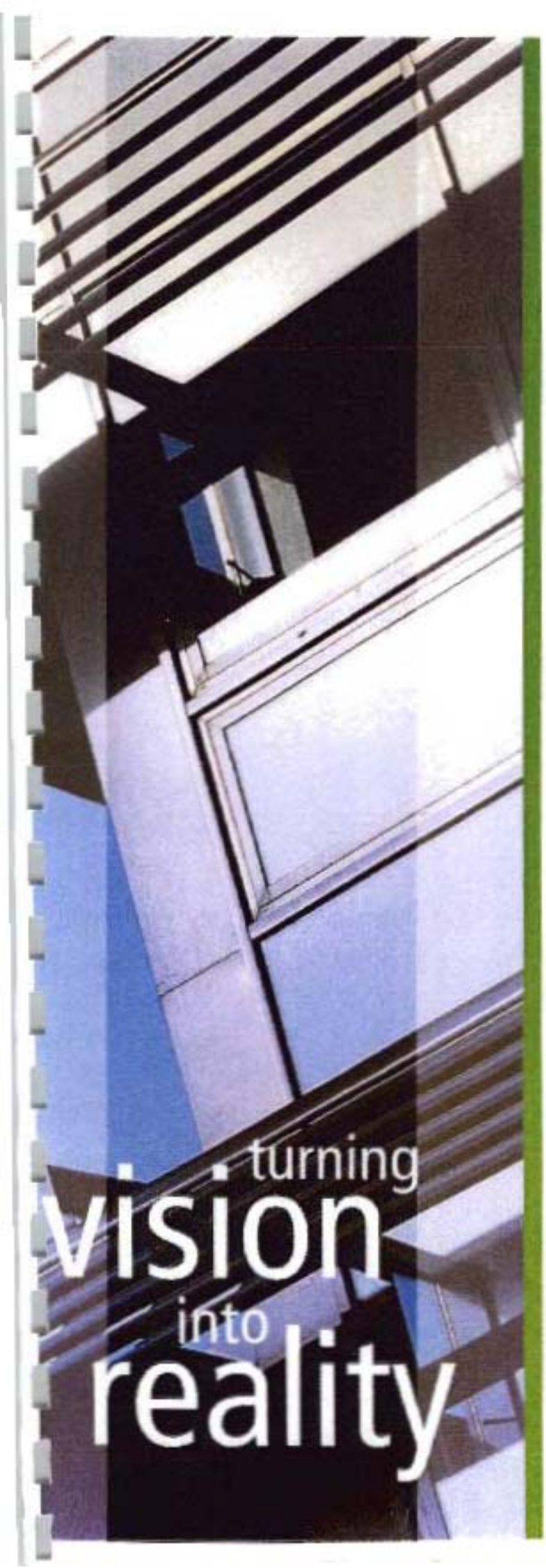

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Specification / Schedule of Work



For

Righton Building Roof Covering Replacement and Roof Light Refurbishment Works

at

Manchester Metropolitan University

April 2008

Contents

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ISSUE CONTROL SHEET

PROJECT NAME: **Manchester Metropolitan University**
Righton Building, Roof Covering Replacement Works and
Roof Light Refurbishment Works

PROJECT TITLE: **Specification / Schedule of Work**

PROJECT REF: **1025**

Issue No	Prepared By	Checked By	Authorised	Date
Original	Darren Hurst	Chris Thorpe	Darren Hurst	/04/2008
Rev 1				17-4-2008.

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Manchester
M33 7RR

Tel No: 0161 973 7410
Fax No: 0161 973 6193

Manchester Metropolitan University
Righton Building Roof Works

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Section A

Preliminaries

Our Ref: 1025
April 2008

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A10 PROJECT PARTICULARS

110 THE PROJECT

- Name: Manchester Metropolitan University, Righton Building .
- Nature: Replacement of Roof Covering, Roof Light Restoration,render works to parapet walls and provision of new drainage outlets .
- Location: Righton Building, Cavendish Street, Manchester, M15 6BG .
- Length of contract: 14 weeks including 3 weeks contractor lead-in and mobilisation .

120 EMPLOYER (CLIENT)

- Name: Manchester Metropolitan University.
- Address: Property Management Team
  Ormond Building
  Lower Ormond Street
  Manchester
  M15 6BX
  Contact: Mr John Forrester.
- Telephone: 0161 247 6039.

130 PRINCIPAL CONTRACTOR

- Name: To Be Confirmed.
- Address: To Be Confirmed.
- Telephone: To Be Confirmed.

140A DESIGNER / CONTRACT ADMINISTRATOR

- Name: AA Projects Ltd.
- Address: Jackson House
  Sibson Road
  Sale
  Manchester
  M33 7RR
  Contact: Mr Darren Hurst.
- Telephone: 0161 973 7410.
- E-mail: darrenhurst@aaprojects.co.uk.

150A CDM COORDINATOR

- Name: AA Projects Ltd.
- Address: Jackson House
  Sibson Road
  Sale
  Manchester
  M33 7RR
  Contact: Mr Chris Thorpe.
- Telephone. 0161 973 7410.

170 STRUCTURAL ENGINEER

- Name: To be appointed by Principal Contractor to assess and design the scaffolding tented structure located over the roof lights and internal scaffolding within the Atrium .
- Address: TBC.
- Telephone: TBC.

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A11 TENDER AND CONTRACT DOCUMENTS

110 TENDER DRAWINGS

- The tender drawings are:
  1025.001 - As Existing Site Plan
  1025.002 - As Existing Roof Plan
  1025.003 - As Existing Cross Section Plan
  1025.004 - Proposed Lead Detail
  1025.005 - Proposed Lead Detail
  1025.006 - Proposed Above Ground Drainage Detail
  1025.007 - Proposed Gutter Detail.

120 CONTRACT DRAWINGS

- The Contract Drawings: The same as the tender drawings.

160 PRE-TENDER HEALTH AND SAFETY PLAN/ PRECONSTRUCTION INFORMATION

- Format: A separate Pre-tender Health and Safety Plan/ Preconstruction information is included with the tender documents.

180 OTHER DOCUMENTS

- 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 Righton Building, MMU, Cavendish Street, Manchester, M15 6BG.
- The documents include: A Health & Safety File and an Asbestos Register.

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A12 THE SITE/ EXISTING BUILDINGS

110 THE SITE

- Description: The Righton Building is two storey in nature with a basement, sub-divided into cellular offices with a central atrium and is designated Grade II Listing. The Righton Building is located on Cavendish Street, Manchester, M15 6BG. The building currently houses teaching facilities for post graduate students and office accomodation for the University staff.

120 EXISTING BUILDINGS ON/ ADJACENT TO THE SITE

- Description: The site comprises of high / low rise, flat and pitched roofed educational buildings including student accomodation / halls of residence forming part of the University estate.

180 HEALTH AND SAFETY FILE

- Availability for inspection: The Health and Safety File for the site/ building may be seen by appointment during normal office hours at: Righton Building, Cavendish Street, Manchester, M15 6BG.
- Other documents: Asbestos register.
- Arrangements for inspection: By appointment with the employer.

200 ACCESS TO THE SITE

- Description: Access to the site during tender period will be by appointment only, contact Mr John Forrester on 0161 247 6039 for a roof access permit. Please contact the CA as clause A10/140 prior to making any site visits.
- Limitations: All site visits must be in accordance with the rules and regulations of Manchester Metropolitan University.

210 PARKING

- Restrictions on parking of the Contractor's and employees' vehicles: Parking on-site is controlled by Manchester Metropolitan University and limited spaces will be made available for contractors use during the proposed works within a suitably positioned site compound.

220 USE OF THE SITE

- General: Do not use the site for any purpose other than carrying out the Works.
- Limitations: No burning of waste materials emanating from the works will be allowed on site. Noise resulting from the works must be kept to a reasonable level to the task at hand.

230 SURROUNDING LAND/ BUILDING USES

- General: Adjacent or nearby uses or activities are as follows:
  - The surrounding buildings are to remain operational throughout the Contract / works and will be used for educational purposes, forming part of the University.

