

Technical Specification

For the Provision of Maintenance Services Issued by

**Gloucestershire Hospitals Subsidiary Company Ltd trading as Gloucestershire
Managed Services**

Tender Reference Number: LGM37069 – Z6.201.

Find a Tender Reference: 2024/S 000-013251

Maintenance Contract

Fixed Wire Electrical Testing

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Introduction

This document provides full details of the Client's requirements for Fixed Wire Electrical Testing.

You are required to complete all sections in the accompanying Invitation to Tender response document (ITT) and provide pricing in the accompanying Pricing Schedule.

The contract is to be delivered in line with the following Specification.

Please note any bids received that deviate from any aspect of this Technical Specification will be classed as variant bids, and bidders may be excluded from the procurement process.

Contract overview

Gloucestershire Hospitals Subsidiary Company Ltd trading as Gloucestershire Managed Services requires the fixed wire electrical testing to be carried out across the Trust to current 18 editions BS7671.

The winning contractor must provide the service in accordance with the requirements set out in this Technical Specification.

The Client reserves the right to add or remove sites if required during the contract term.

Lots

This contract will be awarded in a single lot.

Contract period

The contract will be for five years, commencing on 1st September 2024.

Location and sites

Name and address of sites where the contract will be carried out.

- Cheltenham General Hospital, Sandford Road, Cheltenham, Gloucestershire, GL53 7AN
- Gloucester Royal Hospital, Great Western Road, Gloucester, Gloucestershire, GL1 3NN

Working hours

Normal working hours are 08:00 to 16:00 (Monday to Friday).

Access

Due to the special nature of the hospital environment, access to buildings and special working conditions may affect some maintenance work.

Access to all areas for planned works must be notified in advance particularly for work affecting operating theatres where out of normal hours working may be required.

Generally, all buildings / departments should be available during the day by careful programming.

Contract Requirements and Level of Cover

LV electrical distribution system is effectively separated into five zones as detailed below. Any available drawings will be made available to the successful contract. The drawings reflect the main parts of the distribution system but do not show subsequent additions and modifications.

You will need to ascertain, record and report back to the Client, the exact number and size of the distribution boards and any additional equipment identified prior to and during the inspection and testing works.

You will maintain daily contact with the Client's Supervising Officer to discuss and update progress on a daily basis on any issues which may have arisen.

It is estimated the number of final circuits are 5541 for Gloucester and 5720 Cheltenham. Please also refer to "GRH Fixed Wire Phases 2024 – 2029" and "CGH Fixed Wire Phases 2024 – 2029" for full list of sites and locations.

Gloucester Royal Phases

	Year	Zones to be tested	No. of circuits
Phase One	2024/25	Grey - Mortuary sub-station	1396
Phase Two	2025/26	Blue - Tower sub-Station	1637
Phase Three	2026/27	Peach - Energy Centre A Sub-Station	1535
Phase Four	2027/28	Orange - Orchard centre Sub-station	523
Phase Five	2028/29	Purple - Energy Centre B and Redwood	450

Cheltenham General Phases

	Year	Zones to be tested	No. of circuits
Phase One	2024/25	Red	1242
Phase Two	2025/26	Orange	1612
Phase Three	2026/27	Green	880
Phase Four	2027/28	Blue	237

Phase Five	2028/29	Purple	1749
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You must submit with the Tender return a proposed programme of works, containing estimated times and dates for completion of each zone.

Where circuits prove difficult to identify it shall not be acceptable to omit testing of the circuit unless there are specific technical / operational reasons for the omission that have been formally agreed with the trust's Supervising Officer.

Previous installation test reports (where existing) will be made available electronically, however, the accuracy of existing circuit charts and other information supplied should not be relied upon. Due allowance should be made for the increased time likely to be taken in identifying / locating distribution boards and circuits.

Straightforward additional works are to be carried out as part of this contract at no additional cost, Eng. Identification/ tracing or circuits, supplying and fitting missing identification labels, danger and other warning signs, supplying and fitting earth tails up to 300mm in length, tightening loose connections, making safe damaged fuse holders, tightening loose accessories, fitting of blind grommets, realigning Circuit conductors in the correct sequence, etc.

Other more major defects identified during the works shall be recorded and forwarded to the Trust Supervising Officer. No works other than those stated shall be carried out without prior authorisation from the Supervising Officer.

