

APPENDIX “B”

DETAILED TERMS OF THE
PRELIMINARIES

ItemAPPENDIX BPRELIMINARIES**A10 - PROJECT PARTICULARS**

- A 110 THE PROJECT:
 Name: Measured Term Fire Stopping Contract
 Nature: Fire Stopping Works
 Location: Locations as defined in Clause A12:110
 Timescale: Timescale for completion of the construction work: as stated in each Order
- B 120 EMPLOYER (CLIENT):
 The Horniman Public Museum and Public Park Trust
 100 London Road, London, SE23 3PQ
- C 126 THE PRINCIPAL CONTRACTOR:
 The Contractor
- D 131 CONTRACT ADMINISTRATOR ('CA'):
 T. Hopkins, Esq.,
 Head of Estates,
 Horniman Museum,
 100 London Road,
 London, SE23 3PQ
 Tel 020 8291 8680
- E 147 CDM PRINCIPAL DESIGNER:
 To be appointed if required.

A11 - TENDER AND CONTRACT DOCUMENTS

- F 180 INSPECTION:
 Drawings and other documents relating to the Contract but not included in the tender documents may be seen by appointment during normal office hours at the office of the Contract Administrator.
- The documents include:
 Occupier's Rules and Regulations
 Safety Handbook

A12 - THE SITE / EXISTING BUILDINGS

- G 110 THE SITES:
 The sites are to include all built structures and external areas at the following locations:
- The Horniman Museum, 100 London Road, London, SE23 3PQ
 - The Museum Study Collection Centre, Old School Close, off Millennium Way, London, SE10 0PG

Item**A12 - THE SITE / EXISTING BUILDINGS**

- A 110 THE SITES:
The sites are to include all built structures and external areas at the following locations:
- The Horniman Museum, 100 London Road, London, SE23 3PQ
 - The Museum Study Collection Centre, Old School Close, off Millennium Way, London, SE10 0PG
- B 115 THE EXISTING BUILDINGS:
The Horniman Museum's primary function is the safekeeping and public display of important artefacts and the Works must cause the minimum amount of intrusion / disruption to these functions.
- Horniman Museum: The museum is a Grade II* listed building; the main museum building was built in 1901 with extensions constructed in 1911, during the 1930's and 2002. The buildings are of great importance and the contractor is to ensure that all work is executed so as to ensure that no damage to the building occurs. This applies not only to the immediate area of the work being executed but also to the external gardens / access routes to and from the place(s) of work. Ensure all necessary precautions are maintained for the proper protection of the building fabric.
- The museum exhibits, stores, maintains and restores artefacts which are of significant historical importance and cannot be replaced. The Contractor must ensure that all necessary measures are implemented to protect these artefacts, see section A35.
- Study Collection Centre: The building is a former London School Board three-storey primary school built at the turn of the century. Although not a listed building the protection measures referred to in connection with the museum also apply to this building.
- Artefacts are also displayed/stored here and the same conditions referred to in connection with the museum also apply here.

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- A 140 EXISTING MAINS/SERVICES:
The Contractor will be responsible for checking the location of existing services that may affect the Work.
- B 185 HEALTH AND SAFETY FILE:
A health and safety file for the site / building is available for inspection by appointment during normal office hours at the office of the Contract Administrator.
- C 200 ACCESS TO THE SITES:
Horniman Museum:
 - Personnel - via the Security Desk located at the clock tower entrance
 - Vehicles (for deliveries only) - by prior agreement with the Contract Administrator and arranged through the Main Entrance Security Staff
 Study Collection Centre:
 - Personnel - via the gate, with intercom operated by Museum staff in Old School Close (off Millennium Way)
 - Vehicles (for deliveries only) - available throughout normal opening hours.
 Work areas:
 - Access to work areas associated with each work area, routes for delivery of materials and removal of waste will be defined and agreed prior to the commencement of the work associated with each Order.
- D 210 PARKING:
Parking of the Contractor's and employees' vehicles on site for identified company vehicle will be provided at each site, although this may be curtailed at the Horniman Museum site if other works restrict the areas used for parking. Parking for other vehicles must be off-site.
- E 240 RISKS TO HEALTH AND SAFETY:
The nature and condition of the site / building cannot be fully and certainly ascertained before it is opened up. However the following risks are or may be present:
 - Areas in the Store do contain materials with an asbestos content. Asbestos based materials may be found in any location at both sites.

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ItemA12 (Contd.)

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- The Works will involve working with live services. A survey of the most recent installations is available but older installations are not recorded. Take necessary precautions to establish the status of existing services before commencing Works involving alteration of the existing services
- The accuracy and sufficiency of this information is not guaranteed by the Employer or the CA and the Contractor must ascertain for himself any information he may require to ensure the safety of all persons and the Works.

The Contractor must notify the CA if he suspects that an area contains asbestos. If the Contractor finds asbestos whilst working in an area work must be stopped immediately and the CA informed. The Contractor will be responsible for erecting signs to the areas where asbestos is found. No person should enter this area without the express permission of the CA.

- A 290 SITE VISIT:
The Contractor shall examine the brief and inspect the site and its surroundings and shall be deemed to have made himself thoroughly acquainted with the working conditions, the nature and construction of the buildings, all local and existing conditions, means of access, parking and unloading regulations, working and storage space, facilities generally, and all other matters which might affect his tender. He should also ascertain the supply conditions affecting labour and the availability and supply of water and electric power.
- A site visit may be made by appointment with Mr Paul Williams, Facilities Manager (Tel 020 8699 1872 - Ext. 164)

A13 - DESCRIPTION OF THE WORK

- B 120 THE WORK:
Fire stopping works to the internal building fabric at the sites referred to in A12:110. The Works will comprise separate Orders for work as required from time to time during the Contract.