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240 HEALTH AND SAFETY HAZARDS

- General: The nature and condition of the site/ building cannot be fully and certainly ascertained before it is opened up. However the following hazards are or may be present:
  - Refer to all available Health & Safety documentation and the Asbestos register for the site prior to commencing any works. The roof covering and build-up contains an Asbestos based material.
- Information: The accuracy and sufficiency of this information is not guaranteed by the Employer or the Employer's representative. Ascertain if any additional information is required to ensure the safety of all persons and the Works.
- Site staff: Draw to the attention of all personnel working on the site the nature of any possible contamination and the need to take appropriate precautionary measures.

250 SITE VISIT

- Before tendering: Ascertain the nature of the site, access thereto and all local conditions and restrictions likely to affect the execution of the Works.
- Arrangements for visit:
  Contact:
  Mr Darren Hurst
  AA Projects Ltd
  Jackson House
  Sibson Road
  Sale
  Manchester
  M33 7RR
  0161 973 7410.

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A13 DESCRIPTION OF THE WORK

120 THE WORKS

- Description: The renewal of existing aged / defective roof coverings, restoration of timber and glass rooflights, rendering / waterproofing of parapet walls (internal elevations only), repointing of masonary brickwork and provision of new drainage outlets .

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A20 JCT INTERMEDIATE BUILDING CONTRACT (IC)

JCT INTERMEDIATE BUILDING CONTRACT (IC)

- The Contract: JCT Intermediate Building Contract, 2005 Edition, including Amendment 1 issued April 2007.
- Requirement: Allow for the obligations, liabilities and services described therein against the headings following:

THE RECITALS

First - THE WORKS

- Comprise: The replacement of aged / defective roof coverings, restoration of timber and glass rooflights, rendering / waterproofing to parapets walls including repointing of masonary brickwork and provision of new roof drainage outlets.
- Location: Manchester Metropolitan University, Righton Building, Cavendish Street, Manchester, M15 6BG.

Second - CONTRACT DRAWINGS

- The contract drawings: As listed in clause A11/120.

Third - OTHER DOCUMENTS SUPPLIED BY THE EMPLOYER

- Comprise: Asbestos register and contractors safe working procedures.
- Named person: The whole of the text referring to a named person as a subcontractor will not be deleted.

Fourth A - PRICING BY THE CONTRACTOR

- Option A will apply: Option B will be deleted.
- Priced document: Within Option A the following words will be deleted:
  - Bills of Quantities.
- Priced Activity Schedule: The words 'and has provided the Employer with a priced schedule of activities annexed to this contract (the Activity Schedule)' will be deleted.

Sixth - INFORMATION RELEASE SCHEDULE

- The Sixth Recital will be deleted.

Eighth - DIVISION OF THE WORKS INTO SECTIONS

- The Eighth Recital will be deleted

THE ARTICLES

3 - CONTRACT ADMINISTRATOR

- Contract Administrator: See clause A10/140.

5 and 6 - CDM COORDINATOR/ PRINCIPAL CONTRACTOR

- CDM Coordinator: See clause A10/150.
- Principal Contractor: See clause A10/130.

9 - LEGAL PROCEEDINGS

- Amendments: Do not apply.

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CONTRACT PARTICULARS

PART 1: GENERAL

Fifth Recital and clause 4.4 - CONSTRUCTION INDUSTRY SCHEME (CIS)
- Employer at the Base Date is not a 'contractor' for the purposes of the CIS.

Seventh Recital - CDM REGULATIONS
- The project is notifiable.

Article 8 - ARBITRATION
- Article 8 and clauses 9 3 to 9.8 (arbitration) apply

Clause 1.1 - BASE DATE
- Base Date: 25 March 2008.

Clause 1.1 - CDM PLANNING PERIOD
- Shall mean the period of 16 weeks ending on 18 April 2008.

Clause 1.1 - DATE FOR COMPLETION OF THE WORKS
- Date for completion of the Works (where completion by sections does not apply): 29 August 2008 (anticipated date).

Clause 1.7 - ADDRESSES FOR SERVICE OF NOTICES
- Employer:
  - Address: See Clause A10/120.
  - Fax number: See Clause A10/120.
- Contractor:
  - Address: TBA .
  - Fax Number: TBA

Clause 1.8 - ELECTRONIC COMMUNICATIONS
- The communications that may be made electronically and the format in which those are to be made Do not apply:
  - Do not apply.

Clause 2.4 - DATE FOR POSSESSION OF THE SITE
- Date for Possession: 16 June 2008.

Clause 2.5 and 2.20.3 - DEFERMENT OF POSSESSION OF THE SITE
- Clause 2.5 applies.
- Where clause 2.5 applies, maximum period of deferment is six weeks

Clause 2.23.2 - LIQUIDATED DAMAGES
- Damages: At the rate of 1,200 per week or part week thereof.

Clause 2.30 - RECTIFICATION PERIOD
- Period: Twelve months from the date of practical completion of the Works.

Clause 4.5 - ADVANCE PAYMENT AND ADVANCE PAYMENT BOND

- Advance payment: Clause 4.5 does not apply.

Clause 4.6.1 - DATES OF ISSUE OF INTERIM CERTIFICATES

- The first date is: one month following the date of possession, and thereafter the last day in each month or the nearest Business Day in that month.

Clause 4.7.1 - PERCENTAGE OF THE TOTAL VALUE OF THE WORK, ETC.

- Percentage: 95%.

Clause 4.9 - PERCENTAGE OF THE TOTAL VALUE OF THE WORKS OR SECTION

- Percentage: 97.5%.

Clause 4.12.4 - LISTED ITEMS - UNIQUELY IDENTIFIED

- Listed items: Clause 4.12.4 will be deleted.

Clause 4.12.5 - LISTED ITEMS - NOT UNIQUELY IDENTIFIED

- Listed items: Clause 4.12.5 will be deleted.

Clause 6.4.1.2 - CONTRACTOR'S INSURANCE - INJURY TO PERSONS OR PROPERTY

- Insurance cover (for any one occurrence or series of occurrences arising out of one event): 10,000,000.

Clause 6.5.1 - INSURANCE - LIABILITY OF EMPLOYER

- Insurance may be required.
- Minimum amount of indemnity for any one occurrence or series of occurrences arising out of one event: 10,000,000.

Clause 6.7 and Schedule 1 - INSURANCE OF THE WORKS - INSURANCE OPTIONS

- Schedule 1: Insurance option C applies.
- Percentage to cover professional fees: 20 per cent.
- If option A applies, annual renewal date (as supplied by the Contractor): N/A.

Clause 6.11 - JOINT FIRE CODE

- The Joint Fire Code: Does not apply.

Clause 8.9.2 - PERIOD OF SUSPENSION (TERMINATION BY CONTRACTOR)

- Period of suspension: Two months.

Clauses 8.11.1.1 to 8.11.1.5 - PERIOD OF SUSPENSION (TERMINATION BY EMPLOYER)

- Period of suspension: two months

Clause 9.2.1 - ADJUDICATION

- The Adjudicator is: To be appointed by nominator
- Nominator of Adjudicator - where no Adjudicator is named or where the named Adjudicator is unwilling or unable to act (whenever that is established): President or a Vice-President or Chairman or a Vice-Chairman of the The Royal Institution of Chartered Surveyors .

Clause 9.4.1 - ARBITRATION

- Appointor of Arbitrator (and of any replacement): President or a Vice President of the Royal Institution of Chartered Surveyors.

THE CONDITIONS

SECTION 1: DEFINITIONS AND INTERPRETATION

1.5 - RECKONING PERIODS OF DAYS

- Amendments: Do not apply.

1.12 - APPLICABLE LAW

- Amendments: Do not apply.

SECTION 2: CARRYING OUT THE WORKS

SECTION 3: CONTROL OF THE WORKS

SECTION 4: PAYMENT

SECTION 5: VARIATIONS

SECTION 6: INJURY, DAMAGE AND INSURANCE

SECTION 7: ASSIGNMENT AND COLLATERAL WARRANTIES

SECTION 8: TERMINATION

SECTION 9: SETTLEMENT OF DISPUTES

EXECUTION

- The Contract: Will be executed as a deed.

CONTRACT GUARANTEE BOND

- Contract Guarantee Bond: Do not apply.

