

PERFORMANCE SPECIFICATION

Project Name: Condense Receiver
at
The Princess Alexandra Hospital
Harlow, Essex

The Princess Alexandra Hospital NHS Trust
Hamstel House
Princess Alexandra Hospital
Hamstel Road, Harlow, Essex
CM20 1QX

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PRELIMINARIES

Section 1.00

1. PRELIMINARIES

1.1 THE PROJECT GENERALLY

1.2 PROJECT PARTICULARS

1.2.1 THE PROJECT:

Name:

Location: The Princess Alexandra Hospital,
Hamstel Road
Harlow
Essex
CM20 1QX

1.2.2 EMPLOYER (CLIENT):

The Princess Alexandra Hospital NHS Trust
Hamstel Road
Harlow
Essex, CM20 1QX
Telephone: 01279 444455

1.2.3 THE PRINCIPAL CONTRACTOR:

To be Confirmed

1.2.4 CONTRACT ADMINISTRATOR:

Clive Austin
Capital and Estates
Drammen House
The Princess Alexandra Hospital
Hamstel Road,
Harlow, Essex, CM20 1QX
Telephone: 01279 827244

1.2.5 PLANNING SUPERVISOR:

Ian Haywood
Property Tectonics
58/62 Holywell Hill
St Albans
Herts, AL1 1BX
Telephone: (01727) 848597

1.2.6 MECHANICAL / ELECTRICAL ENGINEER:

Clive Austin
Capital and Estates
Drammen House
The Princess Alexandra Hospital
Hamstel Road,
Harlow, Essex, CM20 1QX
Telephone: 01279 444455 ext 7244

1.3 TENDER AND CONTRACT DOCUMENTS

1.3.1 THE TENDER DRAWINGS:

Drawing No.	Description
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1.3.2 MECHANICAL AND ELECTRICAL: GENERAL REQUIREMENTS

This is detailed in the scope of works

1.3.3 THE PRE-TENDER HEALTH AND SAFETY PLAN:

To be issued separately.

1.4 THE SITE / EXISTING BUILDINGS

1.4.1 THE SITE:

The site boundaries for this Project are the workings areas as shown on the tender drawings.
Site compound area to be agreed.

1.4.2 EXISTING BUILDING:

The buildings will be in use but the working areas will be vacant and will remain so for the duration of the contract.

Fire escapes from the existing surrounding buildings will need to be maintained.

1.4.3 EXISTING SERVICES

Where applicable, existing services are indicated on the tender drawings.

1.4.4 SITE VISIT:

The contractor should visit the site when preparing the tender and must make due allowance for:-

- Local conditions
- Extent of operations
- Supply of and conditions affecting labour
- Storage space for materials, including all additional handling, transporting and access arrangements due to site conditions

Site visits must be by appointment. Appointments to visit site should be made with Clive Austin who can be contacted on 01279 827244.

1.5 DESCRIPTION OF THE WORK

1.5.1 BRIEF SCOPE OF WORK:-

The Princess Alexandra Hospital NHS Trust would like to carryout a competition to supply and install x2 condense receivers at 2 location within the PAH site. This project is to be carried out as part of the estates backlogs maintenance in-order to comply with current HBN recommendations and also improve the aging infrastructure of the site.

1.5.2 THE PLANS

Modifications can be made but drawings showing any variations must be submitted at tender return.

1.5.3 PROGRAMME

The Princess Alexandra Hospital (PAH) requires the areas be completed including commissioning / handover ready for use by **Date 28/02/2018**

A fully detailed program shall be presented with the tender that indicates the time from date of order to completion.

Project Name

1.5.4 BUILDING REGULATIONS

Please refer to the Scope of Work paragraph 1.7 Relevant Standards

THE CONTRACT

Section 2.00

2. THE CONTRACT

2.1 MWD 2011 Minor Works Building Contract with contractor's design 2011

2.2 SUB - CONTRACTS

Ensure that all sub-contractors, suppliers and others responsible to the Contractor or who may affect or be affected by the works are fully aware of the contract conditions and any amendments thereto.

2.3 DOMESTIC SUB-CONTRACTOR APPOINTMENTS

Domestic Sub-contractors will be subject to appointment in accordance with section 3 clause 3.3 of the Main Contract Conditions.

THE CONDITIONS:

Section 1 Definitions and Interpretation

- 1.1 Definitions
- 1.2 Agreement etc. to be read as a whole
- 1.3 Headings, references to persons, legislation etc.
- 1.4 Reckoning periods of days
- 1.5 Contracts (Rights of Third Parties) Act 1999
- 1.6 Notices and other communications
- 1.7 Applicable Law

Section 2 Carrying out the Works

- 2.1 Contractor's obligations
- 2.2 Materials, goods and workmanship
- 2.3 Commencement and completion
- 2.4 Architect/Contract Administrator's duties
- 2.5 Correction of inconsistencies
- 2.6 Divergences from Statutory Requirements
- 2.7 Fees and charges legally demandable
- 2.8 Extension of Time
- 2.9 Damages for non-completion
- 2.10 Practical completion
- 2.11 Defects
- 2.12 Certificate of making good

Section 3 Control of the Works

- 3.1 Assignment
- 3.2 Person in Charge
- 3.3 Sub-contracting
- 3.4 Architect/Contract Administrator instructions
- 3.5 Non-compliance with instructions
- 3.6 Variations
- 3.7 Provisional Sums
- 3.8 Exclusion from the Works
- 3.9 CDM Regulations – Undertaking to comply
- 3.10 Appointment of successors

Section 4 Payment

- 4.1 VAT
- 4.2 Construction Industry Scheme (CIS)
- 4.3 Interim payments up to practical completion
- 4.4 Interim payments on and after practical completion
- 4.5 Payment – amount and notices
- 4.6 Failure to pay amount due
- 4.7 Contractor's right of suspension

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- 4.8 Final certificate and final payment
- 4.9 Failure to pay final amount
- 4.10 Fixed price
- 4.11 Interim Payments – final date and amount
- 4.12 Contribution, levy and tax fluctuations

Section 5 Injury, Damage and Insurance

- 5.1 Liability of Contractor – personal injury or death
- 5.2 Liability of Contractor – injury or damage to property
- 5.3 Contractor's insurance of his liability
- 5.4A Insurance of the Works by Contractor in Joint Names
- 5.4B Insurance of existing structures and the Works by Employer in Joint Names
- 5.4C Insurance of existing structures by Employer in own name
- 5.5 Evidence of insurance

Section 6 Termination

- 6.1 Meaning of insolvency
- 6.2 Notices under Section 6
- 6.3 Other rights, reinstatement
- 6.4 Default by Contractor
- 6.5 Insolvency of Contractor
- 6.6 Corruption
- 6.7 Consequences of termination under clauses 6.4 to 6.6
- 6.8 Default by Employer
- 6.9 Insolvency of Employer
- 6.10 Termination by either Party
- 6.11 Consequences of Termination under clauses 6.8 to 6.10

Section 7 Settlement of Disputes

- 7.1 Mediation
- 7.2 Adjudication
- 7.3 Arbitration

- Schedule 1 Arbitration
- Schedule 2 Fluctuations Option
- Schedule 3 Supplemental Provisions

EMPLOYERS REQUIREMENTS Section 3.00

3.00 EMPLOYER'S REQUIREMENTS

(This section gives the Employer's requirements for all works carried out on the PAH site, therefore contractors should be mindful that there may be clauses below which are not applicable to the Job in hand, if in doubt concerns to be raise and brought to the attention of the PAH Project Manager).

3.1 TENDERING/SUBLETTING/SUPPLY

MAIN CONTRACT TENDERING

3.1.1 SCOPE

These conditions are supplementary to those stated in the invitation to tender and the Form of Tender.

3.1.2 TENDERING PROCEDURE

Will be in accordance with the principles of the 'Code of Procedure for Single Tendering' 1996

3.1.3 ACCEPTANCE OF TENDER

The Employer and his representatives:

- Offer no guarantee that the lowest or any tender will be recommended for acceptance or accepted.
- Will not be responsible for any cost incurred in the preparation of any tender

3.1.4 PERIOD OF VALIDITY

Tenders must remain open for consideration (unless previously withdrawn) for not less than period of 3 calendar month/s from date fixed for the submission or lodgment of tenders.

PRICING /SUBMISSION OF DOCUMENTS

3.1.5 PRELIMINARIES IN THE SPECIFICATION

The Preliminaries /General Conditions sections (1.10-5.60 inclusive) must not be relied on as complying with SMM7.

3.1.6 SPECIFICATION WITHOUT QUANTITIES

Where and to the extent that quantities are not included in the specification, tenders must include for all work shown or described in the tender documents as a whole or clearly apparent as being necessary for the complete and proper execution of the works.

3.1.7 PRICING OF SPECIFICATION

Alterations and qualifications to the specification must not be made without consent of the CA. Tenders containing unauthorised alterations or qualifications may be rejected. Costs relating to items in the specification, which are not priced will be deemed to have been included elsewhere in the tender.