A20 - THE CONTRACT

- C As detailed in Section No. 1 of this document

Item**A30 - TENDERING / SUBLETTING / SUPPLY****MAIN CONTRACT TENDERING**

- A 110 SCOPE:
These conditions are supplementary to those stated in the invitation to tender and on the Form of Tender.
- B 120 TENDERING PROCEDURE:
The tendering procedure will be in accordance with the principles of the 'Code of Procedure for Single Stage Selective Tendering' 1996.
- C 170 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.
- D 190 PERIOD OF VALIDITY:
Tenders must remain open for consideration (unless previously withdrawn) for not less than 8 weeks from the date fixed for the submission or lodgement of tenders.

PRICING/SUBMISSION OF DOCUMENTS

- E 270 ERRORS IN THE PRICED DOCUMENTS:
Errors in the priced documents will be dealt with in accordance with the Code of Procedure for Single Stage Selective Tendering' 1996 Alternative 1.
- F 535 SUBSTITUTE PRODUCTS:
If the Contractor wishes to substitute products of different manufacture to those specified, details must be submitted with the tender giving reasons for each proposed substitution. Substitutions, which have not been notified at tender stage, may not be considered. Substitutions sanctioned by the CA will be subject to the verification requirements of clause A31/200.
- G 550 HEALTH AND SAFETY INFORMATION:
A statement must be submitted with the tender describing the organisation and resources which the contractor proposes and undertakes to provide to safeguard the health and safety of operatives, including those of subcontractors and of any person who may be affected by the works, including:
 - A copy of the contractor's health and safety policy document, including risk assessment procedures.

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- Accident and illness records for the past five years.
- Records of previous Health and Safety Executive enforcement action.
- Records of training and training policy.
- The number and type of staff responsible for health and safety on this project with details of their qualifications and duties.

Where such information has been supplied to the Employer within the previous six months, provide details of that submission and either confirm that the information is still valid or provide updated information where appropriate.

SUBLETTING/SUPPLY

- A 635 DOMESTIC SUBCONTRACTORS:
Submit a list identifying all known subcontractors and the work for which they will be responsible.

A31 - PROVISION, CONTENT AND USE OF DOCUMENTSDEFINITIONS AND INTERPRETATIONS

- B 130 IN WRITING:
When required to advise, notify, inform, instruct, agree, confirm, obtain information, obtain approval or obtain instructions to do so in writing.
- C 140 APPROVAL:
Approval (and words derived there from) means the approval in writing of the CA unless specified otherwise.
- D 150 PRODUCTS:
Products means materials (including naturally occurring materials) and goods (including components, equipment and accessories) intended for permanent incorporation in the Works.

ItemA31 (Contd.)

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| A | 180 | <p>CROSS REFERENCES TO THE SPECIFICATION:</p> <ul style="list-style-type: none"> • Where a numerical cross-reference to a specification section or clause is given on drawings or in any other document the Contractor must verify its accuracy by checking the remainder of the annotation or item description against the terminology used in the referred to section or clause. • Where a numerical cross-reference is not given the relevant section(s) and clause(s) of the specification will apply, cross-reference thereto being by means of related terminology. • Where a cross-reference for a particular type of work, feature, material or product is given, relevant clause(s) elsewhere in the referred to specification section dealing with general matters, ancillary products and workmanship also apply. • The Contractor must, before proceeding, obtain clarification or instructions in relation to any discrepancy or ambiguity, which he may discover. |
| B | 200 | <p>EQUIVALENT PRODUCTS:</p> <ul style="list-style-type: none"> • 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 CA 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 compatible 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 CA. |
| C | 201 | <p>EQUIVALENT PRODUCTS:</p> <ul style="list-style-type: none"> • Wherever products are specified by proprietary name and the phrase 'or equivalent' is not included, it is to be deemed included. |

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A 210 BRITISH STANDARD PRODUCTS:
Where any products 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, function, compatibility with adjacent construction, availability of compatible 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. Any submitted foreign language documents must be accompanied by certified translations into English.

B 220 REFERENCES TO BSI DOCUMENTS:
References to BSI documents are to the versions and amendments listed in the BSI Standards Catalogue

TERMS USED IN REFURBISHMENT/ALTERATION

C 311 REMOVE:
Means disconnect, dismantle as necessary and remove the stated element, work or components and all associated accessories, fastenings, supports, linings and bedding materials, and dispose of unwanted materials. It does not include removing associated pipework, wiring, ductwork or other services.

D 321 KEEP FOR REUSE means:

- During removal prevent damage to the stated components or materials, and clean off bedding and jointing materials.
- Stack neatly, adequately protect and store until required by the Employer or for use in the Works as instructed.

E 331 REPLACE means:

- Remove the stated existing components, features and finishes.
- Provide and fit in lieu new components, features and finishes which, unless specified otherwise, must match those which have been removed.
- Make good as necessary.

ItemA31 (Contd.)

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| A | <p>341 REPAIR:
Means carry out local remedial work to components, features and finishes as found in the existing building. Resecure or refix as necessary and leave in a sound and neat condition. It does not include:</p> <ul style="list-style-type: none"> • Replacement of components or parts of components. • Redecoration. |
| B | <p>351 MAKE GOOD:
Means carry out local remedial work to components, features and finishes which have been disturbed by other previous work under this Contract and leave in a sound and neat condition. It does not include:</p> <ul style="list-style-type: none"> • Replacement of components or parts of components. • Redecoration. <p>The meaning of the term shall not be limited by this definition where used in connection with the defects liability provisions of the Contract.</p> |
| C | <p>371 TO MATCH EXISTING:
Means use products, materials and methods to match closely all visual characteristics and features of the existing work, with joints between existing and new work as inconspicuous as possible, all to approval of appearance.</p> |
| <p><u>DOCUMENTS PROVIDED ON BEHALF OF EMPLOYER</u></p> | |
| D | <p>405 OMISSIONS OR ERRORS:
Omissions or errors in the Specification and/or Drawings shall not vitiate the Contract nor release the Contractor from any of his obligations or liabilities under the Contract.</p> |
| E | <p>415 ADDITIONAL COPIES OF DRAWINGS:
Two copies of drawings will be issued to the Contractor. Additional copies will be issued on request but will be charged to the Contractor.</p> |
| F | <p>440 DIMENSIONS
The accuracy of dimensions scaled from the drawings is not guaranteed. Obtain from the CA any dimensions required but not given in figures on the drawings nor calculable from figures on the drawings.</p> |

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- A 470 DIVERGENCE FROM STATUTORY REQUIREMENTS:
As soon as is practicable inform the CA of any divergence which may be discovered between the drawings or specification and the requirements of the Building Regulations, other Statutes, statutory undertakers and other regulatory authorities. The CA will within 7 days of receipt of such notices give written instructions on how such divergence is to be dealt with.