A30 TENDERING/ SUBLETTING/ SUPPLY

MAIN CONTRACT TENDERING

110 SCOPE
- General: These conditions are supplementary to those stated in the Invitation to Tender and on the form of tender.

145 TENDERING PROCEDURE
- General: In accordance with JCT Practice Note 6 (Series 2) 'Main Contract Tendering'
- Errors: Alternative 2 is to apply.

160 EXCLUSIONS
- Inability to tender: Immediately inform if any parts of the work as defined in the tender documents cannot be tendered.
- Relevant parts of the work: Define those parts, stating reasons for the inability to tender.

170 ACCEPTANCE OF TENDER
- The Employer and Employer's representatives:
  - Offer no guarantee that any tender will be recommended for acceptance or be accepted.
  - Will not be responsible for any cost incurred in the preparation of any tender.

190 PERIOD OF VALIDITY
- Period: After submission or lodgement, keep tender open for consideration (unless previously withdrawn) for not less than 12 weeks.
- Date for possession/ commencement: See section A20.

PRICING/ SUBMISSION OF DOCUMENTS

210 PRELIMINARIES IN THE SPECIFICATION
- Measurement rules: Preliminaries/ General Conditions have been prepared in accordance with SMM7.

220 PRICING OF PRELIMINARIES
- Abbreviations: The following have been used:
  - F = Fixed charge item.
  - TR = Time related charge item.

250 PRICED DOCUMENTS
- Alterations: Do not alter or qualify the priced documents without written consent. Tenders containing unauthorised alterations or qualifications may be rejected.
- Measurements: Where not stated, ascertain from the drawings.
- Deemed included: Costs relating to items, which are not priced, will be deemed to have been included elsewhere in the tender
- Submit: With tender.

300 QUANTITIES IN THE PRICED DOCUMENT
- Quantities: Where included in the priced document, these have been prepared in accordance with SMM7.

310 TENDER

- General: 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.

480 PROGRAMME

- Programme of work: Prepare a summary showing the sequence and timing of the principal parts of the Works and periods for planning and design. Itemize any work which is excluded.
- Submit: Within one week of request.

500 TENDER STAGE METHOD STATEMENTS

- Method statements: Prepare, describing how and when the following is to be carried out:
  - Provision of temporary waterproof tent over scaffolding during the opening up of the roof .
- Statements: Submit with the tender.

510 ALTERNATIVE METHOD TENDERS

- General: In addition to and at the same time as tendering for the Works as defined in the tender documents, alternative methods of construction/ installation may be submitted for consideration. Alternatives, which would involve significant changes to other work, may not be considered.
- Alternative tenders: Such alternatives will be deemed to be alternative tenders and each must include a complete and precise statement of the effects on cost and programme.
- Safety method statement: Carry out a health and safety risk assessment for each alternative and where appropriate provide a safety method statement suitable for incorporation in the Health and Safety Plan.
- Full technical data: Submit for each alternative together with details of any consequential amendments to the design and/ or construction of other parts of the Works.
- Submit: With tender.

530 SUBSTITUTE PRODUCTS

- Details: If products of different manufacture to those specified are proposed, submit details with the tender giving reasons for each proposed substitution. Substitutions, which have not been notified at tender stage, may not be considered.
- Compliance: Substitutions accepted will be subject to the verification requirements of clause A31/200.

540 QUALITY CONTROL RESOURCES

- Statement: Describe the organisation and resources to control the quality of the Works, including the work of subcontractors.
- QA staff: Identify in the statement the number and type of staff responsible for quality control, with details of their qualifications and duties.
- Submit: With the Tender.

550 HEALTH AND SAFETY INFORMATION

- Content: Describe the organisation and resources to safeguard the health and safety of operatives, including those of subcontractors, and of any person whom the Works may affect.
- Include:
  - A copy of the contractor's health and safety policy document, including risk assessment procedures.
  - Accident and sickness 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.
- Submit: With the Tender.

570 OUTLINE CONSTRUCTION PHASE HEALTH AND SAFETY PLAN

- Content: Submit the following information within one week of request:
  - Method statements on how risks from hazards identified in the pre-tender health and safety plan and other hazards identified by the contractor will be addressed.
  - Details of the management structure and responsibilities.
  - Arrangements for issuing health and safety directions.
  - Procedures for informing other contractors and employees of health and safety hazards.
  - Selection procedures for ensuring competency of other contractors, the self-employed and designers.
  - Procedures for communications between the project team, other contractors and site operatives.
  - Arrangements for cooperation and coordination between contractors.
  - Procedures for carrying out risk assessment and for managing and controlling the risk.
  - Emergency procedures including those for fire prevention and escape.
  - Arrangements for ensuring that all accidents, illness and dangerous occurrences are recorded.
  - Arrangements for welfare facilities.
  - Procedures for ensuring that all persons on site have received relevant health and safety information and training.
  - Arrangements for consulting with and taking the views of people on site.
  - Arrangements for preparing site rules and drawing them to the attention of those affected and ensuring their compliance.
  - Monitoring procedures to ensure compliance with site rules, selection and management procedures, health and safety standards and statutory requirements.
  - Review procedures to obtain feedback.

580 SUBLETTING/ SUPPLY

610 NAMED SUBCONTRACTORS

- General: The work listed below and described in the Contract Documents is to be executed by the following persons who are hereby named as subcontractors as provided in Intermediate Building Contract clause 3.7. (For each such person a completed Form of Tender and Agreement ICSub/Nam, together with the Numbered Documents referred to therein, is included with the Main Contract tender documents).
  - Work to be executed: Restoration of glass and timber roof lights.
  - Named person: Mather & Ellis Ltd.

  Agreement: The JCT Form of Agreement ICSub/Nam/E will be used.
  Subcontractor's drawings, etc. to be prepared during the course of the Contract:
  - To be started when Main Contractor is appointed. Subcontractor estimates 6 weeks to complete, not including checking and inspection by others.

  Allow for attendance: As described in ICSub/NAM.

630 DOMESTIC SUBCONTRACTS

- General: Comply with the Construction Industry Board 'Code of Practice for the selection of subcontractors'.
- List: Provide details of all subcontractors and the work for which they will be responsible.
- Submit: Within one week of request.

A31 PROVISION, CONTENT AND USE OF DOCUMENTS

DEFINITIONS AND INTERPRETATIONS

110 DEFINITIONS

- Meaning: Terms, derived terms and synonyms used in the preliminaries/ general conditions and specification are as stated therein or in the appropriate British Standard or British Standard glossary.

120 COMMUNICATION

- Definition: Includes advise, inform, submit, give notice, instruct, agree, confirm, seek or obtain information, consent or instructions, or make arrangements.
- Format: In writing to the person named in clause A10/140 unless specified otherwise.
- Response: Do not proceed until response has been received.

130 PRODUCTS

- Definition: Materials, both manufactured and naturally occurring, and goods, including components, equipment and accessories, intended for the permanent incorporation in the Works.
- Includes: Goods, plant, materials, site materials and things for incorporation into the Works.

135 SITE EQUIPMENT

- Definition: All appliances or things of whatsoever nature required in or about the construction for completion of the Works but not materials or other things intended to form or forming part of the Permanent Works.
- Includes: Construction appliances, vehicles, consumables, tools, temporary works, scaffolding, cabins and other site facilities.

140 DRAWINGS

- Definitions: To BSRIA BG 6/2006 A design framework for building services. Design activities and drawing definitions.
- CAD data: In accordance with BS 1192-5.

160 TERMS USED IN SPECIFICATION

- Remove: Disconnect, dismantle as necessary and take out the designated products or work and associated accessories, fixings, supports, linings and bedding materials. Dispose of unwanted materials. Excludes taking out and disposing of associated pipework, wiring, ductwork or other services.
- Fix: Unload, handle, store, place and fasten in position including all labours and use of site equipment.
- Supply and fix: Includes all labour and site equipment for unloading, handling, storing and execution. All products to be supplied and fixed unless stated otherwise.
- Keep for reuse: Do not damage designated products or work. 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.
- Make good: Execute local remedial work to designated work. Make secure, sound and neat. Excludes redecoration and/ or replacement.
- Replace: Supply and fix new products matching those removed. Execute work to match original new state of that removed.
- Repair: Execute remedial work to designated products. Make secure, sound and neat. Excludes redecoration and/ or replacement.
- Refix: Fix removed products.
- Ease: Adjust moving parts of designated products or work to achieve free movement and good fit in open and closed positions.
- Match existing: Provide products and work of the same appearance and features as the original, excluding ageing and weathering. Make joints between existing and new work as inconspicuous as possible.
- System: Equipment, accessories, controls, supports and ancillary items, including installation, necessary for that section of the work to function.

