



Historic England

Building Services Engineering Team

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Employer's requirements for the M&E Services

Amendments

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1.0 General Conditions/Preliminaires

1.01 The Project

This document is the employer's requirements for an 'Intermediate contract with contractor's design' to modify the Historic England and Landlords M&E services to suit the new Historic England layout and additional services detailed in this document.

1.02 Terms

The following terms are used within this specification and shall be construed accordingly;

- a) Project Manager - shall mean the official of the Historic England or their representative.
- b) Engineer - shall mean a member of the Historic England Building Services Engineering Team
- c) Contractor – for the purposes of the Tender the contractor shall be the person invited to prepare a Tender for the works described within this specification.

1.03 Tenderers

The M&E contractor shall be deemed to have made a thorough examination of the contract documents. The M&E contractor shall have visited site before tendering and must make due allowance in the tender price for local conditions, the nature and accessibility of the site, nature and extent of operations, the supply of conditions effecting labour, the storage space for materials, position of existing services and the executions of the works in general. Tenders shall comply with the requirements of this document. Where the tenderer wishes to submit an alternative for consideration it shall be drawn to the Engineer's attention before the submitting for tender.

1.04 Contractors' responsibilities

The M&E contractor will be responsible for:

- a) Carrying out a pre-construction survey, designing, supply, delivery, positioning, installing, setting to work and testing of the engineering services described in this document.
- b) Production of working drawings and coordination, builders work drawings and any

other detail drawing necessary to fully describe the extent of the works including all liaison and co-ordination necessary with other trade contractors and members of the professional team.

- c) The work shall comprise of the whole of the labour and, unless otherwise indicated, all the materials necessary to form a complete installation, including such tests, adjustments and commissioning as are prescribed in subsequent clauses and as may otherwise be required to give an effective working installation to the satisfaction of the Project Manager.
- d) The words “complete installation” shall mean not only the items of electrical equipment conveyed by this standard, but all the incidental sundry components necessary for the complete execution of the works and for the proper operation of the installation, whether or not these sundry components are mentioned in detail in the tender documents issued in connection with the contract.
- e) Adequate protection of equipment during transit shall be provided by manufacturers and the contractor shall ensure adequate protection on site. The contractor shall advise the Project Manager of any damage that occurs to equipment including finishes and shall carry out repairs as directed by the Project Manager.
- f) The work shall include for the removal and safe disposal of equipment where specified. The contractor shall be responsible for maintaining a tidy and clean site whilst working and the removal of all rubbish.
- g) Record drawings and maintenance manuals
- h) All builders work shall be carried out by the contractor under the direction of the Project Manager. The contractor shall not without approval drill and plug holes in walls, floors and ceiling etc. for securing services but shall liaise with the Architect about the method to be used, position and suitability on all building areas.

1.05 Health and Safety

The M&E contractor shall fulfill the relevant duties under the Construction (Design and Management) Regulations and co-ordinate with the ‘Principal Designer’. Risk assessments and method statements will be required in full for all work stages - they are to especially detail;

- a) how new installations will be installed alongside the live existing services
- b) how working areas will be kept clean;
- c) how arisings will be prevented from spreading outside the immediate working area;
- d) fixing details.

The M&E contractor must note that there are existing live services and that appropriate precautions should be made to ensure the safety of site personnel.

1.06 Engineering Design Responsibility

It is the requirement that the M&E contractor to bear all design liability in achieving the performance specification and compliances with all appropriate legislation and document set out in all the tender documents.

1.07 Standards

The complete installation shall comply with all relevant British Standards and, where indicated, with other standards and specifications, and all amendments to, or replacements of these. The relevant issues shall be those current three months before the date for return of tender, unless alternative dates are indicated.

Where practicable, each item of equipment shall be clearly and indelibly marked to indicate the standard with which it complies. Alternatively, a Certificate of Compliance shall be provided for the Project Manager, to be included in the handover documentation.

Where equipment or services are indicated to be manufactured or provided under a certification, licensing or quality assurance scheme, the manufacturer or supplier shall be a current participant in the relevant scheme. A 'Certificate of Compliance' shall be provided for the Project Manager, to be included in the handover documentation

Equipment supplied shall be of a standard that ensures its compliance with all appropriate British Standards and EU requirements.

The process must be undertaken with due consideration for the architectural and historical importance of 3 Chepstow Street.