DOCUMENTS PROVIDED BY CONTRACTOR / SUBCONTRACTORS / SUPPLIERS

- B 525 CONTRACTOR'S DESIGN: DESIGN AND PRODUCTION INFORMATION:
- Complete the design and detailing of part(s) of the Works as specified and provide complete production information (including, as appropriate, fabrication/installation drawings, all design calculations, specifications, etc.) based on the drawings, this specification and other information provided, liaising with the CA and others as necessary to help ensure co-ordination of the work with related building elements and services.
 - When preparing the Programme make reasonable allowance for completing design/production information, including submission to the CDM Co-ordinator for comment, inspection by the CA, and any subsequent amendment(s), resubmission(s), and reinspection(s).
 - During the Contract submit to CA the required number of copies of design / production information. The CA will note his comments on one copy, then return to the Contractor.
 - Ensure that any necessary amendments are made without delay. Unless and until the CA confirms his approval, submit copies of amended drawings etc. to CA, and ensure incorporation of necessary amendments all as before.
 - If submitted design/production information differs from the Employer's requirements as stated in the Specification and Drawings, each such difference must be the subject of a request for substitution or a Variation Instruction, supported by all relevant information.
 - Should any amendment required by the CA be considered to involve a Variation Instruction by the CA, notify the CA 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

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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 CA the number of copies required by him.

- A 640 PRODUCTION INFORMATION:
Production information must be provided by the Contractor/Domestic Subcontractor(s) as follows:
- Submit to CA for comment and make any necessary amendments.
 - Submit sufficient copies of final version to CA for distribution to all affected parties.
- B 690 RECORD DRAWINGS:
Record drawings where applicable and requested by the CA, must be provided to the CA on Completion of the Works referred to in each Order.
- C 720 MAINTENANCE INSTRUCTIONS AND GUARANTEES
- Retain copies delivered with components and equipment (failing which, obtain), register with manufacturer as necessary and hand over to CA on or before Completion.
 - Notify CA of telephone numbers for emergency services by Subcontractors after Completion.

A32 - MANAGEMENT OF THE WORKSGENERALLY

- D 110 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.
- E 130 INSURANCE CLAIMS:
If any event occurs which may give rise to any claim or proceeding in respect of loss or damage to the Works or injury or damage to persons or property arising out of the Works, forthwith give notice in writing to the Employer, the CA and the Insurers. Indemnify the Employer against any loss, which may be caused by failure to give such notice.
- F 150 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.

ItemA32 (Contd.)

- A 160 COVERING UP:
Give reasonable notice to the CA before covering up any work, which requires inspection or measurement. Work required to be inspected by the CA, which is covered without the CA having been notified, will have to be uncovered and subsequently reinstated at the Contractor's expense.

PROGRAMME/PROGRESS

- B 215 PROGRAMME:
The Programme for the Works must make allowance for:
- Design and production information provided by the Contractor / Subcontractors / Suppliers, including inspection and checking (see section A31)
 - Planning and mobilisation by the Contractor
 - Running in, adjustment, commissioning and testing of all engineering services and installations
 - Work resulting from instructions issued in regard to the expenditure of provisional sums (see section A54)
 - Work by or on behalf of the Employer and concurrent with the Contract (see section A50) the nature and scope of which, the relationship with preceding and following work and any relevant limitations are suitable 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.
- C 225 PROGRAMME:
The programme must show earliest and latest start and finish dates for each activity, and identify all critical activities. It must be of the bar chart type, unless agreed otherwise.
- D 235 AGREEMENT OF PROGRAMME:
Agreement (or lack of agreement) by the CA to the submitted programme will not relieve the Contractor of his responsibilities for progress and completion of the Works by the due dates.
- E 240 COMMENCEMENT OF WORK:
Inform the CA at least three working days before the proposed date for commencement of work on site.

ItemA32 (Contd.)

- A 250 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.
- B 265 CONTRACT REVIEW MEETINGS:
- Contract review meetings will be held with the CA every year quarter.
 - The Contractor is to attend all meetings and inform subcontractors and suppliers when their presence is required.
 - The CA will chair the meetings.
 - The Contractor is to circulate minutes from the meeting.
- C 290 NOTICE OF COMPLETION:
Give CA at least five working days notice, where appropriate, of the anticipated dates of Completion of the whole or parts of the Works included with each Order.
- D 300 ADVERSE WEATHER:
Use all reasonable and suitable building aids and methods to prevent or minimise delays during adverse weather conditions.

CONTROL OF COST

- E 420 EXISTING WORK:
The extent and location of renewal of existing work must be agreed, at least on a provisional basis, with the CA before the work is started. Remove existing work in ways which will reasonably minimise the amount of removal and renewal.
- F 455 DAYWORK SHEETS:
Prior notice is to be given to the CA of the commencement of work for which Daywork sheets are to be subsequently submitted.
- Submission of the sheets is to be strictly in accordance with the conditions detailed in Section No. 5 of this document.

ItemA32 (Contd.)

- A 485 LABOUR AND PLANT RETURNS
As required by the Conditions of Contract, the contractor is to compile on a weekly basis labour and plant returns and shall afford the CA access may he require. The returns are to show:
- The number and description of craftsmen, labourers and other persons, including those employed by subcontractors.
 - The number, type and capacity of all mechanical and power-operated plant.

A33 - QUALITY STANDARDS/CONTROLMATERIALS AND WORK GENERALLY

- B 110 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 state in or reasonably to be inferred from the project documents, and
 - In accordance with relevant good building practice.
- C 120 GENERAL QUALITY OF PRODUCTS:
- 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 CA.
 - Where a choice of manufacturer or source of supply is allowed for any particular product, 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 CA.
 - Ensure that the whole quantity of each product required to complete the work is of consistent kind, size, 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. Do not use if there are any signs of deterioration, setting or other unsatisfactory condition.