3.1.8 THE CONTRACT SUM ANALYSIS

Must be submitted with the tender.

3.1.9 ERRORS IN THE PRICED SPECIFICATION/CONTRACT SUM ANALYSIS

Will be dealt with in accordance with the Code of Procedure for single stage selective tendering 1996 alternative 1 (the word 'specification ' or the words 'contract sum analysis ' being substituted for 'bills of quantities')

3.1.10 TENDER SUBMISSION

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Tender No **xxxxx**

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The tender submission shall comprise:

- Form of Tender
- Tender Certificate
- Tender Summary
- Building Works Tender Summary
- Preliminaries and provisional sums
- Electrical Services Tender Summary
- Mechanical Services Tender Summary
- Detailed Construction Programme

3.1.11 PROGRAMME

The contractors proposed programme as specified in section 1.53 showing the sequence and timing of the principal parts of the works, periods for (planning and design and itemising any work which is excluded must be submitted with the tender).

SUBLETTING

Without the written consent of the Contract Administrator, the Contractor shall not assign this contract.

3.2 PROVISION, CONTENT AND USE OF DOCUMENTS

DEFINITIONS AND INTERPRETATIONS

3.2.1

CA means the person nominated in the Contract as the Contract Administrator or his authorised representative.

3.2.2 IN WRITING

When required to advise, notify, inform, instruct, agree, confirm, obtain information, obtain acceptance or obtain instructions do so in writing.

3.2.3 ACCEPTANCE

(and words derived there from) means the acceptance in writing of the CA unless specified otherwise.

3.2.4 A PRODUCT

Means materials (including naturally occurring material and goods (including components, equipment and accessories) intended for permanent incorporation in the works.

3.2.5 EQUIVALENT PRODUCTS

Where the specification permits substitution of a product of different manufacture to that specified and such substitution is desired, before ordering the product notify the employer and when requested, submit for verification documentary evidence that the alternative product is equivalent in respect of material, safety, reliability, function, compatibility with adjacent construction, availability of compatibly accessories and, where relevant, appearance. Submit certified English translations of any foreign language documents.

Any proposal for use of an alternative product must also include proposals for substitution of compatible accessory products and variation of details as necessary, with evidence of equivalent durability, function and appearance of the construction as a whole. If such substitution is sanctioned, and before ordering products, provide revised drawings, specification and manufacturer's guarantees as required by the CA.

3.2.6 EQUIVALENT PRODUCTS

Whenever products are specified by proprietary name and the phrase 'or equivalent' is not included, it is deemed included.

3.2.7 BRITISH STANDARD PRODUCTS

Where any product is specified to comply with a British Standard for which there is no equivalent European Standard it may be substituted by a product complying with a grade or category within a national standard of another Member State of the European Community or an International standard recognised in the UK specifying equivalent requirements and assurances in respect of material, safety, reliability, functioning compatibility with adjacent construction, availability of accessories and where relevant, appearance. In advance of ordering notify the CA of all such substitutions and, when requested, submit for verification documentary evidence confirming that the products comply with the specified requirements.

3.2.8 REFERENCES TO BSI DOCUMENTS

Are to the versions and amendments listed in the British Standards Catalogue and in subsequent issues of BSI Update - Standards up to and including that for one month before the date of the submission of tenders.

3.2.9 FIX ONLY

Means all labour in unloading, handling, storing and fixing in position, including use of all plant.

3.2.1 SUPPLY AND FIX

Unless stated otherwise all items given in the schedule of work and/or on the drawings are to be supplied and fixed complete.

DOCUMENTS PROVIDED ON BEHALF OF THE EMPLOYER

3.2.11 ADDITIONAL COPIES OF DRAWINGS

All information will be issued in electronic format (PDF). Contractors are to copy/print all information.

3.2.12 ADDITIONAL COPIES OF EMPLOYERS REQUIREMENTS

Not used.

3.2.13 TENDER DRAWINGS

Show required room layout and elevations any significant variations to these drawings must be included in the tender return. It is the responsibility of the Contractor to complete the design, make due allowance for all materials necessary to complete the work and to achieve a full co-ordination of building, all services and equipment.

3.2.14 DIMENSIONS

The accuracy of dimensions scaled from the drawings is not guaranteed. Obtain from the employer any dimensions required but not given in figures on the drawings nor calculable from figures on the drawings.

DOCUMENTS PROVIDED BY CONTRACTOR / SUB-CONTRACTORS

3.2.15 CONTRACTORS DESIGN: DESIGN AND PRODUCTION INFORMATION

When preparing the master programme make reasonable allowance for completing design / production information, including submission to the Planning Supervisor for comment, inspection by the CA, and any subsequent amendment(s), resubmission(s) and re-inspection(s).

During the Contract submit to the employer the required number of copies of design / production information. The employer will note his comments on one copy, then return to the contractor.

Ensure that any necessary amendments are made with no delay. Unless and until the employer confirm that resubmission is not required submit copies of amended drawings etc. to employer, and ensure incorporation of necessary amendments all as before.

If submitted design / production information differs from the Employers Requirements, each such difference

must be the subject of a request for substitution or Change, supported by all relevant information.

Should any amendment required by the Employer be considered to involve a Change which has not already been acknowledged as a Change by the Employer, notify the Employer without delay and in any case within 7 days, and do not proceed with ordering, fabrication, erection or installation until subsequently instructed. Claims for the extra cost of such work, if made after it has been carried out, may not be allowed.

Complete final version of all design / production information and submit to the Employer the number of copies required by him.

3.2.16 PRODUCTION INFORMATION for the Contractor's designed work must include:

The design / production information shall be submitted within 2 working weeks of the date of acceptance of the tender by, or on behalf of, the Employer.

Drawings shall be to scale 1:50 for departmental plans.

3.2.17 PRODUCTION DRAWINGS

Prepare production drawings of the Contractor's proposal including Building work, Mechanical and Electrical services.

For services engineering information, submit two copies to the Employer and two further copies to the Mechanical and Electrical Engineer. Allow, from receipt from the Employer / Engineer, 5 working days for their inspection / comments of the first issue of each item of information and 5 working days for subsequent resubmissions.

For substructure information, submit two copies to the Employer and two further copies to the Structural Engineer. Allow, from receipt from the Employer / Engineer, 5 working days for their inspection / comments of the first issue of each item of information and 5 working days for subsequent resubmissions.

For superstructure information, submit two copies of such information to the Employer. Allow, from receipt by the Employer, 5 working days for his inspection / comments.

The Employer's agent inspection will not relieve the Contractor of his responsibility to check dimensions and quantities, nor, the Contractor's / Sub-Contractor's design responsibility where such design is specified in, or by performance requirements is derived from, this Specification.

3.2.18 AS BUILT DRAWINGS

Shall be maintained on site as a fully detailed record of all changes from the Production drawings. These shall be kept available at all times for inspection by the Employer.

3.2.19 AS BUILT DRAWINGS AND INFORMATION

Must be provided to the Employer not less than 2 weeks before the date for Completion as follows.

3.2.20 MAINTENANCE INSTRUCTIONS AND GUARANTEES

Retain copies delivered with components and equipment (failing which, obtain), register with manufacturer as necessary and hand over to Employer on or before Practical Completion. Notify Employer of telephone numbers for emergency services by Subcontractors after Practical Completion.

3.3 MANAGEMENT OF THE WORKS

GENERALLY

3.3.1 BUILDING REGULATIONS: Submit for and obtain Full Building Regulations approval.

3.3.2 SUPERVISION

Accept responsibility for co-ordination, supervision and administration of the Works, including all subcontracts. Arrange and monitor a programme with each subcontractor, supplier, local authority and statutory undertaker,

and obtain and supply information as necessary for co-ordination of the work.

3.3.3 INSURANCES

Before starting work on site submit documentary evidence and/or policies and receipts for the insurances required by the Conditions of Contract.

3.3.4 CLIMATIC CONDITIONS

Keep an accurate record of:

- Daily maximum and minimum air temperatures.
- Delays due to adverse weather, including description of the weather, types(s) of work affected and number of hours lost.

3.3.5 OWNERSHIP

Materials arising from the alteration work are to become the property of the Contractor except where otherwise stated. Remove from site as work proceeds.

3.3.6 HARDCORE

Brick rubble or other hard materials arising from the work may not be reused as hardcore.

3.3.7 EMERGENCY CONTACTS

When required by the Employer provide him with details of two alternative emergency 'out of hours' telephone numbers for the Principal, Mechanical, Electrical contractors and such other contractors specified by the Employer.

3.3.8 PROGRAMME

As soon as possible and before starting work on site prepare in an approved form a master programme for the works, which must make allowance for all:

- * Design and production information provided by the Contractor / Sub-Contractors / Suppliers, including inspection and checking.
- * Planning and mobilisation by the Contractor
- * Running in, adjustment, commissioning, testing and validation of all engineering services and installations.
- * Work resulting from instructions issued in regard to the expenditure of provisional sums.
- * Work by or on behalf of the employer

The nature of the scope of which, the relationship with preceding and following work and any relevant limitations are suitably defined in the contract documents.