1.08 Regulations

The design and installation shall comply with all relevant statutory instruments and regulations, Including, but not limited to, the following:

- a) Electricity at Work Regulations
- b) Electricity Supply Regulations
- c) Health and Safety at Work Act
- d) Construction (Design and Management) Regulations
- e) BS 7671:2008 Requirements for Electrical Installations
- f) Requirements of the local electricity, telecommunications, gas and water suppliers
- g) COSHH Regulations

- h) Construction (Working Places) Regulations
- i) Electrical Safety Quality and Continuity Regulations
- j) EU Directives implemented into British regulations.
- k) National Joint Utilities Guide for the positioning and colour coding of Utilities underground apparatus
- l) BS EN 61439-1:2011 Low-voltage switchgear and control gear assemblies. General rules
- m) BS EN 61439-2:2009 Low-voltage switchgear and control gear assemblies. Power switchgear and control gear assemblies
- n) CIBSE Guides, Commissioning Codes, Application Manuals and Technical Memoranda
- o) Building Regulations
- p) British and European Standards

1.09 Approval

Prior to commencing work the M&E Contractor shall prepare detailed design for all the M&E services and produce working drawings at a scale no smaller than 1:50 showing the entire layout in detail including the exact location of all plant, equipment, outlets, pipe runs etc.

The M&E contractor must accept responsibility for the accuracy of all drawings, calculations and documents submitted to the Engineer for approval. For Landlords systems the contractor will need to submit drawings and any other relevant technical information to the project manager for approval by the landlord prior to any work being undertaken. Approval or acceptance by the Engineer in no way diminishes the contractor's responsibility for any errors or omissions contained in such drawings or documents nor for their other contractual and legal obligations. Where changes are required in drawings previously submitted arrange for the changes to be made and submit revised drawings for approval.

1.10 Sign off Procedure

All drawings and calculations will need to be signed off by the Historic England ME&P Engineer. For Landlords system they will need to also be signed off by the Landlord's M&E maintenance contractor.

1.11 Preliminaries

The M&E contractor should refer to the Historic England Preliminaries and General Conditions document.



2.0 Building and existing services

2.01 Description and listed status

3 Chepstow Street is a five storey Grade II listed building. Historic England's north west regional office is located on the 3rd floor. Location map and listing Information can be found by following this link, <https://historicengland.org.uk/listing/the-list/list-entry/1208597>

The existing services and condition report can be found in **Appendix One**, and drawings in **Appendix 2**;

- E001 Electrical symbols legend
- E002 Electrical services distribution schematic
- E003 Electrical services existing lighting and fire alarm layout third floor
- E004 Electrical services existing small power and ancillaries third floor

- M001 Mechanical symbols legend
- M002 Mechanical services domestic water services layout third floor
- M003 Mechanical services existing ventilation services layout third floor
- M004 Mechanical services existing sprinkler services layout third floor

3.0 Scope of Works

The M&E Engineering Services Installations comprise the whole of the Design, Specification, Supply, Installation, Testing, Commissioning and setting to Work of the services indicated below:

- a) New heating controls
- b) Insulation to existing heating header pipework
- c) New three phase supply from the Landlords busbar chamber to a new distribution board
- d) Complete earthing system
- e) Supply to window actuators
- f) Removal and disposal of existing distribution boards
- g) Fire stopping
- h) All associated builderswork



4.0 Modifications and additional mechanical and electrical services

4.01 Heating and heating controls

The contractor shall provide local manual control to radiators through the installation of TRV valves for each individual heat emitter. It is expected that the contractor procures TRV valves that are compatible with the existing heat emitter pipework. The installed TRV valves must be able to be regulated manually, without the need of additional tools.

The boxing out on the north elevation is to remain with improved access panels to where the TRV's will be. The contractor will need to coordinate with the project manager where these locations will be required.

To improve the overheating in the office the contractor shall allow for insulating the header pipework in the space.

4.02 Electrical distribution equipment

A new metered three phase supply from the Landlords busbar chamber in the 3rd floor service stairwell shall be provided to a new distribution board located in the Historic England office reception.

The supply from the busbar chamber will be a new XLPE/LSF/SWA/LSF (COPPER) cables generally follow the existing submain cable route to the Historic England demise.

The new distribution board in the office space will have enough capacity to consolidate all the outgoing circuits from the existing distribution boards DB8, DB13, DB1 Y2 and provide 25% spare ways for future use.

4.03 Earthing and Bonding

The contractor shall make amendments to the existing earthing system to suit the new arrangement in accordance with the requirements of the IET Wiring Regulations and in particular BS 7430, Code of Practice for Earthing.

4.04 Window Actuators

The contractor shall provide fused connection power supplies to five windows on the north elevation for the motorised window actuators as shown on the **Construction Group Consultancy reflected ceiling plan 50(03)001**. The contractor shall allow for wiring from the fused connection to the actuator and to the wall mounted controller.



Appendix One – Existing electrical schematic



Appendix Two – Existing services drawings



Appendix Three - Electrical inspection condition report