ItemA33 (Contd.)

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| A | <p>130 PROPRIETARY PRODUCTS:</p> <ul style="list-style-type: none"> • Handle, store, prepare and use or fix each product in accordance with its manufacturer's current printed or written recommendations/instructions. Inform CA if these conflict with any other specified requirement. Submit copies to CA when requested. • The tender will be deemed to be based on the products specified and recommendations on their use as described in the manufacturers' literature current at date of tender. • 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 CA and do not place orders for or use the affected products without further instructions. • Where British Board of Agrément certified products are used, comply with the limitations, recommendations and requirements of the relevant valid certificates. |
| B | <p>140 CHECKING COMPLIANCE OF PRODUCTS:</p> <p>Check all delivery tickets, labels, identification marks and, where appropriate, the products themselves to ensure that all products comply with the project documents. Where different types of any product are specified, check to ensure that the correct type is being used in each location. In particular, check that:-</p> <ul style="list-style-type: none"> • The sources, types, qualities, finishes and colours are correct, and match any approved samples. • All accessories and fixings, which should be supplied with the goods, have been supplied. • Sizes and dimensions are correct. Where tolerances of components are critical, measure a sufficient quantity to ensure compliance. • The delivered quantities are correct, to ensure that shortages do not cause delays in the work. • The products are clean, undamaged and otherwise in good condition. • Products, which have a limited shelf life, are not out of date. |

ItemA33 (Contd.)

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| A | <p>145 MATERIALS PROVIDED FREE OF CHARGE BY THE EMPLOYER:</p> <ul style="list-style-type: none"> • Make prior arrangements for and collect the materials from the Employer's specified depot/store. Transport to site, unload, hoist, store, and clean off protective coatings/wrappings prior to fixing. • Give the Employer written notification and receipt for all materials required and received and notify the Employer in writing of defective materials. Except where such notice is given the Contractor will be debited with the cost of any consequent renewals made by the Employer. • Materials not incorporated into the Works shall be returned to the depot/store as directed, provided that the materials have not suffered damage or deterioration. The Contractor is responsible for the safe keeping of all materials on receipt from the Employer. |
| B | <p>146 PROTECTION OF PRODUCTS:</p> <ul style="list-style-type: none"> • 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 in 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 in 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, packings or containers until immediately before they are used. • Wherever possible retain protective wrappings after fixing and until shortly before Completion. • Ensure that protective measures are fully compatible with and not prejudicial to the products/materials. |

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| A | 160 | <p>SUITABILITY OF RELATED WORK AND CONDITIONS:
Provide all trades with necessary details of related types of work. Before starting each new type or section of work, ensure that:</p> <ul style="list-style-type: none"> • Previous, related work is appropriate complete, in accordance with the project documents, to a suitable standard and in a suitable condition to receive the new work. • All necessary preparatory work has been carried out, including provision for services, openings, supports, fixings, 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. |
| B | 170 | <p>GENERAL QUALITY OF WORKMANSHIP:</p> <ul style="list-style-type: none"> • Operatives 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 and products 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 spacings of fastenings in compliance with section Z20. Fastenings to comply with relevant British Standards. • Provide suitable, tight packings at screwed and bolted fixing points to take up tolerances and prevent distortion. Do not overtighten fixings. • Adjust location and fixing of components and products 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 and products to remedy binding or poor fit without approval. |
| C | 175 | <p>BUILDER' WORK:
The Contractor will be responsible for executing all associated builder's work in connection with the electrical installations, e.g. cutting away structure and finishes to form holes, chases, mortices and the like and making good and the provision of scaffolding. Submit details of the builder's work to the CA, including location, details and sizes of all holes, fixings, plant</p> |

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supports and equipment to be built into the existing structure. Where necessary obtain from the CA specification details appertaining to the builder's work.

Where openings have to be cut in the external walls, submit to the CA details of how the opening is to be temporarily secured. All openings in the external walls of the building must be secure at the end of each working day to the satisfaction of the security staff. Security bars shall be refixed as original or modified to accommodate service runs on completion of the work.

In certain circumstances the CA may elect for the builder's work to be executed by another Contractor under a separate contract direct with the Employer. The Contractor must allow for liaising with the Employer's Contractor to ensure proper co-ordination of the works.

SAMPLES/APPROVALS

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| A | <p>210 APPROVAL OF PRODUCTS:</p> <p>Where approval of a product is specified the requirement for approval relates to a sample of the product and not to the product as used in the Works. Submit a sample or other evidence of suitability. Do not confirm orders or use the product until approval of the sample has been obtained. Retain approved sample in good, clean condition on site. Ensure that the product used in the Works matches the approved sample.</p> |
| B | <p>220 SAMPLES OF FINISHED WORK:</p> <p>Where a sample of finished work is specified for approval, the requirement for approval relates to the sample itself (if approval of the finished work as a whole is required this is specified separately). Obtain approval of the stated characteristic(s) of the sample before proceeding with the Works. Retain approved sample in good, clean condition on site. Ensure that the relevant characteristic(s) of the Works match the approved characteristic(s) of the sample. Remove samples, which are not part of the finished Works when no longer required.</p> |

ItemA33 (Contd.)

- A 230 APPROVALS:
Where and to the extent that products or work are specified to be approved or the CA instructs or requires that they are to be approved, the same must be supplied and executed to comply with all other requirements and in respect of the stated or implied characteristics either:
- To the express approval of the CA or
 - To match a sample expressly approved by the CA as a standard for the purpose.
- B 240 APPROVALS:
Inspection or any other action by the CA must not be taken as approval of products or work unless the CA so confirms in writing in express terms referring to:
- Date of inspection.
 - Part of the work inspected.
 - Respects or characteristics which are approved.
 - Extent and purpose of the approval.
 - Any associated conditions.

ACCURACY/SETTING OUT GENERALLY

- C 340 APPEARANCE AND FIT:
- Arrange the setting out, erection, juxtaposition of components and application 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 or 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 BS 5606, Tables 1 and 2.