Where and to the extent that the programme implications for work which is not so defined are impossible to assess the Contractor should exclude it from his programme and confirm this when submitting the programme. Submit 4 copies to Employer.

3.3.9 MONITORING

Record progress on a copy of the programme kept on site. If any circumstances arise which may affect the progress of the Works put forward proposals or take other action as appropriate to minimise any delay and to recover any lost time.

3.3.10 PROJECT MEETING

Prior to the commencement of the works the Employer will call a meeting to review the project. The Employer will chair, take and distribute minutes.

3.3.11 CONTRACTORS SITE MEETINGS

The contractor shall hold regular site meetings to review progress and other matters arising from the administration of the Contract. Meetings will be held at least bi monthly.

Invite Employer to each meeting.

Ensure the availability of accommodation at the time of such meetings.

Attend all meetings and inform subcontractors and suppliers when their presence is required.

The Contractor shall chair the meetings and take and distribute minutes.

3.3.12 NOTICE OF COMPLETION

Give Employer at least 2 week's notice of the anticipated dates of practical completion of the whole or parts of the Works.

3.3.13 ADVERSE WEATHER

Use all reasonable and suitable building aids and methods to prevent or minimise delays during adverse weather conditions.

3.3.14 EXTENSIONS OF TIME

When a notice of the cause of any delay or likely delay in the progress of the Works is given, written notice must also be given of all other causes which apply concurrently. The Contractor shall, as soon as possible, submit to the Employer:

Relevant particulars of the expected effects if appropriate related to the concurrent causes.

An estimate of the extent, if any, of the expected delay in the completion of the Works beyond the Date for Completion, and all other relevant information required by the Employer.

CONTROL OF COST

3.3.15 EXISTING WORK

The extent and location of renewal of existing work must be agreed, at least on a provisional basis, with the Employer before the work is started. Remove existing work in ways to reasonably minimise the amount of removal and renewal.

3.3.16 EMPLOYER INSTRUCTIONS

If requested by the Employer prepare costs of issued instructions within 10 days.

3.3.17 PROPOSED INSTRUCTIONS

If the Employer issues details of a proposed instruction with a request for an estimate of cost, submit such an estimate without delay and in any case within 7 days. The estimate must include:

A detailed breakdown of the cost including any allowance for direct loss and expense.

Details of any additional resources, which may be required.

Details of any adjustments, which may have to be made to the programme for the works.

Any other information as is reasonably necessary for the Employer to fully assess the implications of issuing such an instruction.

Inform the Employer immediately if it is not possible to comply with any of the above requirements.

3.4 STANDARDS / QUALITY CONTROL

MATERIALS AND WORK GENERALLY

3.4.1 GOOD PRACTICE

Where and to the extent that materials, products and workmanship are not fully detailed or specified they are to be:

Of a standard appropriate to the Works and suitable for the functions stated in or reasonably to be inferred from the project documents, and

In accordance with good building and services installation practice.

3.4.2 GENERAL QUALITY OF PRODUCTS / MATERIALS

Products to be new unless otherwise specified.

For products specified to a British or European Standard obtain certificates of compliance from manufacturers when requested by Employer.

When a choice of manufacturer or source of supply is allowed for any particular product or material, the whole quantity required to complete the work must be of the same type, manufacture and/or source unless otherwise approved. Produce written evidence of sources of supply when requested by Employer.

Ensure that the whole quantity of each product and material required to complete the work be of consistent kind, sized, quality and overall appearance.

Where consistency of appearance is desirable ensure consistency of supply from the same source. Unless otherwise approved do not use different colour batches where they can be seen together.

If products are prone to deterioration or have a limited shelf life, order in suitable quantities to a programme and use in appropriate sequence.

3.4.3 PROPRIETARY PRODUCTS

Handle, store, prepare and use or fix each product in accordance with its manufacturers current printed or written recommendations/instructions. Inform Employer if these conflict with any other specified requirement. Submit copies to Employer when requested.

The tender will be deemed to be based on the products as specified and recommendations as described in the manufacturers' literature current at one month before tender return date.

Obtain confirmation from manufacturers that the products specified and recommendations on their use have not been changed since that time. Where such change has occurred inform Employer and do not place orders for or use the affected products without further instructions.

Where British Board of Agreement certified products are used, comply with the limitations, recommendations and requirements of the relevant valid certificates.

3.4.4 PROTECTION OF PRODUCTS

Prevent over-stressing, distortion and any other type of physical damage.

Keep clean and free from contamination, prevent staining, chipping, scratching or other disfigurement, particularly of products exposed to view in the finished work.

Keep dry and a suitably low humidity atmosphere to prevent premature setting, moisture movement and similar defects. Where appropriate store off the ground and allow free air movement around and between stored products.

Prevent excessively high or low temperatures and rapid changes of temperature of the products.

Protect adequately from rain, damp, frost, sun and other elements as appropriate. Ensure that products are at a suitable temperature and moisture content at time of use.

Ensure that sheds and covers are of ample size, in good weatherproof condition and well secured.

Keep different types and grades of products separately and adequately identified.

So far as possible keep products in their original wrappings, packing or containers, until immediately before they are used.

Wherever possible retain protective wrappings after fixing and until shortly before Practical Completion. Ensure that protective measures are fully compatible with and not prejudicial to the products / materials.

3.4.5 SUITABILITY OF PREVIOUS WORK AND CONDITIONS

Before starting each new type or section of work, ensure that:

Previous, related work is appropriately complete, in accordance with the project documents, to a suitable standard and in suitable condition to receive the new work.

All necessary preparatory work has been carried out, including provision for services, damp proofing, priming and sealing.

The environmental conditions are suitable, particularly that the building is suitably weather-tight when internal components, services and finishes are installed.

3.4.6 GENERAL QUALITY OF WORKMANSHIP

Operatives to hold a construction skills certificate scheme (CSCS card) must be appropriately skilled and experienced for the type and quality of work.

Take all necessary precautions to prevent damage to the work from frost, rain and other hazards.

Inspect components/materials carefully before fixing or using and reject any, which are defective.

Fix or lay securely, accurately and in alignment.

Where not specified otherwise, select fixing and jointing methods and types, sizes and spacing of fastenings in compliance with section Z20, fastenings to comply with relevant British Standard.

Provide suitable, tight packing at screwed and bolted fixings to take up tolerances and prevent distortion. Do not over tighten fixings.

Adjust location and fixing of components so that joints, which are to be finished with mortar or sealant or otherwise left open to view are even and regular. Ensure that all moving parts operate properly and freely.

Do not cut, grind or plane pre-finished components to remedy binding or poor fit without approval.

3.4.7 BS 8000: BASIC WORKMANSHIP

Where compliance with BS 8000 is specified, this is only to the extent that the recommendations therein define the quality of the finished work.

Where BS 8000 gives recommendations on particular working methods or other matters which are properly within the province and responsibility of the Contractor, compliance therewith will be deemed to be a matter of general industry good practice and not a specific requirement of the Employer under the Contract.

If there is any conflict of discrepancy between the recommendations of BS 8000 on the one hand and the project documents on the other, the latter will prevail.

ACCURACY / SETTING OUT GENERALLY

3.4.8 SETTING OUT

Check levels and dimensions of the site against those shown on the drawings, and record the results on a copy of the drawings. Notify the Employer in writing of any discrepancies and obtain instructions before proceeding.

3.4.9 APPEARANCE AND FIT

Arrange the setting out, erection, juxtaposition of components and applications of finishes (working within the practical limits of the design and the specification) to ensure that there is satisfactory fit at junctions, that there are no practically or visually unacceptable changes in plane, line or level and that the finished work has a true and regular appearance.

Wherever satisfactory accuracy, fit and/or appearance of the work are likely to be critical or difficult to achieve obtain approval of proposals or of the appearance of the relevant aspects of the partially finished work as early as possible.

Without prejudice to the above and unless specified otherwise, tolerances will (where applicable) be not greater

than those given in BS5606, Tables 1 and 2.

SERVICES GENERALLY

3.4.10 SERVICE RUNS

Make adequate provision for services, including unobstructed routes and fixings. Wherever possible ducts chases and holes are to be formed during construction rather than cut.

3.4.11 MECHANICAL AND ELECTRICAL SERVICES

Must have final tests and commissioning carried out so that they are in full working order at practical completion.

3.4.12 TESTING GENERALLY

Testing is the process of inspection, which is necessary to determine whether plant, equipment and installations meet the specified requirements.

3.4.13 TESTING MATERIALS ETC

The contractor shall provide such labour, materials, stores, apparatus and instruments as may be required for the tests.

3.4.14 TEST RESULTS

On completion of the testing, one copy of the results shall be supplied to the Employer, duly signed on behalf of the contractor and authorised by the Employer or his site representative. It is the responsibility of the contractor to bring to the specific attention of the Employer any failure in his attempts to meet the test requirements.