You are required to prepare method statements, risk assessments and any other safety documentation necessary to ensure safe systems of working are observed and implemented at all times in accordance with the Health and Safety at Work act 1974. Prior to testing, you must detail the provision of any temporary supplies, earthing arrangements, design criteria and make a visual inspection.

When a Code 1 defect is identified (see remedial works below) you must contact the Supervising Officer immediately and submit a written notice report with associated remedial costs as soon as possible thereafter.

Inspection

A 100% inspection of the fixed wiring electrical installation shall be carried out on each Distribution Board and related area on an annual basis, in accordance with Part 6 Inspection and Testing of BS7671:2018 as amended. ***The formal visual inspection reporting format shall be based on 18th Edition IET Wiring Regulations, BS7671: 2018.Pages 480 to 483 inclusive.***

Reporting of observations shall strictly adhere to the Classification of Coding as prescribed within BS 7671 as follows:

Code 1: 'Danger present' – the safety of those using the installation is at risk, and it is recommended that a competent person undertakes the necessary remedial work immediately.

To be cited in situations which cannot be left, and immediate action is required.

Wherever practicable, items classified as 'Danger present' (C1) should be made safe on discovery.

Where this is not possible a written notification will be issued to the Trust Representative as a matter of urgency.

Code 2: 'Potentially dangerous' – the safety of those using the installation may be at risk, and it is recommended that a competent person undertakes the necessary remedial work as a matter of urgency.

To be cited in situations that, whilst urgent, do not require immediate remedial action

Code 3: 'Improvement recommended' - To be cited where a C1 or C2 does not apply.

FI: 'Further Investigation required without delay'

Code 1 and 2 items are to be immediately brought to the attention of the Client Estates Officer via an agreed formal documented 'Electrical Danger Notification' (EDN's) procedure.

If the circuit cannot be identified, it shall be reported immediately to the Client Electrical Services Manager AP (LV). If the circuit is to be isolated and locked off, or earthed if locking off is not possible, then a durable label shall be secured to the appropriate distribution board stating:

- Name of Contractor with contact telephone number
- Date of isolation
- Name of Hospital and site
- Circuit reference of isolated circuit
- Reason for isolation
- Instruction for re-energising the circuit

For locking off, the Contractor shall allow for the supply of padlocks which are coloured blue and the keys handed to the Client.

Planning

The hospital comprises a complex facility with numerous departments ranging from Administration through to Critical Care Wards and Operating Theatres. You are expected to prepare and submit a detailed programme of works for discussion and approval by the Client prior to the commencement of each phase of works.

You shall liaise with the local managers / heads of departments on a daily basis to ensure optimum methods for testing are utilised in order to reduce the risks and disruption to patients, visitors and staff.

It is expected for a substantial quantity of the electrical testing to be required to be carried out outside of normal working hours – the contractor must make due allowance for this in both pricing and schedule. Any claims for lost time must be agreed at the time and authorised by the Supervising Officer. No lost time payments will be made unless authorised as stated.

Remedial Works

A Code 1 defect identified during the testing programme, posing an immediate and unacceptable hazard, shall be corrected on the instruction of the Client Estates Officer. All other defects will be recorded. It is the Client's preference for some of the corrective works to be carried out during the visits with other corrective works going under a separate programme of works.

Marking Up

You must identify and mark / label (the identification markings to be agreed with the Client's Authorised Person) each distribution board and all circuit accessories using permeant labels – type to be agreed with the Estates Officer. Note: where the existing identification labels are illegible, ambiguous or in conflict with the drawing identification they too shall be replaced with new, at no extra cost to the Client.

You shall update existing distribution board schedules, or provide new as required.

Completion of Programme Phase

At the end of each phase of the project you must provide to the Client a comprehensive file clearly identifying all information associated with the works completed. This will include, but not limited to the following information:

1. Inspection and Test results and certificates in an approved and agreed format.
2. Copy of each distribution board schedule.
3. Location of each distribution board.
4. List of all C1 defects found and rectified.
5. List of all other defects and remedial cost estimates.
6. Advise inconsistencies with existing drawings.

Project Review

After completion of each phase of work the Client shall review, in conjunction with the Contractor, the contractor's performance and compliance with the Technical Specification. The Client reserves the right to terminate the contract in line with the NHS Terms and Conditions or at the end of any Phase of the works if the contractor is found to be non-compliant with the Technical Specification.

Accreditations

All work is to be managed by a senior qualified and experienced Test Engineer, supported by a team of qualified and experienced Test Engineers; all qualified to C&G 2391 & 2382 and current regulations 18th edition.