SERVICES GENERALLY

- D 410 SERVICES REGULATIONS:
Any work carried out to or which affects new or existing services must be in accordance with the Bye Laws or Regulations of the relevant Statutory Authority.

ItemA33 (Contd.)

A 420 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.

B 440 TESTING AND COMMISSIONING:
Mechanical and electrical services must have final tests and commissioning carried out so that they are in full working order at Completion.

SUPERVISION/INSPECTION/DEFECTIVE WORK

C 511 SUPERVISION:
In addition to the constant management and supervision of the works provided by the Contractor's agent, all significant types of work must be under the close control of competent persons to ensure maintenance of satisfactory quality and progress.

D 515 CO-ORDINATION OF SERVICES:
Ensure new installations are co-ordinated and integrated with existing services. Before commencing the Works ascertain the location of existing services and notify the CA if they will be affected by the proposed Works. Where necessary liaise with other trades and ensure their Works are programmed to avoid delay in completion of the Works. Although the Works for each Order will have been co-ordinated with existing services it does not relieve the contractor of responsibility to check the proposed installation before commencing the Works and notify the CA immediately of any discrepancies.

E 540 OVERTIME WORKING:
Whenever overtime is to be worked, give CA not less than notice, specifying times, types and locations of work to be done. Concealed work executed during overtime for which notice has not been given may be required to be opened up for inspection and reinstated at the Contractor's expense.

F 550 DEFECTS IN EXISTING CONSTRUCTION:
Defects in existing construction to be reported to CA 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.

ItemA33 (Contd.)

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| A | 555 | ACCESS FOR INSPECTION:
Give CA not less than three working days notice before removing scaffolding or other facilities for access. |
| B | 560 | TIMING OF TESTS AND INSPECTIONS:
Agree dates and times of tests and inspections with CA several days in advance, to enable the CA and other affected parties to be present. On the previous working day to each such test or inspection confirm that the work or sample in question will be ready or, if not ready, agree a new date and time. |
| C | 563 | TESTS:
Provide all necessary calibrated and certified instruments, labour and materials to carry out specified tests. |
| D | 565 | TEST CERTIFICATES:
Submit a copy of each certificate to CA as soon as practicable, and keep copies of all certificates on site. The certificates shall include details of the type, make, model and serial number of the test instrument used. Failure of the Contractor to comply with this may result in the work being rejected and the installation being re-tested at no cost to the Employer. |
| E | 570 | PROPOSALS FOR RECTIFICATION OF DEFECTIVE WORK/PRODUCTS: <ul style="list-style-type: none"> • 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 to the CA and he may issue contrary instructions. |
| F | 580 | MEASURES TO ESTABLISH ACCEPTABILITY:
Wherever inspection or testing shows that the work or products are not in accordance with the Contract and measures (e.g. testing, opening up, making experimental making good) are taken to help in establishing whether or not the work is acceptable, such measures: <ul style="list-style-type: none"> • will be at the expense of the Contractor, and • will not be considered as grounds for extension of time. |

ItemA33 (Contd.)

- A 590 QUALITY CONTROL
- Establish and maintain procedures to ensure that the Works, including the work of all subcontractors, comply with specified requirements. Maintain full records; keep copies of particular parts of the records on request. The records must include:
- Identification of the element, item, batch or lot including location in the Works.
 - The nature and dates of inspections by the Contractor or CA, tests and approvals.
 - The nature and extent of any non-conforming work found.
 - Details of any corrective action.

WORK AT OR AFTER COMPLETION

- B 610 GENERALLY:
- Make good all damage consequent upon the work.
 - Remove all temporary markings, coverings and protective wrappings 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.
- C 640 SECURITY AT COMPLETION:
- Leave the Works secure with all accesses locked. Account for and adequately label all keys and hand over to Employer with itemised schedule, retaining duplicate schedule signed by Employer as a receipt.

ItemA33 (Contd.)

- A 650 MAKING GOOD DEFECTS:
Make arrangements with the CA and give reasonable notice of the precise dates for access to the various parts of the Works for purposes of making good defects. Inform CA when remedial works to the various parts of the Works are completed.

A34 - SECURITY/SAFETY PROTECTIONGENERALLY

- B 125 HSE APPROVED CODES OF PRACTICE:
Comply with the following:
- Management of health and safety at work.
 - Managing construction for health and safety.
- C 126 SAFETY EQUIPMENT:
Provide industrial safety helmets to BS 5240 for the use of all site personnel and ensure they are worn at all times whilst on site.
- D 128 HARMFUL SUBSTANCES:
If the work involves the use of solvents and harmful substances notify the CA and provide relevant COSHH data sheets. Agree with the CA the method of working with the relevant material.
- E 129 SAFETY HANDBOOK:
Comply with the Employer's requirements in the Safety Handbook, a copy of which is available for inspection by arrangement with The Horniman Museum
- F 130 SECURITY:
Adequately safeguard the site, the Works, products, materials, plant, and any existing buildings affected by the Works from damage and theft. Take all reasonable precautions to prevent unauthorised access to the site, the Works and adjoining property.
- G 150 OCCUPIED PREMISES:
The existing buildings will be occupied and/or used during the Contract, accordingly:
- Carry out the Works without undue inconvenience and nuisance and without danger to occupants and users.
 - If it transpires that compliance with this clause requires certain operations to be carried out during overtime, and such overtime is not required for any other reason, the extra cost will be paid to the Contractor, provided that such overtime is authorised by the CA in advance.

ItemA34 (Contd.)