Where failure is demonstrably due to a fault in the installation attributable to the contractor or his workmen the whole of the cost of the correction of such work including all water, fuel and electricity used shall be borne by the contractor

PRACTICAL COMPLETION

3.4.15 COMMISSIONING GENERALLY

Commissioning is the advancement of engineering plant, equipment and installations from the stage of static completion to full working order to specified requirements and includes the setting-to-work and performance testing of all plant, equipment and installations and the documentation of results.

Commissioning will include the energising of electrical installations, setting plant and equipment into motion, verifying the operation of controls, safety devices and alarms; the regulating of flow quantities and the setting of controls within limits specified in the specification.

3.4.16 COMMISSIONING MATERIALS

The contractor shall provide all labour, materials, instruments all other items necessary for commissioning.

The contractor shall provide evidence of the state of calibration of the instruments he proposes to use and when requested to do so, shall verify their accuracy to the satisfaction of the Employer.

The type of instruments used and their application shall also be subject to the Employer's approval.

3.4.17 VALIDATION

Once the testing and commissioning described above and in volumes 2 and 3 has been completed and agreed by the Employer/ Engineer, demonstrate compliance to the requirements to the Employer's validation officer.

SUPERVISION/INSPECTION/DEFECTIVE WORK

3.4.18 SUPERVISION

In addition to the constant management and supervision of the works provided by the Contractor's person in charge, all significant types of work must be under close control of competent trade supervisors to ensure maintenance of satisfactory quality and progress.

3.4.19 ACCESS FOR EMPLOYER

Provide at all reasonable times access to the Works and to other places of the contractor or Subcontractors where work is being prepared for the Contract.

3.4.20 DEFECTS IN EXISTING CONSTRUCTION

To be reported to Employer without delay. Obtain instructions before proceeding with work, which may:

Cover up or otherwise hinder access to the defective construction, or

Be rendered abortive by the carrying out of remedial work.

3.4.21 ACCESS FOR INSPECTION

Give Employer not less than 5 working days notice before removing scaffolding or other facilities for access.

3.4.22 PROPOSAL FOR RECTIFICATION OF DEFECTIVE WORK/PRODUCTS

As soon as possible after any part(s) of the work or any products are known to be not in accordance with the Contract, or appear that they may not be in accordance, submit proposals to CA for opening up, inspection, testing, making good, adjustment of the Contract Sum, or removal and re-execution.

Such proposals may be unacceptable by the Employer, and may issue contrary instructions.

WORK AT OR AFTER COMPLETION

3.4.23 GENERALLY

Make good all damage consequent to the work.

Remove all temporary markings, coverings and protective wrapping unless otherwise instructed. Clean the works thoroughly inside and out including all accessible ducts and voids, remove all splashes, deposits, efflorescence, rubbish and surplus materials consequent upon the execution of the work.

Cleaning materials and methods to be as recommended by manufacturers of products being cleaned, and to be such that there is no damage or disfigurement to other materials or construction.

Obtain COSHH dated data sheets for all materials used for cleaning and ensure they are used only as recommended by their manufacturers.

Touch up minor faults in newly painted/repainted work, carefully matching colour, and brushing out edges. Repaint badly marked areas back to suitable breaks or junctions.

Adjust, ease and lubricate moving parts of new work as necessary to ensure easy and efficient operation including doors, windows, drawers, ironmongery, appliances, valves and controls.

3.4.24 INSPECTIONS

At an agreed date, and when the works are substantially complete, all services tested and commissioned, the works will be inspected by the Employer. Any outstanding work arising from this inspection shall be completed prior to the date agreed for Practical Completion.

3.4.25 CLEANING

In addition to the generality of clause 3.40.23, the building shall be cleaned to the standards required for operational use as a clinical ward.

3.4.26 SECURITY AT COMPLETION

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Leave the works secure with all accesses locked. Account for and adequately label all keys and handover to Employer with itemised schedule, retaining duplicate schedule signed by Employer as receipt.

3.4.27 MAKING GOOD DEFECTS

Make arrangements with the Employer and give reasonable notice of the precise dates for access to various parts of the Works for purposes of making good defects. Inform Employer when remedial works to the various parts are completed.

3.5 SECURITY/SAFETY/PROTECTION

3.5.1 THE PRE-TENDER HEALTH AND SAFETY PLAN

To be prepared with assistance from the planning supervisor.

3.5.2 NOISE

Comply generally with the recommended BS 5228:Part 1, clause 9.3 for minimising noise levels during the excavation of the Works.

Fit all compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.

Do not use pneumatic drills and other noisy appliances at any time without consent of the Employer.

Do not use or permit employees to use radios or other audio equipment in ways or at times, which may cause nuisance.

3.5.3 POLLUTION

Take all reasonable precautions to prevent pollution of the site, the Works and the general environment including streams and waterways. If pollution occurs, inform the appropriate Authorities and the Employer with no delay and provide them with relevant information.

3.5.4 NUISANCE

Take all necessary precautions to prevent nuisance from smoke, dust, rubbish, vermin and other causes. Ensure all contractors personnel adhere to the Trust alcohol policy whilst working on site.

3.5.5 FIRE PREVENTION

Take all necessary precautions to prevent personal injury, death and damage to the Works or other property from fire. Comply with joint Code of Practice 'Fire Precaution on Construction Sites' published by the Building Employers Confederation and the Loss Prevention Council.

3.5.6 FIRE PRECAUTIONS

Allow for taking adequate precautions against fire and prior to work commencing obtain the approval of the CA to the precautions and the procedures to be adopted in the case of fire. Arrangements shall cover means of escape, provision of fire-fighting equipment, raising alarm, removal of accumulated rubbish, smoking restrictions, flammable materials and access through external working area of fire appliances.

3.5.7 FIRE POLICY

Smoking will not be permitted on the site.

3.5.8 BURNING ON SITE

Of materials arising from the work will not be permitted.

3.5.9 WATER

Prevent damage from storm and surface water. (Items for keeping the site and excavations free of water are given elsewhere).

3.5.10 MOISTURE

Prevent the work from becoming wet or damp where this may cause damage. Dry out the Works thoroughly.

Control the drying out and humidity of the Works and the application of heat to prevent:

Blistering and failure of adhesions, Damage due to trapped moisture, excessive movement.

3.5.11 WASTE

Remove rubbish, debris surplus material, spoil regularly, and keep the Site and Works clean and tidy.

Remove all rubbish, dirt and residue from voids and cavities in the construction before closing in.

Ensure that non-hazardous material is disposed of at a tip approved by a Waste Regulation Authority.

Remove all surplus hazardous material and their containers regularly for disposal off site in a safe and competent manner as approved by a Waste Regulation Authority and in accordance with the relevant regulations

Retain waste transfer documentation in site.

3.5.12 MILLENNIUM COMPLIANCE

Certify that equipment complies with PD 2000-1A: 'A definition of Year 2000 conformity requirements' published by BSI.

PROTECT THE FOLLOWING

3.5.13 WORK IN ALL SECTIONS

Adequately protect all types of work and all parts of the Works, including carried out by others, throughout the Contract. Whenever work is of an especially vulnerable nature or is exposed to abnormal risks, provide special protection to ensure that damage does not occur.

3.5.14 EXISTING SERVICES

Notify all service authorities and/or adjacent owners of proposed works not less than one week before commencing site operations.

Notify the client one-week before any proposed shutdowns or disruption to services. Indicate these shutdowns on the main programme of works

Before starting work, check positions of existing mains/services. Where positions are not shown on drawings, obtain relevant details from service authorities or other owners.

Observe service authority's recommendations for work adjacent to existing services.

Adequately protect, and prevent damage to all services. Do not interfere with their operation consent of the service authorities or their owners.

If any damage to services results from the execution of the Works, notify Employer and appropriate service authority without delay. Make arrangements for the works to be made good with out delay to the satisfaction of the service authority or other owners as appropriate. Any measures taken by the Employer to deal with an emergency will not affect the extent of the contractor's liability.

Replace any marker tapes or protective covers disturbed during site operations to the service authority's recommendations.

3.5.15 ROADS AND FOOTPATHS

Adequately maintain roads and footpaths within and adjacent to the site and keep clear of mud and debris. Any damage to roads and footpaths caused by site traffic or otherwise consequent upon the Works must be made good to the satisfaction of the Local Authority or other owner. Bear any costs arising.

3.5.16 TREES/HEDGES/SHRUBS/GRASSED AREAS

Adequately protect and preserve, except those which are to be removed. Replace to approval or treat as instructed any species or areas damaged or removed without approval.

3.5.17 EXISTING FEATURES

Prevent damage to existing buildings, fences, gates, walls, roads, paved areas and other site features which are to remain in position during the execution of the Works.

3.5.18 EXISTING FITTINGS

Protect existing fittings and furniture in occupied buildings.

3.5.19 EXISTING WORK

Prevent damage to existing property undergoing alteration or extension and make good to match existing, any defects so caused. Remove existing work the minimum necessary and with care to reduce the amount of making good to a minimum.