170 MANUFACTURER AND PRODUCT REFERENCE

- Definition: When used in this combination:
  - Manufacturer: The firm under whose name the particular product is marketed.
  - Product reference: The proprietary brand name and/ or reference by which the particular product is identified.
- Currency: References are to the particular product as specified in the manufacturer's technical literature current on the date of the invitation to tender.

200 SUBSTITUTION OF PRODUCTS

- Products: If an alternative product to that specified is proposed, obtain approval before ordering the product.
- Reasons: Submit reasons for the proposed substitution.
- Documentation: Submit relevant information, including:
  - manufacturer and product reference,
  - cost;
  - availability;
  - relevant standards;
  - performance;
  - function;
  - compatibility of accessories;
  - proposed revisions to drawings and specification;
  - compatibility with adjacent work;
  - appearance;
  - copy of warranty/ guarantee.
- Alterations to adjacent work: If needed, advise scope, nature and cost.
- Manufacturers' guarantees: If substitution is accepted, submit before ordering products.

210 CROSS REFERENCES

- Accuracy: Check remainder of the annotation or item description against the terminology used in the section or clause referred to.
- Related terminology: Where a numerical cross-reference is not given the relevant sections and clauses of the specification will apply.
- Relevant clauses: Clauses in the referred to specification section dealing with general matters, ancillary products and execution also apply.
- Discrepancy or ambiguity: Before proceeding, obtain clarification or instructions.

220 REFERENCED DOCUMENTS

- Conflicts: Specification prevails over referenced documents.

230 EQUIVALENT PRODUCTS

- Inadvertent omission: Wherever products are specified by proprietary name the phrase 'or equivalent' is to be deemed included.

240 SUBSTITUTION OF STANDARDS

- Products specified to British Standard or European Standard: Substitution may be proposed of products 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.
- Before ordering: Submit notification of all such proposals.
- Documentary evidence: Submit for verification when requested as detailed in clause A31/200. Any submitted foreign language documents must be accompanied by certified translations into English.

250 CURRENCY OF DOCUMENTS

- Currency: References to published documents are to the editions, including amendments and revisions, current on the date of the Invitation to Tender.

260 SIZES

- General dimensions: Products are specified by their co-ordinating sizes.
- Timber: Cross section dimensions shown on drawings are:
  - Target sizes as defined in BS EN 336 for structural softwood and hardwood sections.
  - Finished sizes for non-structural softwood or hardwood sawn and further processed sections.

DOCUMENTS PROVIDED ON BEHALF OF EMPLOYER

410 ADDITIONAL COPIES OF DRAWINGS/ DOCUMENTS

- Additional copies: Issued free of charge.

440 DIMENSIONS

- Scaled dimensions: Do not rely on.

450 MEASURED QUANTITIES

- Ordering products and constructing the Works: The accuracy and sufficiency of the measured quantities is not guaranteed.
- Precedence: The specification and drawings shall override the measured quantities.

460 THE SPECIFICATION

- Coordination: All sections must be read in conjunction with Main Contract Preliminaries/ General conditions.

DOCUMENTS PROVIDED BY CONTRACTOR/ SUBCONTRACTORS/ SUPPLIERS

550 NAMED SUBCONTRACTORS: DESIGN AND PRODUCTION INFORMATION

- General: Certain Subcontractors are/ will be required to provide design/ production information during the Contract as described in clause A30/610:
- Master programme: Make reasonable allowance, based on information in section A30, for completing design/ production information, checking, submission (including to the Planning Supervisor/ CDM Coordinator), comment, inspection, amendment, resubmission and reinspection.
- Information from Subcontractors:
  - Obtain in time to meet the programme and in accordance with NAM/T where applicable.
  - Check dimensions are correct, account is taken of all related work, and construction is practicable. Note any comments on one copy of the design/ production information, then submit with the required number of additional unmarked copies. Such checking will not relieve the CA or the Subcontractors of their respective responsibilities for design, co-ordination and documentation.
- Inspection and comments: One copy will be marked and returned to Contractor. This will not relieve the Subcontractors of their responsibility for design and documentation. Ensure that any necessary amendments are made without delay and resubmit unless it is confirmed that it is not required.
- Final version of information: Distribute copies to all affected Subcontractors and others and keep one copy on site.
- Submit three copies.

630 TECHNICAL LITERATURE

- Information: Keep on site for reference by all supervisory personnel:
  - Manufacturers' current literature relating to all products to be used in the Works.
  - Relevant British, EN or ISO Standards.

640 MAINTENANCE INSTRUCTIONS AND GUARANTEES

- Components and equipment: Obtain or retain copies, register with manufacturer and hand over on or before completion of the Works.
- Information location: Building Manual.
- Emergency call out services: Provide telephone numbers for use after completion. Extent of cover: twenty four hours seven days a week.

DOCUMENT/ DATA INTERCHANGE

850 ELECTRONIC DATA INTERCHANGE (EDI)

- Data: Types and classes of communication: Does not apply.
- Parties: Between: Does not apply.
- Requirements: Does not apply.

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A32 MANAGEMENT OF THE WORKS

GENERALLY

110 SUPERVISION

- General: Accept responsibility for coordination, supervision and administration of the Works, including subcontracts.
- Coordination: Arrange and monitor a programme with each subcontractor, supplier, local authority and statutory undertaker, and obtain and supply information as necessary for coordination of the work.

115 CONSIDERATE CONSTRUCTORS SCHEME

- Registration: Before starting work, register the site and pay the appropriate fee:
- Contact:
  - Address: Considerate Constructors Scheme Office, PO Box 75, Great Amwell, Ware, Hertfordshire, SG12 9UY.
  - Tel. 01920 485959.
  - Fax. 01920 485958.
  - Web. www.ccscheme.org.uk
  - E mail. enquiries@ccscheme.org.uk
- Standard: Comply with the Scheme's Code of Considerate Practice.

120 INSURANCE

- Documentary evidence: Before starting work on site submit details, and/ or policies and receipts for the insurances required by the Conditions of Contract.

130 INSURANCE CLAIMS

- Notice: 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, immediately give notice to the Employer, the person named in clause A10/140 and the Insurers.
- Failure to notify: Indemnify the Employer against any loss, which may be caused by failure to give such notice.

140 CLIMATIC CONDITIONS

- Information: Record accurately and retain:
  - Daily maximum and minimum air temperatures (including overnight).
  - Delays due to adverse weather, including description of the weather, types of work affected and number of hours lost.

PROGRAMME/ PROGRESS

210 PROGRAMME

- Master programme: When requested and before starting work on site, submit in an approved form a master programme for the Works, which must include details of:
  - Design, production information and proposals provided by the Contractor/ Subcontractors/ Suppliers, including inspection and checking (see section A31).
  - Planning and mobilization by the Contractor.
  - Earliest and latest start and finish dates for each activity and identification of all critical activities.
  - 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 suitably defined in the Contract Documents.
- Exclusions: 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 and confirm this when submitting the programme.
- Submit: three copies.

230 SUBMISSION OF PROGRAMME

- Further information: Submission of the programme will not relieve the Contractor of the responsibility to advise of the need for further drawings or details or instructions in accordance with the Contract.

240 COMMENCEMENT OF WORK

- Notice: Before the proposed date for commencement of work on site give minimum notice of one month.

250 MONITORING

- Progress: Record on a copy of the programme kept on site.
- Avoiding delays: If any circumstances arise which may affect the progress of the Works submit proposals or take other action as appropriate to minimize any delay and to recover any lost time.

260 SITE MEETINGS

- General: Site meetings will be held to review progress and other matters arising from administration of the Contract.
- Frequency: Every four weeks.
- Location: On-site.
- Accommodation: Ensure availability at the time of such meetings.
- Attendees. Attend meetings and inform subcontractors and suppliers when their presence is required.
- Chairperson (who will also take and distribute minutes): Contract Administrator.