- A 165 OCCUPIER'S RULES AND REGULATIONS:
Comply with the Occupier's Rules and Regulations affecting the site. Copies may be seen at the office of the CA.
- B 171 EMPLOYER'S REPRESENTATIVES SITE VISITS:
Inform the CA in advance of all safety procedures (including those relating to materials which may be deleterious), which will require the compliance of the Employer or his representatives when visiting the site. Provide protective clothing and/or equipment for the Employer and his representatives as appropriate.
- C 185 PERMIT TO WORK / HOT WORKS
Permit to work procedures will operate for all work. The Horniman Museum requires that all Hot Works are to be under a pre-agreed permit to work. Wherever possible works should be designed to minimise the use of Hot Works at all times.
- PROTECT AGAINST THE FOLLOWING:
- D 210 EXPLOSIVES:
Do not use.
- E 221 NOISE:
- Comply generally with the recommendations of BS 5228: Part 1, clause 9.3 for minimising noise levels during the excavation of the works.
 - Noise levels from the works are to be kept below 75dB(A).
 - 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 during before 8.45am, and between 10.30am and 5.30pm without consent of the CA. Consult with the CA before using noisy appliances at any time.
 - Do not use or permit employees to use radios or other audio equipment.
- F 240 NUISANCE:
Take all necessary precautions to prevent nuisance from smoke, dust, rubbish, vermin and other causes.
- G 250 NUISANCE:
- No obscene literature or language will be tolerated.
 - No pets will be allowed on site.
 - No fraternising with members of staff or museum visitors will be tolerated

ItemA34 (Contd.)

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| A | 245 | CONSUMPTION OF FOOD:
Do not allow employees to consume food inside the Museum. Food may only be consumed in designated Mess Room. |
| B | 250 | ASBESTOS BASED MATERIALS:
Report immediately to the CA any suspected asbestos based materials discovered during demolition/refurbishment work. Avoid disturbing such materials. Agree with the CA methods for safe removal or encapsulation. |
| C | 263 | FIRE PREVENTION:
Smoking will not be permitted on the site or anywhere within the Museum Complexes. This will be strictly enforced and any person is seen smoking will be instructed to leave the site immediately. |
| D | 264 | FIRE AND WATER HAZARDS:
Work which will involve risks from fire and/or water must be carried out to ensure the safety of personnel, the building and its contents. Notify the CA and the Museum Fire Officer at least 3 working days before the proposed work is to be executed. The Museum Fire Officer, and the CA, where applicable, must be in attendance whilst work involving a fire hazard is executed. Hot Works must cease at least two hours before the end of the normal working day. The Contractor must inspect the Hot Works area, with Museum security staff in attendance before leaving the site.

The Museum's fire alarm system comprises mainly smoke detectors. Notify the CA at least three working days prior to the start of work, which will generate dust in the vicinity of a smoke detector. |
| E | 265 | BURNING ON SITE:
Burning on site of materials arising from the work will not be permitted. |
| F | 270 | WATER:
Prevent damage from storm and surface water. |

ItemA34 (Contd.)

- A 290 WASTE:
- Remove rubbish, debris, surplus material and spoil at the end of each working shift and keep the site and Works clean and tidy. If rubbish and debris accumulates so as to cause a fire hazard the works will be stopped until the hazard is removed. The Contractor will bear all the costs arising from this delay.
 - Remove all rubbish, dirt and residues 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 materials 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 relevant regulations.
 - Retain waste transfer documentation on site.
- B 300 ELECTROMAGNETIC INTERFERENCE:
Take all necessary precautions to avoid excessive electromagnetic disturbance of apparatus outside the site.
- C 315 POWDER ACTUATED FIXING SYSTEMS:
Do not use.
- PROTECT THE FOLLOWING:
- D 410 WORK IN ALL SECTIONS:
Adequately protect all types of work and all parts of the Works, including work carried out by others, throughout the Contract. Wherever work is of an especially vulnerable nature or is exposed to abnormal risk provide special protection to ensure that damage does not occur.
- E 420 EXISTING SERVICES:
- Notify all service authorities and/or adjacent owners of the proposed works not less than one week before commencing site operations.
 - 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 without consent of the service authorities or other owners.

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ItemA34 (Contd.)

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- If any damage to services results from the execution of the Works, notify CA and appropriate service authority without delay. Make arrangements for the work to be made good without delay to the satisfaction of the service authority or other owner as appropriate. Any measure taken by the CA 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.

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| A | 430 | ROADS AND FOOTPATHS:
Adequately maintain roads and footpaths within and adjacent to the site and keep clear of mud and debris. Ensure no damage, beyond fair wear and tear is caused by site traffic. 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. |
| B | 450 | EXISTING FEATURES:
Prevent damage to existing buildings, fences, gates, wall, roads, paved areas and other site features, which are to remain in position during the execution of the Works. |
| C | 460 | EXISTING WORK:
Prevent damage to existing property undergoing alteration 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. |
| D | 465 | 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 in severe weather. |
| E | 468 | DAMAGE TO THE EXISTING FABRIC:
Damage to the existing building caused by the failure to provide adequate and proper protection, or due to negligence, will be made good at Contractor's own expense. |

ItemA34 (Contd.)

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| A | 470 | EXISTING FURNITURE, FITTINGS AND EQUIPMENT:
Prevent damage to any furniture, fittings or equipment left in the existing property. Move as necessary to enable the Works to be executed, cover and protect as necessary and replace in original positions. The removal/reinstatement of artefacts and displays, to enable Works to be executed, will be arranged by the Employer before the Works commence. Notify the CA at least five working days prior to the proposed commencement of the Works of those artefacts/displays which are to be removed. |
| B | 475 | ESPECIALLY VALUABLE/VULNERABLE ITEM(S):
Ensure the provision and maintenance of special protective measures to prevent damage to items as specifically instructed by the CA. |
| C | 481 | ADJOINING PROPERTY:
Prevent trespass of workpeople. Take all reasonable precautions to prevent damage to adjoining property. Obtain permission as necessary from the owners if requiring to erect scaffolding on or otherwise use adjoining property, and pay all charges. Remove and make good on completion or when directed. Bear the cost of repairing any damage arising from execution of the Works. |
| D | 490 | EXISTING STRUCTURES: <ul style="list-style-type: none"> • 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 overstressing of completed work when removing supports. |
| E | 495 | STORING MATERIALS/TOOLS:
Do not leave tools/materials unattended during the course of the Works. All tools must be marked with the Contractor's name. Provide adequate lockable storage facilities for tools/materials. Ensure tools/materials are properly stored whilst the Works are unattended and overnight/weekends. |