3.5.20 BUILDING INTERIORS

Protect building interiors exposed to weather during the course of alteration work with temporary enclosures of sufficient size to permit execution of the work and which will remain weather tight even in severe weather.

3.5.21 EXISTING STRUCTURES

Provide and maintain during the execution of the Works all incidental shoring, strutting, needling and other supports as may be necessary to preserve the stability of existing structures on the site or adjoining, that may be endangered or affected by the Works.

Support existing structure as necessary during cutting of new openings or replacement of structural parts.

Do not remove supports until new work is strong enough to support the existing structure. Prevent over stressing of completed work when removing supports.

3.5.22 CRIMINAL RECORDS BUREAU CHECK (CRB)

It is a requirement of The Princess Alexandra Hospital NHS Trust that all contractors and/or sub contractors who work on site in clinical areas or in the vicinity of vulnerable people must hold a CRB check and must not appear on the Vulnerable Adults List or Barred Children's list.

3.6 SPECIFIC LIMITATIONS ON METHODS/SEQUENCE/TIMING.

3.6.1 SCOPE

The limitations described in this section are supplementary to limitations described or implicit in information given in other sections or on the drawing.

3.6.2 SCAFFOLDING

Ensure that standing scaffolding is erected early enough and/or dismantled late enough to suit the programmes of all subcontractors.

3.6.3 COMPLETION IN SECTIONS OR PARTS

Where the employer is to take possession of any Section or Part of the Works and such Section or Part will, after it's practical completion, depend for it's adequate functioning on work located elsewhere on the site, complete such other work in time to permit such possession to take place.

During execution of the remainder of the Works, ensure that completed sections or Parts of the Works have continuous and adequate provision of services, fire precautions, means of escape and safe access.

3.7 FACILITIES/TEMPORARY WORKS/SERVICES

3.7.1 LOCATIONS

Inform Employer of the intended siting of all spoil heaps, temporary works and services.

3.7.2 MAINTAIN

Alter adapt and move temporary works and services as necessary. Clear away when no longer required and make good.

3.7.3 LIGHTING AND POWER

The permanent electrical installation may be used by the contractor, but the Employer does not undertake that it will be available.

Electricity for the Works will be supplied free of cost to the Contractor.

3.7.4 WATER

For the works will be supplied free of cost to the Contractor.

3.7.5 MOBILE TELEPHONES

Are not permitted in the Client's premises.

3.7.6 TEMPERATURE AND HUMIDITY

The permanent heating installation may be used for drying out the Works and controlling temperature and humidity levels but: The employer does not undertake that it will be available.

The contractor must take responsibility for operation, maintenance and remedial work, and arrange supervision by and indemnification of the appropriate Subcontractors and pay costs arising.

3.8 OPERATIONS/MAINTENANCE OF THE FINISHED BUILDING

3.8.1 THE BUILDING MANUAL

The building manual (incorporating the Health and Safety File and subtitled accordingly) is to be a comprehensive information source and guide for the Employer and end users providing a complete understanding of the building and its systems and enabling it to be operated and maintained efficiently and safely. The Planning Supervisor is required to obtain or prepare all the information to be included in the Manual, produce the required number of copies of the Manual and submit them to the Employer for checking by the Planning Supervisor and for delivery to the Employer.

The Manual is to consist of the following three parts sectioned as appropriate:

Part 1: GENERAL: content as clause 3.80.2, the information being provided to the Planning Supervisor by the employers agent.

Part 2: BUILDING FABRIC: Content as clause 3.80.3, plus certain as-built drawings and other information provided to the Contractor by the employers agent.

Part 3: BUILDING SERVICES: Content as clause 3.80.4

The presentation of this manual to be as clause 3.80.5

A complete draft of the manual must be submitted not less 2 weeks before the date of submissions of the final copies of the manual. Amend the draft manual in the light of any comments and resubmit to the employer. Do

not proceed with production of the final copies of the manual until authorised to do so by the employer.

Final copies of the manual: provide the Employer with 3 copies at practical completion.

As built drawings: provide 3 copies on paper folded to A4, and on computer disk in AutoCAD 2007 (dwg format).

3.8.2 THE BUILDING MANUAL PART 1 GENERAL INFORMATION must include:

A description of the building.

Details of ownership and all consultants and designer.

Details of all authorities plus copies of all consents and approvals obtained.

Names, addresses, telephone and fax numbers of all contractors, subcontractors, suppliers and manufacturers. (Contractors to provide data).

Any operational requirements and constraints of a general nature which are not relevant to other parts of the building manual.

The fire safety strategy for the buildings (s) including drawings showing emergency escape routes, locations (this clause is given purely for the contractors information)

3.8.3 THE BUILDING MANUAL PART 2: BUILDING FABRIC INFORMATION:

Provide such information as is reasonably required by the planning supervisor including:

Details of construction methods and materials which may present significant residual hazards with respect to cleaning maintenance or demolition for all contractor designed work performance specified work.

As - built drawing recording details of construction for all contractor designed work and performance specified work.

Copies of manufacturers current literature for all products for which the particular proprietary brand has been chosen by the contractor, including COSHH dated data sheets and manufacturers recommendations for cleaning and maintenance.

Copies of all guarantees, warranties and maintenance agreements offered by sub contractors and manufacturers.

Copies of all test certificates and reports required in the specification.

To enable the Employer to prepare 'as built' drawings submit to him marked up print at least 2 weeks before Practical completion identifying amendments to issued main constructional including sub structure and drainage, drawings.

3.8.4 THE BUILDING MANUAL PART 3: BUILDING SERVICES information must include:

A full description of each of the systems installed including services capacity and restrictions.

Diagrammatic drawings of each system indicating principal items of plant, equipment valves, service runs etc.

Legend for all colour -coded services.

Electrical circuit references and distribution boards charts. (to be shown on as - built drawings)

Schedules (system by system) of plant, equipment, valves etc., stating their locations, duties and performance figures. Each item must have a unique number cross referenced to the record and diagrammatic drawings and schedule.

The name, address and telephone number of the manufacture of every item of plant and equipment together with catalogue list numbers.

Manufacturer' technical literature for all items of plant and equipment, assembled specifically for the project, excluding irrelevant matter and including drawings, electrical circuit details an operating and maintenance instructions.

A copy of all test certificates (including but not limited to electrical circuit tests, corrosion tests, type tests, works tests, start and commissioning tests) for installations and plant, equipment, valves etc.

Used in the installations

A copy of all manufacturers' guarantees. Warranties and maintenance agreements offered by sub contractors and manufacturers.

Starting up, operating and shutting down instructions for all equipment and systems installed. Schedules of all fixed and variable equipment settings established during commissioning.

Procedures for seasonal changeovers.

Recommendations as to the preventative maintenance frequency and procedures to be adopted to ensure the most efficient operation of the systems.

Lubrication schedules for all lubricated items.

A list of normal consumable items.

A list of recommended spares to be kept in stock by the Employer, being those items subject to wear or deterioration and which may involve the employer in extended deliveries when replacements are required at some future date.

Procedures for fault finding.

Emergency procedures, including telephone numbers for emergency services.

3.8.5 PRESENTATION OF BUILDING MANUAL:

The part of the Manual that is the Contractor's responsibility is to be contained in a series of A4, plastic covered, loose-leaf binders with hard covers, each indexed divided and appropriately cover titled. Selected drawings needed to illustrate or locate items mentioned in the Manual, where larger than A4, are to be folded and accommodated in the binders so that they may be unfolded without being detached from the rings. The main set(s) of as-built drawings may form an annex(s) to the manual. The Contractor must include electronic versions of this document in Word, Excel and Autocad 2010 format on CD's.

3.8.6 TRAINING OF EMPLOYER'S STAFF:

Before Practical Completions the contractor is to explain and demonstrate to the Employer's staff the purpose, functions and operation of the installations including all items and procedures listed in the Building Manual. Include for not less than 1.0 operating days for this purpose.

3.9 CONTRACTORS HEALTH AND SAFETY REQUIREMENTS

The primary legal responsibility for the Health and Safety of their workforce and any people who may be affected by their work activities lies with the Contractor. However, without relieving the Contractor of any of his legal and contractual responsibilities this **Health and Safety Resume** has been produced to assist the Contractor in ensuring that safe working practises and measures are adopted whilst working at the Trust's sites.

The purpose of this document is to foster co-operation and form a partnership between the Trust and the Contractors to promote Health and Safety at Work. It is **not** the intention for it to be used as an excuse for **inactivity** by the Contractor, but sets out both the Trust's general requirements when working on their plant and systems, and **some** detailed requirements to avoid danger from significant specific hazards.

The information given in this resume is **not** intended to be exhaustive, but to illustrate the **nature** of the Trust's operations by referring to any hazards that are frequently met and/or are common sources of accidents.

3.9.1 CONTRACTOR'S OVERVIEW

In addition to their statutory responsibilities Contractors, Sub-Contractors and their employees and agents **shall** abide by the Trust's operational/administrative rules and procedures, including those for:

- Fire
- Evacuation
- First Aid
- Reporting of Serious Accidents/Incidents
- Permit-to-Work Systems etc.