265 CONTRACTOR'S PROGRESS REPORT

- General: Submit a progress report at least two working days before the site meeting.
- Content: Notwithstanding the Contractor's obligations under the Contract the report must include:
  - A progress statement by reference to the master programme for the Works.
  - Details of any matters materially affecting the regular progress of the Works.
  - Subcontractors' and suppliers' progress reports.
  - Any requirements for further drawings or details or instructions to fulfil any obligations under Clause 1.7.2 of the Conditions of Contract.

270 CONTRACTOR'S SITE MEETINGS

- General: Hold meetings with appropriate subcontractors and suppliers shortly before main site meetings to facilitate accurate reporting of progress.

285 PARTIAL POSSESSION BY EMPLOYER

- Clause 2.25 of Conditions of Contract: Ensure all necessary access, services and other associated facilities are also complete.

290 NOTICE OF COMPLETION

- Requirement: Give notice of the anticipated dates of completion of the whole or parts of the Works.
- Associated works: Ensure necessary access, services and facilities are complete
- Period of notice (minimum): One week.

CONTROL OF COST

410 CASH FLOW FORECAST

- Submission: Before starting work on site, submit a forecast showing the gross valuation of the Works at the date of each Interim Certificate throughout the Contract period. Base on the programme for the Works.

420 REMOVAL/ REPLACEMENT OF EXISTING WORK

- Extent and location: Agree before commencement.
- Execution: Carry out in ways that minimize the extent of work.

430 PROPOSED INSTRUCTIONS

- Estimates: If a proposed instruction requests an estimate of cost, submit without delay and in any case within seven days.
- Include:
  - A detailed breakdown of the cost, including any allowance for direct loss and expense.
  - Details of any additional resources required.
  - Details of any adjustments to be made to the programme for the Works.
  - Any other information as is reasonably necessary to fully assess the implications of issuing such an instruction.
- Inability to comply: Inform immediately if it is not possible to comply with any of the above requirements.

440 MEASUREMENT

- Covered work: Give notice before covering work required to be measured.

450 DAYWORK VOUCHERS

- Before commencing work: Give reasonable notice to person countersigning daywork vouchers.
- Content: Before delivery each voucher must be:
  - Referenced to the instruction under which the work is authorised.
  - Signed by the Contractor's person in charge as evidence that the operatives' names, the time daily spent by each and the equipment and products employed are correct.
- Submit: By the end of the week in which the work has been executed.

460 INTERIM VALUATIONS

- Applications: Include details of amounts due under the Contract together with all necessary supporting information.
- Submission: At least seven days before established dates.

470 PRODUCTS NOT INCORPORATED INTO THE WORKS

- Ownership: At the time of each valuation, supply details of those products not incorporated into the Works which are subject to any reservation of title inconsistent with passing of property as required by the Conditions of Contract, together with their respective values.
- Evidence: When requested, provide evidence of freedom of reservation of title.

475 LISTED PRODUCTS STORED OFF SITE

- Evidence of Title: Submit reasonable proof that the property in 'listed items' is vested in the Contractor.
- Include for products purchased from a supplier:
  - A copy of the contract of sale and a written statement from the supplier that any conditions of the sale relating to the passing of property have been fulfilled and the products are not subject to any encumbrance or charge.
- Include for products purchased from a supplier by a subcontractor or manufactured or assembled by any subcontractor:
  - Copies of the subcontract with the subcontractor and a written statement from the subcontractor that any conditions relating to the passing of property have been fulfilled.

480 LABOUR AND EQUIPMENT RETURNS

- Daily records: Provide at the beginning of each week for verification.
- Records must show:
  - The number and description of craftsmen, labourers and other persons employed on or in connection with the Works, including those employed by subcontractors.
  - The number, type and capacity of all mechanical and power-operated equipment employed in constructing the Works.

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REPLACEMENTS AND INSERTIONS

330 PREPARATION FOR REPLACEMENT MASONRY

- Defective material: Carefully remove to the extent agreed. Do not disturb, damage or mark adjacent retained masonry.
- Existing metal fixings, frame members, etc: Report when exposed.
- Redundant metal fixings: Remove.
- Recesses: Remove projections and loose material; leave joint surfaces in a suitable condition to receive replacement units. Protect from adverse weather if units are not to be placed immediately.

365A REPLACEMENT OF BRICKS AS CLAUSE 265

385 LAYING REPLACEMENT MASONRY UNITS

- Exposed faces of new material: Keep to agreed face lines.
- Faces, angles and features: Align accurately. Set out carefully to ensure satisfactory junctions with existing masonry and maintain existing joint widths.
- Joint surfaces: Dampen to control suction as necessary.
- Laying units: On a full bed of mortar, all joints filled.
- Exposed faces. Keep clear of mortar and grout.

390 GROUTING JOINTS

- Grout mix: As clause 320 above.
- Joints that cannot be fully filled with bedding mortar: Grout thoroughly around replacement masonry units.
- Grouting: Keep grout back from exposed face to allow for the depth of pointing, using an approved temporary sealing material. Prevent grout staining exposed face.

MORTAR REPAIRS

510 PREPARATION FOR MORTAR REPAIRS

- Repair area: Scribe area of masonry to be removed using straight horizontal and vertical lines parallel to joints. Where repair area abuts joints, maintain existing joint widths and do not bridge joints.
- Decayed masonry: Cut back carefully to a minimum depth of 20 mm to a sound background. Where the depth of removal exceeds 50 mm, seek instructions.
- Precautions: Do not weaken masonry by removing excessive material. Do not damage adjacent masonry.
- Top and vertical reveals of repair area: Undercut.

515 REINFORCEMENT FOR MORTAR REPAIRS

- Material: Austenitic stainless steel, phosphor bronze or copper alloy wire, 3 mm diameter.
- Armatures: Form to suit profiles of mortar repair and provide effective reinforcement.
- Cover to reinforcement: Not less than 18 mm.
- Installation: Drill holes into background to receive reinforcement, and bond firmly with a suitable epoxy resin.

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A33 QUALITY STANDARDS/ CONTROL

STANDARDS OF PRODUCTS AND EXECUTIONS

110 INCOMPLETE DOCUMENTATION

- General: Where and to the extent that products or work are not fully documented, they are to be:
  - Of a kind and standard appropriate to the nature and character of that part of the Works where they will be used.
  - Suitable for the purposes stated or reasonably to be inferred from the project documents. Contract documents: Omissions or errors in description and/ or quantity shall not vitiate the Contract nor release the Contractor from any obligations or liabilities under the Contract.

120 WORKMANSHIP SKILLS

- Operatives: Appropriately skilled and experienced for the type and quality of work.
- Registration: With Construction Skills Certification Scheme.
- Evidence: Operatives must produce evidence of skills/ qualifications when requested.

130 QUALITY OF PRODUCTS

- Generally: New. (Proposals for recycled products may be considered).
- Supply of each product: From the same source or manufacturer.
- Whole quantity of each product required to complete the Works: Consistent kind, size, quality and overall appearance.
- Tolerances: Where critical, measure a sufficient quantity to determine compliance.
- Deterioration: Prevent. Order in suitable quantities to a programme and use in appropriate sequence.

135 QUALITY OF EXECUTION

- Generally: Fix, apply, install or lay products securely, accurately, plumb, neatly and in alignment.
- Colour batching: Do not use different colour batches where they can be seen together.
- Dimensions: Check on-site dimensions.
- Finished work: Not defective, e.g. not damaged, disfigured, dirty, faulty, or out of tolerance.
- Location and fixing of products: Adjust joints open to view so they are even and regular

140 COMPLIANCE

- Compliance with proprietary specifications: Retain on site evidence that the proprietary product specified has been supplied.
- Compliance with performance specifications: Submit evidence of compliance, including test reports indicating:
  - Properties tested.
  - Pass/ fail criteria.
  - Test methods and procedures.
  - Test results.
  - Identity of testing agency.
  - Test dates and times.
  - Identities of witnesses.
  - Analysis of results.

150 INSPECTIONS

- Products and executions: Inspection or any other action must not be taken as approval unless confirmed in writing 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.