Item**A35 - SPECIFIC LIMITATIONS ON METHOD/SEQUENCE/TIMING**

- A 110 SCOPE:
The limitations described in this section are supplementary to limitations described or implicit in information given in other sections or on the drawings.
- B 105 EXECUTION OF THE WORKS:
- Permits to Work must be obtained from the CA before commencing any Works referred to in an Order.
 - Working areas will be agreed with the CA before commencement of the Works.
 - Space for storage of materials and plant will be restricted to the defined working areas agreed with the CA.
 - Space for accommodation will be confined to the defined working areas agreed with the CA.
 - Do not disconnect or interfere with any existing services without notifying the CA and giving three working days notice.
- C 130 METHOD/SEQUENCE OF WORK:
To be defined on site and agreed with the CA for each Order.
- The Contractor is required to liaise closely with the CA with regard to the interface between the operational areas and the working areas.
- The site is to be restricted to the areas absolutely necessary to execute the work.
- D 175 SECURITY:
All the Contractor's operatives must observe the Employer's Museum Security Requirements, both verbal and written, and observe all instructions given by authorised Museum personnel.
- The Contractor must notify the designated person at the Museum, giving at least 24 hours notice in writing, of all operatives to be employed on the Works, the nature/location of the Works and the anticipated duration of their time on site. The operatives must report to the Duty Security Officer when arriving at the Museum. A day pass will be provided which must be displayed by the operative on his/her person in a prominent position at all times. When working in an occupied area the operative(s) shall notify the Local Security Officer of his/her purpose and the exact location of the Works. When leaving the site, either at the end of each day or on completion of the Works, the day pass must be returned.

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Failure to comply with these security requirements will result in the Contractor's operatives being denied access or instructed to leave the premises. Any costs arising from this failure will be at the Contractor's own cost and will not be grounds for an extension to the period for executing the Works.

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| A | 180 | <p>START OF WORK:</p> <p>The date of commencement for the Works described on each Order must be agreed with the CA.</p> | | | | |
| B | 190 | <p>WORKING HOURS:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 40%;">Horniman Museum:</td> <td>7.00am to 6.00pm</td> </tr> <tr> <td>Study Collection Centre:</td> <td>9.00am to 4.45pm</td> </tr> </table> | Horniman Museum: | 7.00am to 6.00pm | Study Collection Centre: | 9.00am to 4.45pm |
| Horniman Museum: | 7.00am to 6.00pm | | | | | |
| Study Collection Centre: | 9.00am to 4.45pm | | | | | |
| C | 195 | <p>OPENING TIMES TO THE PUBLIC:</p> <p>Horniman Museum:</p> <ul style="list-style-type: none"> • Monday - Sunday 10.00am to 5.30pm <p>Study Collection Centre:</p> <ul style="list-style-type: none"> • Monday - Friday 9.00am to 5.00pm | | | | |
| D | 198 | <p>VISITORS:</p> <p>The Museum and Park are open to the public, which includes children, and the Contractor must ensure that adequate measures are taken to protect all visitors. Provide suitable enclosures to prevent access to the Works area(s). The Contractor's attention is drawn to the following potential hazards:-</p> <ul style="list-style-type: none"> a) The vehicular approach to the Museum as via a pedestrian path from Horniman Drive.
Drive with extreme caution at maximum speed of 5mph and be aware of playing children. b) Transporting bulky/heavy plant and materials to the Works location(s) will need to be executed whilst the Museum is not open to the public. | | | | |
| E | 210 | <p>COMPLETION IN SECTIONS OR PARTS:</p> <ul style="list-style-type: none"> • Where the Employer is to take possession of any Section or part of the Works and such Section or part, after its completion, depend for its 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. | | | | |

Item**A36 - FACILITIES/TEMPORARY WORK/SERVICES**

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| A | 110 | LOCATIONS:
Inform CA of the intended siting of all temporary works and services. |
| B | 120 | TEMPORARY WORKS AND SERVICES:
Maintain, alter, adapt and move temporary works and services as necessary. Remove when no longer required and make good. |
| C | 265 | SANITARY ACCOMMODATION:
The Contractor will be allowed the use of a designated Museum staff toilet. The Contractor must provide soap/towels for the use of the operatives. Ensure the accommodation is left in a clean condition after use. The accommodation must not be used for washing/cleaning paintbrushes, tools and other utensils used in the execution of the Works. |
| D | 268 | SITE ACCOMMODATION:
Where the Works require, and subject to prior agreement with the CA, provide temporary buildings for offices, mess rooms, sanitary accommodation and stores for use of all site operatives. The Contractor will be responsible for arranging delivery/collection, erection/dismantling and moving to suit progress of the Works. |
| E | 270 | ACCOMMODATION PROVIDED BY THE EMPLOYER:
In certain circumstances the Employer may provide accommodation within the existing building complex, free of charge to the Contractor, under the following conditions:- <ul style="list-style-type: none"> • It is used solely for the purposes of carrying out the Works. • The use to which it is put must not involve undue risk of damage. • Any temporary adaptations must be approved by or on behalf of the Employer before being carried out. • It must be vacated on completion of the Works or determination of the Contractor. • When vacated, its condition must be at least equivalent to its condition at the start of the Contract. |

ItemA36 (Contd.)