Contractor Responsibilities

While on site the Contractor and its staff must comply with the requirements of the Health and Safety at Work Act 1974 and other relevant legislation, including regulations and codes of practice issued and with the Clients own policies and procedures.

All new Contractors attending site for the first time must go through a Maintenance Site Induction.

All Contractors must report to the Estates Office and sign in before commencing work during normal working hours. For out of hours call outs, you must provide two employees who should liaise with the Estates Officer.

It is imperative all Contractors sign out before leaving site.

Visits to the locations are not permitted without the consent of the authorised officer.

All Contractors' employees who attend site shall be DBS checked by the Contractor.

The Contractor shall provide its staff with a form of identification acceptable to the Client. This must always be displayed whilst on site.

Following the Client's site induction, the Contractor's staff will be provided with identification which must be worn while on site.

In the event the Contractor enters the hospital buildings then compliance with all current NHS/Hospital Covid guidelines is mandatory.

Contractor's Tools and Equipment

The Contractor shall provide all necessary transport and equipment, including but not limited to; live working PPE, tools, instruments, test kits, access equipment, temporary barriers and signage, and first aid equipment necessary to carry out the work safely.

Certification and Reporting

Following completion of an inspection and test the Contractor shall submit the results to the Client within **four weeks** electronically.

An electrical installation condition report shall include:

- An Electrical installation condition report, schedule of inspection and schedule of test results in accordance with the requirements of BS7671: Appendix 6.
- Distribution board list detailing location and source of supply.
- Observations and recommendations for actions to be taken
- Agreed limitations, and demonstrated on the interactive website
- Date by which the next Electrical Installation Condition report is recommended.

Distribution Circuit Charts

New Distribution Board charts shall be provided and affixed adjacent to all Main Switch panels, Distribution switch panels and Distribution Boards.

Standards

The foregoing works will be undertaken in accordance with the following standards:

- Electricity at Work Regulations 1989.
- The Health & Safety at Work etc. Act 1974.
- IET Wiring Regulations - BS7671 as amended and in particular, Guidance Note No. 1, Guidance Note No. 3. and guidance note 7

Health & Safety Guidance Notes including but not limited to:

- HS(G) 85 Electricity at Work – Safe Working Practices
- IET Code of Practice for In-Service Inspection and Testing of Electrical Equipment (current edition throughout contract period)
- HTM 06-02 – Electrical Safety guidance for low voltage systems.
- GS 38 Electrical Test Equipment for Use by Electricians

Dedicated Contract Manager:

The Contract Manager or Qualifying Supervisor must have the following qualifications or latest equivalent:

- City & Guilds 2382-10/20 – 18th Edition I.E.E. Wiring Regulations BS7671.
- City & Guilds 2391; Inspection, Testing and Certification.
- Detailed knowledge of legislation; British Standards, HTM 06 Electrical Services Suite, Health and Safety and other guidance documentation associated with fixed electrical testing.

Site Staff

It is essential that all site staff have the following minimum qualifications and experience in testing fixed electrical installations.

- City & Guilds 2382-10/20 – 18th Edition I.E.E. Wiring Regulations BS7671.
- City & Guilds 2391 – Inspection, Testing and Certification.
- Criminal Records Bureau checked (DBS)
- Asbestos awareness

Certificates

The successful contractor on award of the contract will be expected to send proof of City & Guilds certification for all personnel involved in the contract.

Reviews

The Client requires an implementation meeting with the winning Contractor to be carried out at the start of the contract. This will include a site visit and induction.

The Client reserves the right to request ad-hoc review meetings. The schedule should be agreed at the initial implementation meeting and the contractor is responsible for contacting the Client to make the arrangements.

These will typically cover:

- Planned visit completion review
- Response and resolution times for un-planned work.
- Review and agreement of the value of any additional works

Invoicing and Payment Terms

The Client will raise an upfront order for the full contract duration and require invoicing after completion of each phase.

Invoices must be clearly marked with the current purchase order number together with the name, area and location of the circuits and areas worked on.

Payment of invoices will be made on receipt of the electronic electrical test certificates.

Terms and Conditions

Bidders should be aware any contracts arising from this procurement process shall be subject to the NHS Conditions for the Provision of Services with Maintenance Schedule Aug 2022. A copy of these terms can be viewed below:

[NHS Terms and Conditions with Maintenance Schedule Aug 2022.pdf](#)