160 RELATED WORK

- Details: Provide all trades with necessary details of related types of work. Before starting each new type or section of work ensure previous related work is:
  - Appropriately complete.
  - In accordance with the project documents.
  - To a suitable standard.
  - In a suitable condition to receive the new work.
- Preparatory work: Ensure all necessary preparatory work has been carried out.

170 MANUFACTURER'S RECOMMENDATIONS/ INSTRUCTIONS

- General: Comply with manufacturer's printed recommendations and instructions current on the date of the Invitation to tender.
- Changes to recommendations or instructions: Submit details.
- Ancillary products and accessories: Use those supplied or recommended by main product manufacturer.
- Agrément certified products: Comply with limitations, recommendations and requirements of relevant valid certificates.

180 WATER FOR THE WORKS

- Mains supply: Clean and uncontaminated.
- Other: Do not use until:
  - Evidence of suitability is provided.
  - Tested to BS EN 1008 if instructed.

SAMPLES/ APPROVALS

210 SAMPLES

- Products or executions: Comply with all other specification requirements and in respect of the stated or implied characteristics either:
  - To an express approval.
  - To match a sample expressly approved as a standard for the purpose.

220 APPROVAL OF PRODUCTS

- Submissions, samples, inspections and tests: Undertake or arrange to suit the Works programme.
- Approval: Relates to a sample of the product and not to the product as used in the Works. Do not confirm orders or use the product until approval of the sample has been obtained.
- Complying sample: Retain in good, clean condition on site. Remove when no longer required.

230 APPROVAL OF EXECUTION

- Submissions, samples, inspections and tests: Undertake or arrange to suit the Works programme.
- Approval: Relates to the stated characteristics of the sample. (If approval of the finished work as a whole is required this is specified separately). Do not conceal, or proceed with affected work until compliance with requirements is confirmed.
- Complying sample: Retain in good, clean condition on site. Remove when no longer required.

ACCURACY/ SETTING OUT GENERALLY

320 SETTING OUT

- General: Submit details of methods and equipment to be used in setting out the Works.
- Levels and dimensions: Check and record the results on a copy of drawings. Notify discrepancies and obtain instructions before proceeding.
- Inform: When complete and before commencing construction.

330 APPEARANCE AND FIT

- Tolerances and dimensions: If likely to be critical to execution or difficult to achieve, as early as possible either:
  - Submit proposals; or
  - Arrange for inspection of appearance of relevant aspects of partially finished work.
- General tolerances (maximum): To BS 5606, tables 1 and 2.

SERVICES GENERALLY

410 SERVICES REGULATIONS

- New or existing services: Comply with the Byelaws or Regulations of the relevant Statutory Authority.

420 WATER REGULATIONS/ BYELAWS NOTIFICATION

- Requirements: Notify Water Undertaker of any work carried out to or which affects new or existing services and submit any required plans, diagrams and details.
- Consent: Allow adequate time to receive Undertaker's consent before starting work Inform immediately if consent is withheld or is granted subject to significant conditions.

430 WATER REGULATIONS/ BYELAWS CONTRACTOR'S CERTIFICATE

- On completion of the work: Submit (copy where also required to the Water Undertaker) a certificate including:
  - The address of the premises
  - A brief description of the new installation and/ or work carried out to an existing installation.
  - The Contractor's name and address.
  - A statement that the installation complies with the relevant Water Regulations or Byelaws.
  - The name and signature of the individual responsible for checking compliance.
  - The date on which the installation was checked.

445 SERVICE RUNS

- General: Provide adequate space and support for services, including unobstructed routes and fixings.
- Ducts, chases and holes: Form during construction rather than cut.
- Coordination with other works: Submit details of locations, types/ methods of fixing of services to fabric and identification of runs and fittings.

SUPERVISION/ INSPECTION/ DEFECTIVE WORK

510 SUPERVISION

- General: 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 the close control of competent trade supervisors to ensure maintenance of satisfactory quality and progress.
- Replacement: Give maximum possible notice before changing person in charge or site agent.

520 COORDINATION OF ENGINEERING SERVICES

- Suitability: Site organisation staff must include one or more persons with appropriate knowledge and experience of mechanical and electrical engineering services to ensure compatibility between engineering and the Works generally.
- Evidence: Submit when requested CVs or other documentary evidence relating to the staff concerned.

530 OVERTIME WORKING

- Notice: Prior to overtime being worked, submit details of times, types and locations of work to be done.
  - Minimum period of notice: Two days.
- Concealed work: If executed during overtime for which notice has not been given, it may be required to be opened up for inspection and reinstated at the Contractor's expense.

540 DEFECTS IN EXISTING WORK

- Undocumented defects: When discovered, immediately give notice. Do not proceed with affected related work until response has been received.
- Documented remedial work: Do not execute work which may:
  - Hinder access to defective products or work; or
  - Be rendered abortive by remedial work.

550 ACCESS FOR INSPECTION

- Removal: Before removing scaffolding or other facilities for access, give notice of not less than one week.

560 TESTS AND INSPECTIONS

- Timing: Agree and record dates and times of tests and inspections to enable all affected parties to be represented.
- Confirmation: One working day prior to each such test or inspection. If sample or test is not ready, agree a new date and time.
- Records: Submit a copy of test certificates and retain copies on site.

580 CONTINUITY OF THERMAL INSULATION

- Record and report: Confirm that work to new, renovated or upgraded thermal elements has been carried out to conform to specification. Include:
  - The address of the premises.
  - The Contractor's name and address.
  - The name, qualification and signature of the competent person responsible for checking compliance.
  - The date on which the installation was checked.
- Submit: Before completion of the Works.
- Copy: To be lodged in Building Manual.

610 PROPOSALS FOR RECTIFICATION OF DEFECTIVE PRODUCTS/ EXECUTIONS

- Proposals: Immediately any work or product is known, or appears, to be not in accordance with the Contract, submit proposals for opening up, inspection, testing, making good, adjustment of the Contract Sum, or removal and re-execution.
- Acceptability: Such proposals may be unacceptable and contrary instructions may be issued.

620 MEASURES TO ESTABLISH ACCEPTABILITY

- General: Wherever inspection or testing shows that the work, materials or goods are not in accordance with the contract and measures (e.g. testing, opening up, experimental making good) are taken to help in establishing whether or not the work is acceptable, such measures:
  - Will be at the expense of the Contractor.
  - Will not be considered as grounds for extension of time.

630 QUALITY CONTROL

- Procedures: Establish and maintain to ensure that the Works, including the work of subcontractors, comply with specified requirements.
- Records: Maintain full records, keep copies on site for inspection, and submit copies on request.
- Content of records:
  - Identification of the element, item, batch or lot including location in the Works.
  - Nature and dates of inspections, tests and approvals.
  - Nature and extent of nonconforming work found.
  - Details of corrective action.

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WORK AT OR AFTER COMPLETION

710 WORK BEFORE COMPLETION

- General: Make good all damage consequent upon the Works.
  Temporary markings, coverings and protective wrappings: Remove unless otherwise instructed.
- Cleaning: Clean the Works thoroughly inside and out, including all accessible ducts and voids. Remove all splashes, deposits, efflorescence, rubbish and surplus materials.
- Cleaning materials and methods: As recommended by manufacturers of products being cleaned, and must not damage or disfigure other materials or construction.
- COSHH dated data sheets: Obtain for all materials used for cleaning and ensure they are used only as recommended by their manufacturers.
- Minor faults: Touch up in newly painted work, carefully matching colour and brushing out edges. Repaint badly marked areas back to suitable breaks or junctions.
- Moving parts of new work: Adjust, ease and lubricate as necessary to ensure easy and efficient operation, including doors, windows, drawers, ironmongery, appliances, valves and controls.

720 SECURITY AT COMPLETION

- General: Leave the Works secure with, where appropriate, all accesses closed and locked.
- Keys: Account for and adequately label all keys and hand over to Employer with itemized schedule, retaining duplicate schedule signed by Employer as a receipt.

730 MAKING GOOD DEFECTS

- Remedial work: Arrange access with Contract Administrator.
- Rectification: Give reasonable notice for access to the various parts of the Works.
- Completion: Notify when remedial works have been completed.