- A 285 SCAFFOLDING:
Ensure that stepladders, trestles, scaffolding or other plant brought onto the site shall not, at any time be accessible to any unauthorised person. Comply with the following requirements:-
- a) No fixed external scaffolding shall be used without the express permission of the CA. When used a certificate of approval shall be issued with regular inspections in accordance with good practice. All necessary licences shall be obtained, and all fees paid by the Contractor.
 - b) All ladders in permanent use, either singly or forming part of the scaffolding external to the main structure must be firmly padlocked and chained against removal. A single ladder, or where appropriate, the bottom section of a multiple ladder access to scaffolding shall, at the close of each day's work, be returned to a lock up store or removed from site.
 - c) The use of external ladder shelters is forbidden. Ladders, steps or trestles in temporary use shall, at the close of each day's work, be returned to a lock-up store or removed from site.
- B 330 TEMPORARY HOARDING(S):
The requirements will be considered and instructions issued by the CA, to the Contractor, for each Order.
- C 340 TEMPORARY SCREEN(S):
The requirements will be considered and instructions issued by the CA, to the Contractor, for each Order.
- D 370 NAME BOARDS/ADVERTISEMENTS:
Contractor's subcontractors' name boards or advertisements will not be permitted.
- E 420 LIGHTING AND POWER:
Electricity supply from the Employer's mains may be used for the Works as follows:
- Ascertain the suitability and location of the supply for the Works.
 - If the existing supply is not suitable notify the CA at least three working days before the Works are due to commence. Make arrangements for alternative source of power as agreed with the CA.
 - Ensure adequate levels of lighting are available to execute and inspect the Works.
 - The Employer will not be held responsible for the effects of any failure or restriction in supply.

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ItemA36 (Contd.)

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- The electricity will be provided free of charge by the Employer.
- Give CA seven working days written notice of the intention to interrupt the permanent electrical installation in the course of the Execution of the Works. Obtain written approval from the CA before interrupting the supply.

A 430 WATER:
Water from the Employer's mains may be used for the Works (avoidable waste excepted) as follows: Ascertain the suitability and location of the supply for the Works.

B 441 TELEPHONES
Provide the person in charge with a mobile phone.

A37 - OPERATION/MAINTENANCE OF THE FINISHED BUILDING

C 105 THE BUILDING MANUAL/HEALTH AND SAFETY FILE:
The Works executed under this Contract will not normally require the production of a Building Manual/health and Safety File. However, in some circumstances, alterations occasioned by the Works will require the existing documents to be amended to incorporate these changes. The Contractor will therefore be required to provide the necessary information to facilitate the amendments to these documents. The requirements for these documents are included here to provide the Contractor with the scope of information required to be included.

D 111 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 Contractor 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 CA.

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ItemA37 (Contd.)

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

PART 1: GENERAL INFORMATION: Content as clause 121, the information being provided to the Contractor by the CA.

PART 2: BUILDING FABRIC INFORMATION: Content as clause 132, plus certain as-built drawings and other information provided to the Contractor by the CA.

PART 3: BUILDING SERVICES INFORMATION: Content as clause 143.

- The presentation of the Manual is to be as clause 151.
- A complete draft of the Manual must be submitted not less than four before the date for submission of the final copies of the Manual. Amend the draft Manual in the light of any comments and resubmit to the CA. Do not proceed with production of the final copies of the Manual until authorised to do so by the CA.
- Final copies of the Manual: Provide the CA with one copy not less than one week before completion.
- As-built drawings: Provide one copy on paper folded to A4

- A 113 THE HEALTH AND SAFETY FILE:
The health and safety file is an information source and guide for the Employer and end users providing an understanding of the building and its systems and enabling it to be operated and maintained safely. Provide the CDM Co-ordinator, with one copy of the information required below not less than one week before completion.
- Details of construction methods and materials which may present significant residual hazards with respect to cleaning, maintenance or demolition for all Contractor designed and performance specified work.
 - A full description of each of the building services systems installed, written to ensure that the Employer's staff fully understand the scope and facilities provided.
 - Operating and maintenance instructions for all equipment and systems installed.

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- Copies of manufacturers current technical literature and COSHH dated data sheets for all materials, plant and equipment selected by the Contractor.
- General maintenance instructions for all items of Contractor designed or performance specified work.
- As-built drawings recording details of construction for all Contractor designed and performance specified work.

A 121 THE BUILDING MANUAL PART 1: - GENERAL INFORMATION
Information must include:

- A description of the buildings.
- Details of ownership and all consultants and designers.
- 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.
- 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 building(s) including drawings showing emergency escape routes, location of emergency and fire fighting systems, services shut-off valves, switches, etc.

B 132 THE BUILDING MANUAL PART 2: BUILDING FABRIC
INFORMATION:

Provide such information as is reasonably required by the CDM Co-ordinator including:

- Details of construction methods and materials that may present significant residual hazards with respect to cleaning, maintenance or demolition for all Contractor designed work and performance specified work.
- As-built drawings 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 subcontractors and manufacturers.
- Copies of all test certificates and reports required in the specification.

ItemA37 (Contd.)

- A 143 THE BUILDING MANUAL PART 3: BUILDING SERVICES INFORMATION
- Information must include:
- A full description of each of the systems installed, written to ensure that the Employer's staff fully understand the scope and facilities provided.
 - A description of the mode of operation of all systems including services capacity and restrictions.
 - Diagrammatic drawings of each system including principal items of plant, equipment, valves, etc.
 - A photo-reduction of all record drawings to A4 size together with an index.
 - Legend for all colour-coded services.
 - 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 schedules.
 - The name, address and telephone number of the manufacture of every item of plant and equipment together with catalogue list numbers.
 - Manufacturers' technical literature for all items of plant and equipment, assembled specifically for the project, excluding irrelevant matter and including detailed drawings, electrical circuit details and 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 the installations and plant, equipment, valves, etc., used in the installations.
 - A copy of all manufacturers' guarantees, warranties and maintenance agreements offered by subcontractors and manufacturers.
 - Starting up, operating and shutting down instructions for all equipment and systems installed.
 - Control sequences for all 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.

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ItemA37 (Contd.)

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- A list of recommended spares to be kept in stock by 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.

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| A | 151 | PRESENTATION OF BUILDING MANUAL:
The Manual is to be contained in a series of A4 size, plastic covered, loose leaf, four ring 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 the as-built drawings may form annex(es) to the Manual. |
| B | 220 | TRAINING OF EMPLOYER'S STAFF:
Before Completion explain and demonstrate to the Employer's maintenance staff the purpose, function and operation of the installations included in each Order. |
| C | 230 | SPARE PARTS:
If appropriate submit to the CA a schedule of spare parts that the Contractor recommends should be obtained and kept in stock by the Employer for maintenance of the services installations. State against each item the manufacturer's current price, including packaging and delivery to site. |