, etc. Removal of the existing heating and domestic water plant, equipment, pipework, accessories, fixings, insulation, etc.

Unless otherwise indicated, the work shall include, but not limited to:

- Removal of the existing gas fired boilers.
- Removal of the existing boiler flue dilution system.
- Removal of the existing gas fired water heater.
- Removal of existing gas fired water heater flue system.
- Removal of the existing domestic cold water storage tanks, pipework, accessories, fixings, insulation, etc. contained within the existing Fifth Floor Tank Room.
- Removal of all existing heating, domestic hot and cold-water pipework, accessories, fixings, insulation, etc. contained within the building.
- Removal of all existing gas distribution pipework, ancillaries etc. downstream of the gas meter serving the Boiler room. Gas distribution pipework serving the Ground Floor kitchen facility, 3<sup>rd</sup> and 4<sup>th</sup> floors shall be retained.

## **2.0 BUILDERS WORK**

The Contractor shall be responsible for all builders' work in connection with the M&E services installations necessary, to provide a completed installation throughout the site.

The Contractor shall prepare drawings and mark out requirements on site for the builders' work specialist.

New pipework shall be routed via existing penetrations where possible. The Contractor shall re-use existing penetrations through walls, ceilings, floors etc.

- Cutting penetrations through walls and floors to allow cables, ducts and associated containment to pass through.
- Removing and replacing damaged ceiling tiles (like for like) as part of the works.
- Making good damage caused by the removal and installation works, services penetrations and fire stopping as required by the Building Regulations.
- Any new penetrations created or works impacting historic fabric will use like-for-like materials for repairs.
  - Where elements such as the existing boiler flue will be removed from the external brickwork, the existing perforations will be filled and repaired to match the existing brickwork.
  - In the case of removing any existing heating or electrical elements from the face of the Portland stone, matching stone repair mortar, in matching 'Portland Admiralty' shall be used to fill small holes and shall be appropriately 'aged' to match the colour of the existing stonework. If there are any larger holes within the stonework, heritage stone masons will be sought to repair the stonework with matching stone, although this will only take place if upon opening of the works, redundant M&E services are found. Photographs of the existing condition will be taken and recorded.
  - The existing ceiling tiles, whilst not part of the historic fabric of the building, will be replaced where broken or damaged with matching ceiling tiles. Internally, where the removal of existing services leaves a gap within a wall, this will be filled and made good with matching paint finishes or bespoke timber elements, although the proposal does not include any works to any timber elements – this will only occur if upon opening of the works, timberwork is found behind ceiling panels.
- Redundant services will be removed and rationalised to mitigate visual infrastructure clutter in the Building, with surfaces made good.
- If original detailing is discovered during the course of works (removal of the ceilings panels), this should be recorded and retained, with services re-routed to avoid impacting the historic fabric. Most of the proposed works take place behind removable, modern ceiling tiles, and although we are not expecting to discover historical elements behind these ceiling tiles, as much work has been carried out to

the building, these elements will dictate the routes through the fabric of the building so that these elements can be retained. Photographs of the existing condition will be taken and recorded and historical/heritage advice taken on any potential repairs.

- All proposed works have been located away from historic elements, where possible, including the historic panelling in the Rec Room, which is on opposing walls from the proposed works at ground level, or finishes below the level of the proposed penetrations at ceiling level.
- The wooden panelling will be protected during the construction phase and any accidental damage will be made good. The new radiators will replace existing wall hung radiators and where these radiators touch panelling, these will be replaced with floor standing radiators and the existing perforations for the existing radiators in the panelling will be filled with similar timber and finished to match the existing panelling.

### **3.0 INCOMING ELECTRICAL SUPPLY**

The upgrade of the incoming electrical DNO supply comes under another project.





## **APPENDIX A PHOTOGRAPHS**



Photo 1 - Services Riser in Boiler room



Photo 2 - High Level Services in Boiler Room to Rise to Above

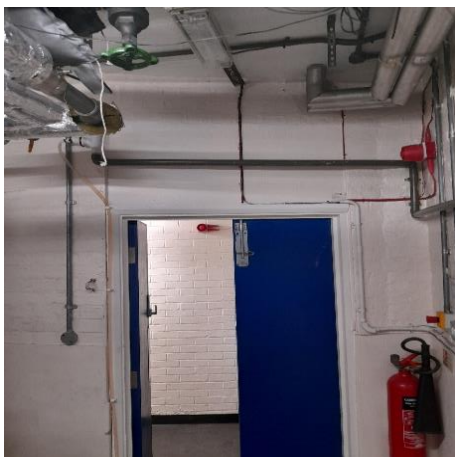


Photo 3 - Piped Services Penetrations to Above in Boiler Room

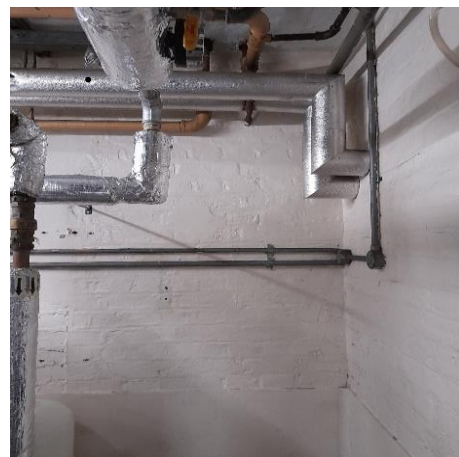


Photo 4 - Piped Services Penetrations Through Wall in Boiler Room

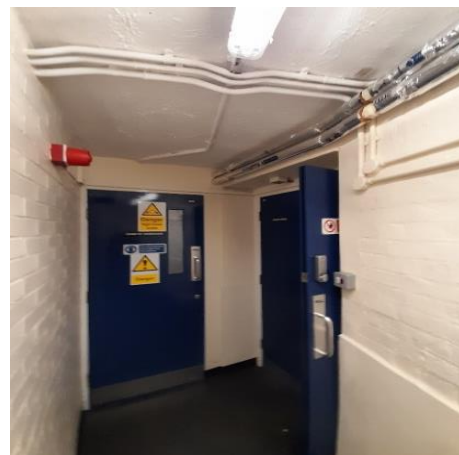


Photo 5 - Piped Services Penetrations  
Door Frame in Corridor



Photo 6 - Piped Services Penetrations  
Through Wall in Corridor Outside Boiler  
Room