A34 SECURITY/ SAFETY/ PROTECTION

SECURITY, HEALTH AND SAFETY

110 PRETENDER HEALTH AND SAFETY PLAN/ PRECONSTRUCTION INFORMATION

- Location: Integral with the project Preliminaries, including but not restricted to the following sections:
  - Description of project: Sections A10 and A11.
  - Client's consideration and management requirements: Sections A12, A13 and A36.
  - Environmental restrictions and on-site risks: Section A12, A35 and A34.
  - Significant design and construction hazards: Section A34.
  - The Health and Safety File: Section A37.

120A EXECUTION HAZARDS

- Common hazards: Not listed. Control by good management and site practise.
- Significant hazards: The design of the project includes the following:
  - Refer to the Designers Risk Assessment for information and also the asbestos register contained in the appendices.
  Asbestos based materials in the existing roof covering and also asbestos rope gaskets in the roof light glazing.
  Working above and adjacent to fragile roof lights.
  Working at height.

130A PRODUCT HAZARDS

- Hazardous substances: Site personnel levels must not exceed occupational exposure standards and maximum exposure limits stated in the current version of HSE document EH40: Occupational Exposure Limits.
- Common hazards: Not listed. Control by good management and site practise.
- Significant hazards: Specified construction materials include the following:
  - Refer to the Pre-Construction Health & Safety Plan.
  Working with lead based products and working with fragile glazing materials.

140 CONSTRUCTION PHASE HEALTH AND SAFETY PLAN

- Submission: Present to the Employer/ Client no later than two weeks before commencement on site.
- Confirmation: Do not start construction work until the Employer has confirmed in writing that the Construction Phase Health and Safety Plan includes the procedures and arrangements required by the CDM Regulations.
- Content: Develop the plan from and draw on the Outline Construction Phase Health and Safety Plan, clause A30/570, and the Pre-tender Health and Safety Plan/ Preconstruction information.

150 SECURITY

- Protection: Safeguard the site, the Works, products, materials, and any existing buildings affected by the Works from damage and theft.
- Access: Take all reasonable precautions to prevent unauthorized access to the site, the Works and adjoining property.
- Special requirements: - Take down all ladders to fixed scaffolding at the end of every working day.
  - Site access and egress to be in accordance with the rules and regulations of Manchester Metropolitan University.

160 STABILITY

- Responsibility: Maintain the stability and structural integrity of the Works during the Contract.
- Design loads: Obtain details, support as necessary and prevent overloading.

170 OCCUPIED PREMISES

- Extent: Existing buildings will be occupied and/ or used during the Contract as follows: For the purposes of teaching post graduate students, buildings adjacent to the Righton Building will also be occupied for the purpose of teaching university students .
- Works: Carry out without undue inconvenience and nuisance and without danger to occupants and users.
- Overtime: If 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 authorized in advance.

180 PASSES

- Controlled areas: Passes will be required for access to the site roof area each day. All persons involved in the project, whether based on-site or visiting will be required to sign in at reception / security and obtain a roof access pass. Passes must be displayed clearly at all times whilst on-site within the grounds of the Righton Building or other grounds of the University. Failure to do so will result in the operative / visitor being refused access to the site.
- Authorised persons: Submit a list of the names of all persons requiring passes together with any other related information reasonably required.
- Return of passes: When requested or on completion of the work to which the pass relates.

190 OCCUPIER'S RULES AND REGULATIONS

- Compliance: Conform to the occupier's rules and regulations affecting the site.
- Copies:
  - Location: Righton Building
  - Arrangements for inspection: With the employer.

200 MOBILE TELEPHONES

- Use: Not permitted in the following areas:
  - Teaching area's.

210 EMPLOYER'S REPRESENTATIVES SITE VISITS

- Safety: Submit details in advance, to the Employer or the person identified in clause A10/140, of safety provisions and procedures (including those relating to materials, which may be deleterious), which will require their compliance when visiting the site.
- Protective clothing and/ or equipment: Provide and maintain on site for the Employer and the person stated in clause A10/140 and other visitors to the site.

220 WORKING PRECAUTIONS/ RESTRICTIONS

- Hazardous areas: Operatives must take precautions as follows:
  - Work area: Roof area.
  - Precautions: Refer to the Pre-Construction Health & Safety Plan.
- Permit to work: Operatives must comply with procedures in the following areas:
  - Work area: Roof Area.
  - Procedures: Refer to the Pre-Construction Health & Safety Plan.

PROTECT AGAINST THE FOLLOWING

310 EXPLOSIVES

- Use: Not permitted

330 NOISE CONTROL

- Standard: Comply generally with the recommendations of BS 5228-1, clause 9.3 to minimize noise levels during the execution of the Works.
- Noise levels from the Works: Maximum level: 85 dB(A) when measured from source.
- Equipment: Fit compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.
- Restrictions: Do not use:
  - Pneumatic drills and other noisy appliances without consent during the hours of 8.30am - 5pm.
  - Radios or other audio equipment or permit employees to use in ways or at times that may cause nuisance.

340 POLLUTION

- Prevention: Protect the site, the Works and the general environment including streams and waterways against pollution.
- Contamination: If pollution occurs inform immediately, including to the appropriate Authorities and provide relevant information.

350 PESTICIDES

- Use: Not permitted.

360 NUISANCE

- Duty: Prevent nuisance from smoke, dust, rubbish, vermin and other causes.
- Surface water: Prevent hazardous build-up on site, in excavations and to surrounding areas and roads.

370 ASBESTOS CONTAINING MATERIALS

- Duty: Report immediately any suspected materials discovered during execution of the Works.
  - Do not disturb.
  - Agree methods for safe removal or encapsulation.

375 ANTIQUITIES

- Duty. Report immediately any fossils, antiquities and other objects of interest or value discovered during execution of the works.
- Preservation: Keep objects in the exact position and condition in which they were found.
- Special requirements: Report to the employer and CA.

380 FIRE PREVENTION

- Duty: Prevent personal injury or death, and damage to the Works or other property from fire.
- Standard: Comply with Joint Code of Practice 'Fire Prevention on Construction Sites', published by the Construction Confederation and The Fire Protection Association (The 'Joint Fire Code').

390 SMOKING ON SITE

- Smoking on site: Not permitted.

400 BURNING ON SITE

- Burning on site: Not permitted.

410 MOISTURE

- Wetness or dampness: Prevent, where this may cause damage to the Works.
- Drying out: Control humidity and the application of heat to prevent:
  - Blistering and failure of adhesion.
  - Damage due to trapped moisture.
  - Excessive movement.

420 INFECTED TIMBER

- Removal: Where instructed to remove timber affected by fungal/ insect attack from the building, minimize the risk of infecting other parts of the building.

430 WASTE

- Includes: Rubbish, debris, spoil, containers and surplus material.
- Minimize: Keep the site and Works clean and tidy.
- Remove: Frequently and dispose off site in a safe and competent manner:
  - Non-hazardous material: In a manner approved by the Waste Regulation Authority.
  - Hazardous material: As directed by the Waste Regulation Authority and in accordance with relevant regulations.
- Voids and cavities in the construction: Remove rubbish, dirt and residues before closing in.
- Waste transfer documentation: Retain on site.

440 ELECTROMAGNETIC INTERFERENCE

- Duty: Prevent excessive electromagnetic disturbance to apparatus outside the site.

450 LASER EQUIPMENT

- Construction laser equipment: Install, use and store in accordance with BS EN 60825-1 and the manufacturer's instructions.
- Class 1 or Class 2 laser equipment: Ensure laser beam is not set at eye level and is terminated at the end of its useful path.
- Class 3A and Class 3B laser equipment: Do not use without approval and subject to submission of a method statement on its safe use.

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PROTECT THE FOLLOWING

510 EXISTING SERVICES

- Confirmation: Notify all service authorities, statutory undertakers and/ or adjacent owners of proposed works not less than one week before commencing site operations.
- Identification: Before starting work, check and mark positions of mains/ services. Where positions are not shown on drawings obtain relevant details from service authorities, statutory undertakers or other owners.
- Work adjacent to services:
  - Comply with service authority's/ statutory undertaker's recommendations.
  - Adequately protect, and prevent damage to services: Do not interfere with their operation without consent of service authorities/ statutory undertakers or other owners.
- Identifying services:
  - Below ground: Use signboards, giving type and depth;
  - Overhead: Use headroom markers.
- Damage to services: If any results from execution of the Works:
  - Immediately give notice and notify appropriate service authority/ statutory undertaker.
  - Make arrangements for the work to be made good without delay to the satisfaction of service authority/ statutory undertaker or other owner as appropriate.
  - Any measures taken to deal with an emergency will not affect the extent of the Contractor's liability.
- Marker tapes or protective covers: Replace, if disturbed during site operations, to service authority's/ statutory undertakers recommendations.