- Special procedures for working in infectious areas and with biologically contaminated equipment.

Any of which that are relevant to the safe and smooth enactment of the contract.

In pursuance of the above the Contractor shall:

- a) Attend a Pre-Site Contract Meeting with a primary and functional aim of discussing the Health and Safety issues associated with the contract and agreeing a Health and Safety plan and implementation strategy.
- b) Nominate a safety representative to be directly responsible for the management of the day-to-day safety requirements of the contract, and as such, shall be the point of contact for the Project Manager on any issues pertaining to Health and Safety.
- c) Work within his company's general Health and Safety Policy requirements and the resultant Health and Safety management plan as agreed at the pre-site meeting.
- d) Describe and explain what actions are to be taken to implement and effectively comply with the Plan's Health and Safety requirements.
- e) Comply with all Orders, Regulations and By-Laws made by a competent authority that are applicable to the works, in such matters that may affect the Health and Safety of persons on or adjacent to the sites.

3.9.2 PROJECT ENGINEER LEAD MANAGER - CAPITAL AND ESTATES

The Project Lead shall nominate a **Project Manager**, whose responsibilities shall include liaising with the Contractor on Health and Safety aspects such that any operations by **any** party that affect any other with regards to Health and Safety can be made known and acted upon. **Such appointment will not relieve the Contractor from his own responsibilities for Health and Safety.** The Project Engineer shall be the Contractor's focal point for Health and Safety Issues. The Project Manager shall conduct a pre-site meeting to ensure that **before** the work is started the following significant Health and Safety issues shall be discussed and agreed:

- The Project manager shall make the Contractor aware of any potential hazards and their associated precautionary/control procedures established on site.
- The Contractor shall propose their Nominated Site Supervisor(s) and Competent Person(s). Before work is started they shall have undergone sufficient instruction and training to ensure that they are fully conversant with the Trust's Permitry Procedures, and certified as such in accordance with the Trust's documentation procedures.
- Site Emergency Procedures, including Emergency Evacuation.
- The Contractor's nominated Safety Representatives.
- Waste disposal procedure/environmental legislation compliance.
- Hazardous Substance Control.
- Possible impact of the Contractor's work activities on other people's activities.
- An effective communication system.
- The Project Managers limits of power and authority - such that he can stop work if in his opinion people's Health and Safety is being significantly compromised. The Contractors right to refer the matter to the Estates Manager in exceptional circumstances where the problems cannot be resolved at the working level.
- The Contractor's obligation to provide the Project Manager with any appropriate approved certification of competence/testing etc. i.e. fork lift trucks, lifting tackle inspections, crane use, scaffold erectors etc.
- The Project Managers and the Contractor's safety representative shall agree any activities that are considered to be **outside** the existing control measures and the **Contractor** shall produce a written **Method Statement** of how the job is to be undertaken safely. The Project Manager shall, in due course, assess the Method Statements by whatever means he considers appropriate (specialist services etc.), and agree to their implementation **prior** to the contractor imposing them on the work.
- Minutes of the meeting shall be taken by the Project Manager and circulated to the Contractors (and any Sub-Contractors) to authorise them as a true record of the meeting.

3.9.3 THE CONTRACTOR

All the Contractor's employees, including Sub-Contractors, shall be given appropriate induction training **specific** to the location and nature of the work. Induction shall include:

- The general site safety requirements, including permit systems
- Site emergency procedures
- Potential hazards
- Hazard control measures
- Precautionary measures

- Infection control procedures

All contract staff must be under proper supervision at **all** times when on the Trust's sites. Where Contractors are to work unsupervised (i.e. lone working) the circumstances and method of work shall be agreed with the Project Manager.

The Contractors, having been shown safe access to and egress from the work place, shall use it!

The Contractors shall only use fit for purpose tools and equipment, which must be in good repair. ***Under no circumstances should tools and equipment, including keys, be loaned to contractors from the Capital and Estates Department unless supervised by Estates personnel.*** Where necessary equipment shall be erected to the suppliers/ manufacturer's instructions.

Where Personal Protective Equipment is required for the work, it shall be provided by the Contractor. Failure by an employee to take proper care of the PPE or refusal to wear it shall normally result in dismissal from site following an initial verbal warning (confirmed in writing).

Whilst working the Contractors shall keep the work area as clean and tidy as practicable, and free from loose debris or any other obstructions. All floors and walkways must be kept clear of materials, tripping and slipping hazards (especially any wet work).

The Contractor shall exercise proper control over waste management, and shall ensure that the water systems (including drains) are not polluted (i.e. water jetting, chemical cleaning etc.), and the air is not polluted (i.e. dust, combustion products etc).

The Contractor shall record attendance at site of all his employees, including Sub-Contractors, so that their numbers can be readily accounted for in times of Fire or other emergency.

3.9.4 THE TRUST'S SAFETY PROCEDURE

General Safety:

In addition to the need to apply formal **Permit-to-Work** Systems to secure the Health and Safety of persons at work or those affected by the work, there is also need to assure and maintain the **General Safety to and from** the place of work **and** at the **vicinity** of the place of work. Hence, before work is started, it is the personal responsibility of the Contractor's Supervisor to satisfy himself that appropriate Health and Safety precautions are taken to establish **General Safety** at and in the **vicinity** of the workplace, and that the access/egress route(s) shown to him by the Project Manager are used as instructed and kept safe.

Once the work has started the Contractor's Competent Person in charge of the work shall **continue** to maintain conditions which ensure **General Safety**. He shall also ensure that his work activities do not adversely affect other work areas.

The Safety Rules Procedures:

Whenever work on the Trust's contract is subject to the Trust's **Safety Rules** the Contractor **shall** comply with them.

The Contractor shall nominate Supervisor(s) and Tradesmen to undergo the appropriate induction training and assessment to enable them to be certified as Competent under the Trust's Safety Rules to receive and clear specified safety documents.

The induction training shall comprise an awareness of the philosophy and basic principles behind the Safety Rules and detail the procedures associated with the issue, operation and clearance of specified Safety Documents. This shall include Permit Locks, Key Safes, **Danger** and **Caution Notices**, Safe Retention of the Safety Document etc. The Contractor's Competent Person(s) shall be assessed by an Authorised person for competency (within the context of the Safety Rules), and be certified in writing to that effect.

The Project Manager may, for whatever reason he considers appropriate, refuse to accept a person nominated by the Contractor. The Contractor shall have redress through the Authorised Person.

The Contractor shall be made fully aware of the requirement for a **controlled release** of plant/apparatus. Due to the possible operational implications, which at a hospital site may well be dire in terms of patient safety and

well being, arranging for system shut downs will need careful planning. As such these shall be given due consideration as part of the Permit System Process, including proper and timely notification for the requirement for a Safety Document, through the proper procedures and request pro-forma.

As much notice as practicable of the requirement for equipment isolations and their attendant Safety Documents shall be given by the Contractor's Supervisor. Plant/apparatus shall be returned to the agreed programme, delays can be costly in more ways than simply money.

3.10 SITE RULES FOR CONTRACTORS

3.10.1 LOCATION OF SITE ACCESS AND EGRESS (INTERNAL)

Access routes within buildings on Trust Sites will be specified in the tender documentation as agreed at the preliminary site meeting with the Project Manager prior to commencing works. Trust staff, patients and visitors may also use these routes. It is the contractor's responsibility to ensure all access routes are kept clean and clear of debris at all times and checked regularly, i.e. at least once a day by a designated site operative.

3.10.2 LOCATION OF SITE ACCESS AND EGRESS (EXTERNAL)

Access routes into Trust sites will either be specified (with a site plan) in the Tender Documents or agreed at the preliminary site meeting with the Project Manager prior to works commencing. It is the contractor's responsibility to ensure that accumulations of mud and debris are cleared immediately they appear and that all access roads into site areas are maintained in a safe manner at all times for general site traffic.

3.10.3 LOCATION OF TEMPORARY SITE ACCOMMODATION

If sufficient reason exists, the Trust may agree to the siting of temporary accommodation for the contract period in a suitable location. This will either be specified in the tender documentation or agreed with the Project Manager at the preliminary site meeting. It will be the contractor's responsibility to install, maintain and remove on completion any temporary services to temporary accommodation. All with the agreement of the Project Manager.

3.10.4 SERVICES TO BE PROVIDED TO THE CONTRACTOR

Water and electricity will be provided from the nearest convenient take off point if agreed during the Tender stage or before work commences with the Project Manager. It will be the contractor's responsibility to install, maintain and remove on completion temporary supplies as necessary to enable the works and to reinstate services and finishes, all in accordance with legislation current at that time. Welfare facilities for the Contractor's site staff may be available on a project specific basis. When not available, the Contractor will provide these facilities on a basis agreed with the Project Manager.