Photo 7 - Piped Services Penetrations  
Through Wall in Gymnasium



Photo 8 - Piped Services Penetrations  
Through Wall in Gymnasium



Photo 9 - Piped Services Penetrations and  
Ventilation Duct Through Wall in  
Appliance Bay



Photo 10 - ASHP Piped Services  
Penetrations Through Appliance Bay  
External Wall





Photo 11 - ASHP Piped Services Penetrations Through Appliance Bay Internal Wall



Photo 12 - Piped Services Penetrations to Above in Gymnasium

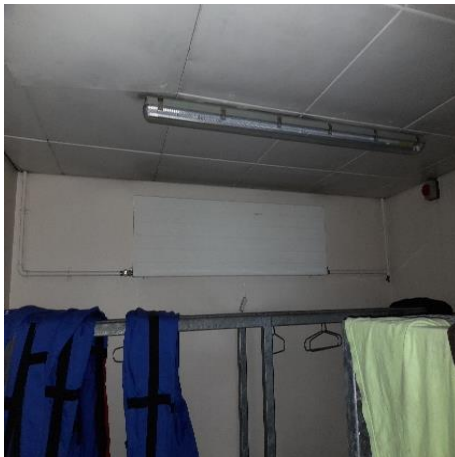


Photo 13 - Piped Services from Above in Drying Room

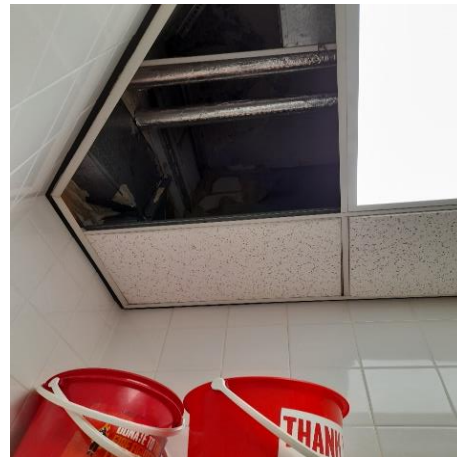


Photo 14 - Piped Services Penetrations Through Wall in Cleaner Cupboard



Photo 15 - Piped Services Penetrations from Above in WC

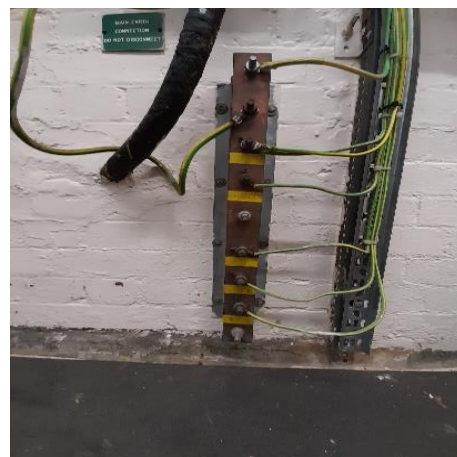


Photo 16 - Cable Penetration in Electrical Intake Room





Photo 17 - Cable/ Cable Tray Penetrations Through Wall in Corridor



Photo 18 - Cable Penetrations Through Ceiling in Corridor



Photo 19 - Damaged/ Missing Ceiling Tiles to be Replaced (like for like)



Photo 20 - Piped Services and Cable Penetrations Through Wall in Ceiling Void

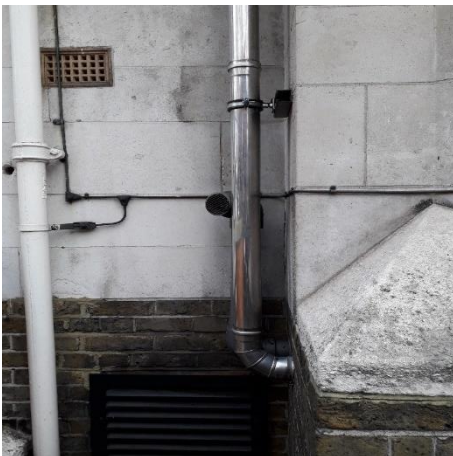


Photo 21 - Gas Fired Water Heater Flue Penetration Exiting Boiler room

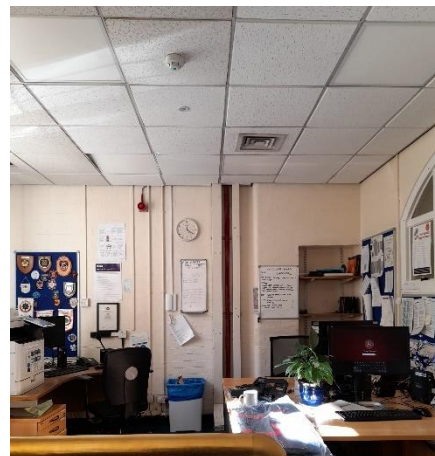


Photo 22 - Wall mounted cable containment through floor down into basement



Photo 23 – Cable containment through wall at high level into appliance bay



Photo 24 – Cable containment through wall at high level into gym from main switch room



Photo 25 – Cable containment at high level in gym



Photo 26 – Cable containment through wall into boiler room