3.10.5 LOCATION OF LOADING AND STORAGE AREAS

Unloading areas may be allocated at specific times in certain locations by agreement with the Project Manager. Storage areas will be allocated in a similar way to temporary accommodation. Special requests for short-term storage should be made to the Project Manager. Generally no internal storage within existing buildings will be provided unless designated within tender documentation.

3.10.6 CONTRACTOR PARKING

Because of the lack of parking spaces available for contractors on the site, a limited number of designated spaces may be made available, with the agreement with the Project Manager. All other contractors parking will abide by the Trust's visitors parking permit scheme. The permit must be clearly displayed in the vehicle at all times. Failure to park in the designated parking area or failure to display a valid parking permit could lead to the Contractor being fined. The contractor will be held responsible for paying such fines for its vehicles.

3.10.7 DELIVERY OF MATERIALS

Unless otherwise stated in the contract documentation, delivery of materials to the contractor's site should normally occur between 6.00am and 8.30am, to minimise disruption to Trust staff and patients. Deliveries outside of these allocated times and at weekends may be agreed with the Project Manager. All deliveries likely to cause an obstruction must be discussed with the Project Manager, so that suitable traffic control

arrangements may be agreed. Waiting areas for delivery vehicles etc will also have to be agreed with the Project Manager.

3.10.8 CONTRACTOR'S RESPONSIBILITY FOR TRAFFIC CONTROL

Contractors involved in works resulting in the restriction of access on Trust roads should provide traffic control equipment, they should also be aware that emergency vehicles will have priority over any traffic signals in use and are not to be obstructed at any time.

3.10.9 IDENTITY BADGES

All Contractors will be issued with the Trust's 'Estates Contractor' identity badge, which is to be worn whenever on Trust premises. Individuals not wearing badges will be asked to leave site.

3.10.10 DISABLED ACCESS/EGRESS

Disabled access routes must not be obstructed under any circumstances unless they form part of the site area and alternative arrangements have been agreed.

3.10.11 PEDESTRIAN ROUTES

In addition to the movement of vehicles on site access roads, patients on trolleys and beds will also be moved through some of these areas. Contractors must ensure full access for trolleys, beds and equipment is maintained at all times.

3.10.12 THE 'PERMIT TO WORK' SYSTEM

Permits to work will be required from the Operational Estates manager, before starting any work regarding the following: -

- Medical Gas Systems
- High Voltage Systems
- Theatre Clean/Vent Systems
- Magnetic Resonance Imaging Controlled Area
- Fume Cupboards
- Areas of Controlled Radioactivity. Radioactive Waste Drains
- Hot Works on Fire Risk Activities. Pressure Vessels
- Confined Spaces
- Isolation of Electrical Systems
- Isolation of Water Services
- Natural Gas Installations
- Excavation

Once issued the conditions of the permit must be strictly adhered to at all times.

3.10.13 FIRE AND FIRE RISK ACTIVITIES

All Contractors involved in fire risk activities should ensure that they take measures to minimise risk wherever possible by removing any combustible materials and providing adequate fire fighting equipment. When undertaking any fire risk activity all such work should cease at least half an hour prior to the end of the working day. An employee must be designated to check the site prior to leaving.

Existing fire detectors sited within contractors working area shall be temporary isolated and protected with dust covers. This shall be in agreement with the Operational Estates Manager, and Project Manager. In the event of a fire break out, the procedure on the Princess Alexandra Site is described in section 3.10.14.

3.10.14 FIRE PROCEDURE: WITHIN HOSPITAL BUILDINGS

All contractors should make themselves aware of the local fire safety plan for the ward/department in which they are working so as to establish the predetermined location for assembly within the ward/department.

An intermittent sounding of the fire alarm sounders means there may be a fire in an adjacent ward/department.

A continuous sounding fire alarm is an instruction to evacuate the ward/department /building.

On detecting a fire

1. Remove persons from immediate danger.
2. Sound alarm by breaking glass of fire alarm call point.
3. Shut doors and windows adjacent to the fire.
4. Do not call switchboard.
5. Attack fire only if this can be done without jeopardising personal safety.

On hearing an intermittent fire alarm

6. Prepare for evacuation by clearing escape routes for patients and staff.
7. Go to ward/department predetermined location.
8. Await further instruction from Hospital staff

On hearing a continuous fire alarm

9. Prepare for evacuation by clearing escape routes for patients and staff.
10. Leave the ward/department/building by the nearest available exit. Close fire doors as you go.
11. **Do not use lifts.**
12. **Do not** re-enter the ward/department/building until instructed to do so by the Hospital Fire Response Team, or Fire Service.

Should evacuation of an area be necessary, this will be co-ordinated at the scene of the fire by the Hospital Fire Response Team, or Fire Service.

3.10.15. SPECIFIC SITE HAZARDS

The Trust will inform the Contractor of any known specific site hazards prior to commencement of work.

3.10.16 NOISE AND VIBRATION LEVELS

Contractors should ensure that noise and vibration levels created within their site are kept to a minimum at all times. Equipment that generates high levels of noise or excessive vibration should be substituted for less noisy or disruptive equipment where possible or adequately damped, silenced and soundproofed. Engine driven plant should only be operated during agreed hours or as specified within the project specify details of the tender documents.

Radios or other audio equipment are prohibited on all Trust premises (including contractor's designated site areas and compounds). These devices may cause considerable disturbance to patients and staff, disrupting clinical treatment and as a result must not be used.

3.10.17 CONTROL OF DUST, FUMES AND DEBRIS

All operations that produce dust (e.g. disc cutting, chasing, high-speed sawing etc) in excess of 10 milligrams of dust per cubic metre of air (10 mgjm³) averaged out over eight hours, or any respirable dust in excess of 5 mgjm³ averaged over eight hours is deemed to be a substantial concentration of dust and therefore within the definition of substance hazardous to health (COSHH).

Dust producing equipment is to be controlled at source with local exhaust ventilation or dust suppression tools to the satisfaction of the Project Manager. All work areas are to be suitably sealed against dust breakout to other areas, and where required to control dust breakout measures such as double doors or air locks are to be supplied.

All temporary screens to be constructed out of fire retardant materials, of a suitable nature to fully contain any expected hazards. Approval of method statement to control dusts to be gained prior to starting work from the Project Manager.

Working areas to be cleaned as required by means that do not promote dust transfer. When requested by the Project Manager, air and environmental monitoring of the building works and adjacent areas will be required.

HSG (95) 10 Hospital Infection Control
The Health and Safety at Work Act 1974
The Control of Pollution Act 1974
The Management of Health and Safety at Work Regulations 1999

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Tender No xxxxx

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The Control of Substances Hazardous to Health Regulations 2002
The Construction (Health, Safety and Welfare) Regulations 1996
Debris should be disposed of in accordance with the Trust's Waste Disposal Policy.

3.10.18 CONTRACTORS WORKING HOURS

Normal working hours on Trust sites will be between 7.30am and 6pm Monday to Friday. Weekend and out of hours working will be agreed with the Project Manager.

3.10.19 ACCIDENTS/INCIDENTS

Any dangerous occurrences/incidents as defined in RIDDOR should be immediately reported to the HSE and the Project Manager. Accidents/incidents which fall outside the scope of the RIDDOR should be recorded in the normal way and copies of the reports handed to the Project Manager at the next scheduled Site Meeting or on the completion of works, whichever is sooner.

3.10.20 ELECTRICAL TOOLS

All electrical tools used by contractors must be either 110 vac or 240 vac and RCD protected and with an up-to-date test certificate available for inspection.

3.10.21 SMOKING

The Trust has a no smoking policy in all buildings including areas temporarily forming contractors working areas.

3.10.22 INFECTION CONTROL

The Princess Alexandra Hospital NHS Trust requires that all contractors follow Trust guidance and infection control policy with regard to hand washing requirements for preventing spread of infection. Hand hygiene advice for patients and visitors is noted below:

Washing with soap and water

Germ that naturally live on the skin and normally cause few problems may be more serious when brought into a hospital.

These germs are often passed from one person to another by physical contact so it's important that patients, visitors and nursing staff cut the risk of spreading infections by regularly cleaning their hands. It is especially important:

- before eating (both snacks and meals);
- after using the toilet, bathroom or commode;
- whenever you can see your hands are dirty.

It's also important to remember the following:

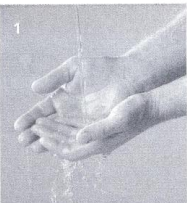







- remove rings or jewellery before cleaning your hands;
- keep your nails short, as this will make it easier to clean your hands properly;
- if you have wound dressings, stitches or catheters try not to touch them any more than is absolutely necessary.

Advice for visitors

Generally, visitors should follow the same hand hygiene guidelines as we have listed for patients.

Please clean your hands as soon as possible when arriving at the hospital or at the entrance of the ward that you're visiting. It's likely that your hands won't be visibly dirty so using hygienic hand rub should be all that's required. If you intend to visit more than one ward, please clean your hands before entering each new ward.

Following these guidelines ensures that all parts of the hands are cleaned. It should take at least 15 seconds to complete.

 <p>1</p> <p>Wet hands and apply soap.</p>	 <p>2</p> <p>Rub hands together, palm to palm.</p>	 <p>3</p> <p>Right palm over back of left hand and then left palm over back of right hand.</p>	 <p>4</p> <p>Rub palm to palm with fingers interlaced.</p>
 <p>5</p> <p>Backs of fingers to opposing palms with fingers interlocked.</p>	 <p>6</p> <p>Hold right thumb in left hand and rub. Repeat with left thumb in right hand.</p>	 <p>7</p> <p>Rub clasped fingers of right hand in left palm and vice versa.</p>	 <p>8</p> <p>Rinse, and dry hands thoroughly, ideally using a paper towel.</p>

3.10.23 FITNESS FOR WORK

The Princess Alexandra Hospital NHS Trust requires that all contractors working on the Trust's site are, at all times, fit for work. The Trust retains the right to request that individuals leave the site if they are unfit for work for reasons of alcoholism, drug taking, injury, tiredness or any other reason that may affect the standard of workmanship or the health and safety of members of the public or hospital staff within the area.

3.10.24 STANDARDS OF DRESS

All contractors will report to work in suitable clean clothing. the following items of clothing are examples of unacceptable clothing, either on the grounds of health and safety or for the Trust's public image: Denim jeans or skirts, track suits, casual sports t-shirts, leisure shorts, combat trousers, sweat-shirts, baseball caps/hats, overly tight or revealing clothes, clothing bearing inappropriate slogans, the wearing of shorts is not acceptable, neither are bare chests. Dirty clothes or overalls will not be worn in public or patient areas. Clothing must be suitable for the task being carried out. Personal protective equipment will be worn wherever applicable. Footwear must be safe, sensible, in good order, smart and clean and have regard to Health and Safety considerations. Visible tattoos are to be discouraged and where present should not be offensive to others. Where they are deemed to be offensive they should be appropriately covered. Jewellery should be discreet and appropriate and not cause offence or be a health and safety hazard. Facial/body piercing are not permitted and must be removed before coming on site, piercings for religious or cultural reasons must be covered. Hair should be neat and tidy at all times. Headwear worn for religious purposes are permitted. All contractors must display a high standard of personal hygiene.

3.10.25 HOSPITAL EQUIPMENT

The use and borrowing of Hospital equipment or tools is not acceptable and contractors should ensure that they have sufficient equipment to carry out the work specified.

3.10.26 TWO-WAY RADIOS AND CELL PHONES

There is a risk to patients from radio frequency transmissions interfering with electro-medical equipment. As a result the use **of two-way radios by contractors is prohibited.**

There is a risk that when cell-phones are turned on they transmit signals back to their cell-net base regardless of whether they are monitoring, receiving or transmitting calls. Cell phones must be turned off to be safe. The risks will be controlled by a total ban on the use of cell-phones within all areas of the hospital and up to 10 metres from those buildings, this includes corridors and circulation areas. This means that cell phones may only be turned on outside, 10 metres away from any buildings.

3.10.27 ASBESTOS

The Trust maintains a register of all known locations of Asbestos existing on the Trusts premises. This register must be checked before any work starts on any construction site on any part of the Trust's site.

No work shall be carried out on any suspected asbestos bearing materials by any person who is not suitably trained. No testing or analysing shall be carried out by any person or laboratory that has not gained N.A.M.A.S. or similar accreditation. No work shall be carried out on any asbestos material without written instructions from the Trust's representative, this can be given in the form of a specification Site Instruction.

Any Contractor finding what he believes to be an Asbestos bearing material on any of the Trust's premises should stop work immediately and bring it to the attention of the Trust's Project Manager or representative who will, if deemed necessary, suspend all further work until the affected areas are made safe.

3.10.28 ASBESTOS LABELLING

The Trust has adopted the H.S.E. suggested working for the Asbestos warning labels.

3.10.29 THE MENTAL HEALTH ACT

Contractors need to be aware that certain works undertaken on the Trust's premises will bring contractors into contact with patients admitted under the Mental Health Act. These patients may be uninhibited or disruptive and contractors may need to put in place additional measures on site that would minimise the risk to this group of patients.

CONTRACTORS GENERAL COST ITEMS

Section 4.00

4	CONTRACTOR'S GENERAL COST ITEMS	£
4.1	MANAGEMENT AND STAFF	
4.2	SITE ACCOMMODATION	
4.3	SERVICES AND FACILITIES	
4.3.1	POWER	WILL BE SUPPLIED
4.3.2	LIGHTING	
4.3.3	FUELS (excluding fuels for testing and commissioning)	
4.3.4	WATER	WILL BE SUPPLIED
4.3.5	TELEPHONE AND ADMINISTRATION	
4.3.6	SAFETY, HEALTH AND WELFARE	
4.3.7	STORAGE OF MATERIALS	
4.3.8	RUBBISH DISPOSAL	
4.3.9	CLEANING	
4.3.10	DRYING OUT	
4.3.11	PROTECTION OF WORK IN ALL SECTIONS	
4.3.12	SECURITY	
4.3.13	MAINTAIN PUBLIC AND PRIVATE ROADS	n/a
4.3.14	SMALL PLANT AND TOOLS	
4.3.15	GENERAL ATTENDANCE ON NAMED / NOMINATED SUBCONTRACTORS	
4.4	MECHANICAL PLANT	
4.4.1	CRANES	
4.4.2	HOISTS	
4.4.4	TRANSPORT	
4.4.8	PAVING AND SURFACING PLANT	n/a
4.5	TEMPORARY WORKS	
4.5.1	TEMPORARY ROADS	n/a
4.5.3	ACCESS SCAFFOLDING	
4.5.4	SUPPORT SCAFFOLDING AND PROPPING	
4.5.5	HOARDINGS, FANS, FENCING ETC	
4.5.6	TEMPORARY SCREENS	
4.5.7	HARDSTANDING	
4.6	WORK BY OTHERS	
4.7	BY EMPLOYER	
4.8	PROVISIONAL SUMS	
	Additional Costs to be added to overall	

	Tender Cost	
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FORM OF TENDER

Section 5.00

5.00 FORM OF TENDER

TO: **THE PRINCESS ALEXANDRA HOSPITAL NHS TRUST**
FOR:
AT: **PRINCESS ALEXANDRA HOSPITAL HARLOW**
JOB NO:
TENDER NO: **T.....**

I/We hereby undertake to enter into a contract to execute and complete the whole of the works described, implied or referred to in the documents inviting a tender.

for the sum of £.....

(sum in words)

.....

Exclusive of Value Added Tax which will be added at the appropriate rate.

I/we agree that should obvious errors in pricing or errors in arithmetic be discovered before acceptance of this offer in the priced bill and Specifications submitted by me/us these errors will be dealt with in accordance with Alternative 1 contained in section 6 of the N.J.C.C. Code of Procedure for Single Stage Selective Tendering 1996.

We agree that this tender remains open for acceptance for a period of 4 months from the date of tender.

The submission of this tender is deemed to imply that the tender is bona fide (please sign separate form) and that I/we have not divulged the tender price and further that I/we have taken all necessary steps to ensure that it will not be divulged to any person or body before 28 days after the day that tenders are to be submitted to The Princess Alexandra Hospital NHS Trust.

Signature:

Printed:

Status:

Name of Contractor:

Address:

.....

Date:

Signature of witness
to Signatory:

TENDER CERTIFICATE

TO: **THE PRINCESS ALEXANDRA HOSPITAL NHS TRUST**
TENDER FOR: **Supply and install 2 condense receiver**
AT: **THE PRINCESS ALEXANDRA HOSPITAL - HARLOW**
RETURNABLE BY: **21/12/2017 @ 12:00 noon**

The essence of selective tendering is that the client shall receive bona fide competitive tenders from all those tendering. In recognition of this principle, we certify that this is a bona fide tender, intended to be competitive, and that we have not fixed or adjusted the amount of the tender by or under or in accordance with any agreement or arrangement with any other person. We also certify that we have not done and we undertake that we will not do at any time up to 28 days after the date specified for the return of this tender any of the following acts:-

- a) Communicating to a person other than the person calling for those tenders the amount or approximate amount of the proposed tender, except where the disclosure, in confidence, of the approximate amount of the tender was necessary to obtain insurance premium quotations required for the preparation of the tender;
- b) Entering into any agreement or arrangement with any other person that he shall refrain from tendering or as to the amount of any tender to be submitted;
- c) Offering or paying or giving or agreeing to pay or give any sum of money or valuable consideration directly or indirectly to any person for doing or having done or causing or having caused to be done in relation to any other tender or proposed tender for the said work any act or thing of the sort described above.

In this certificate, the word "person" included any persons, any body or association, corporate or un-incorporate; and "any agreement or arrangement" includes any such transaction, formal or informal, and whether legally binding or not.

Signed

.....
(To be signed by a Director, Company Secretary, Partner or Sole Principal)

Print Name

.....

Position

.....

On behalf of

.....

Date

.....

Solar PV Scope of worksSection 6.00