520 ROADS AND FOOTPATHS

- Duty: Maintain roads and footpaths within and adjacent to the site and keep clear of mud and debris.
- Damage caused by site traffic or otherwise consequent upon the Works: Make good to the satisfaction of the Employer, Local Authority or other owner.

530 EXISTING TOPSOIL/ SUBSOIL

- Duty: Prevent over compaction of existing topsoil and subsoil in those areas which may be damaged by construction traffic, parking of vehicles, temporary site accommodation or storage of materials and which will require reinstatement prior to completion of the Works.
- Protection: Before starting work submit proposals for protective measures.

540 RETAINED TREES/ SHRUBS/ GRASSED AREAS

- Protection: Preserve and prevent damage, except those not required.
- Replacement: Mature trees and shrubs if uprooted, destroyed, or damaged beyond reasonable chance of survival in their original shape, as a consequence of the Contractor's negligence, must be replaced with those of a similar type and age at the Contractor's expense.

550 RETAINED TREES

- Protected area: Unless agreed otherwise do not:
  - Dump spoil or rubbish, excavate or disturb topsoil, park vehicles or plant, store materials or place temporary accommodation within an area which is the larger of the branch spread of the tree or an area with a radius of half the tree's height, measured from the trunk.
  - Sever roots exceeding 25 mm in diameter. If unintentionally severed give notice and seek advice.
  - Change level of ground within an area 3 m beyond branch spread.

560 EXISTING FEATURES

- Protection: Prevent damage to existing buildings, fences, gates, walls, roads, paved areas and other site features, which are to remain in position during execution of the Works.
- Special requirements: All hardstandings and landscaped areas where the proposed site compound is to be located (including all routes to / from the area) must be suitably protected against damage whether accidental or not and must be repaired at the end of the contract if damage occurs.

570 EXISTING WORK

- Protection: Prevent damage to existing property undergoing alteration or extension.
- Removal: Minimum amount necessary.
- Replacement work: To match existing.

580 BUILDING INTERIORS

- Protection: Prevent exposure to weather during course of alteration work

600 EXISTING FURNITURE, FITTINGS AND EQUIPMENT

- Protection: Prevent damage or move as necessary to enable the Works to be executed. Reinstate in original positions.
- Extent: Before work in each room starts the Employer will remove the following:
  - All items directly in the atrium area's.

610 ESPECIALLY VALUABLE/ VULNERABLE ITEMS

- Protection: Ensure provision and maintenance of special protective measures to prevent damage to the following:
  - Existing internal and external building fabric.
- Method statement: Submit within one week of request describing special protection to be provided.

625 ADJOINING PROPERTY RESTRICTIONS

- Precautions:
  - Prevent trespass of workpeople and take precautions to prevent damage to adjoining property.
  - Pay all charges.
  - Remove and make good on completion or when directed.
- Damage: Bear cost of repairing damage arising from execution of the Works.

630 EXISTING STRUCTURES

- Duty: Check proposed methods of work for effects on adjacent structures inside and outside the site boundary.
- Supports: During execution of the Works:
  - Provide and maintain all incidental shoring, strutting, needling and other supports as may be necessary to preserve stability of existing structures on the site or adjoining, that may be endangered or affected by the Works.
  - Do not remove until new work is strong enough to support existing structure
  - Prevent overstressing of completed work when removing supports.
- Adjacent structures: Monitor and immediately report excessive movement.
- Standard: Comply with BS 5975 and BS EN 12812.

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A35 SPECIFIC LIMITATIONS ON METHOD/ SEQUENCE/ TIMING

110 SCOPE

- General: The limitations described in this section are supplementary to limitations described or implicit in information given in other sections or on the drawings.

120 DESIGN CONSTRAINTS

- Details: All timber framing to the rooflights to be splice repaired in accordance with the instructions of the local conservation officer and design specification.

130 METHOD/ SEQUENCE OF WORK

- Specific Limitations: Include the following in the programme:
  - Site set up.
  - Scaffolding installation including roof top tented structures.
  - Repairs to roof lights.
  - Masonary repairs / render installation.
  - Roofing and associated works.

140A SCAFFOLDING

- Standing scaffolding: Make available to subcontractors at all times. The contractor is price the scaffolding as detailed in section 'C' 'schedule of work'.

160 USE OR DISPOSAL OF MATERIALS

- Specific limitations: Hazardous materials must be disposed off in accordance with the appropriate regulations / standards.

170 WORKING HOURS

- Specific limitations: 8.30am to 5pm Monday to Friday. Work exceeding levels indicated in Clause A34 / 330 to be undertaken on Saturday's as directed by the CA .

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A36 FACILITIES/ TEMPORARY WORK/ SERVICES

GENERALLY

110 SPOIL HEAPS, TEMPORARY WORKS AND SERVICES
- Location: Give notice of intended siting.
- Maintenance: Alter, adapt and move as necessary. Remove when no longer required and make good.

ACCOMMODATION

210 ROOM FOR MEETINGS
- Facilities: Provide suitable temporary accommodation for site meetings, adequately heated and lit. The room may be part of the Contractor's own site offices.
- Furniture and Equipment: Provide table and chairs for 6 people.

230 TEMPORARY ACCOMMODATION
- Proposals for temporary accommodation and storage for the Works: Submit two weeks prior to the Commencement Date.
- Details to be included: Type of accommodation and storage, its siting and the programme for site installation and removal.

TEMPORARY WORKS

310 ROADS
- Permanent roads, hard standings and footpaths on the site: The following may be used, subject to clause A34/520:
  - Details: access roads to Righton Building.
  - Restrictions on use: speed limits and parking restrictions must be adhered to.
  - Protective or remedial measures: as required.

340 NAME BOARDS/ ADVERTISEMENTS
- Name boards/ advertisements: Not permitted.

SERVICES AND FACILITIES

420 LIGHTING AND POWER
- Supply: Electricity from the Employer's mains may be used for the Works as follows:
  - Metering: Free of charge.
  - Point of supply: Righton Building only.
  - Available capacity: contractor to assess on site.
  - Frequency: 50 Hz.
  - Phase: Contractor to assess on site.
  - Current: Alternating.
- Continuity: The Employer will not be responsible for the consequences of failure or restriction in supply.

430 WATER

- Supply: The Employer's mains may be used for the Works as follows:
  - Metering: Free of charge.
  - Source: Mains.
  - Location of supply point: To be agreed (within 50m of general work area).
  - Conditions/ Restrictions: If damage occursat the water source to finishes and fixtures, etc., all damage caused by the contractor must be made good at the expense of the Principal Contractor to the satisfaction of the CA at completion of the works or as instructed.
- Continuity: The Employer will not be responsible for the consequences of failure or restriction in supply.

440 MOBILE TELEPHONES

- Direct communication: As soon as practicable after the Date of Possession provide the Contractor's person in charge with a mobile telephone.

550 THERMOMETERS

- General: Provide on site and maintain in accurate condition a maximum and minimum thermometer for measuring atmospheric shade temperature, in an approved location.

570 PERSONAL PROTECTIVE EQUIPMENT

- General: Provide for the sole use of those acting on behalf of the Employer, in sizes to be specified:
  - Safety helmets to BS EN 397, neither damaged nor time expired. Number required: 2.
  - High visibility waistcoats to BS EN 471 Class 2. Number required: 2.
  - Safety boots with steel insole and toecap to BS EN ISO 20345. Pairs required: Site operatives and visitors to site to provide their own suitable protective footwear .
  - Disposable respirators to BS EN 149.FFP1S.
  - Eye protection to BS EN 166.
  - Ear protection - muffs to BS EN 352-1, plugs to BS EN 352-2
  - Hand protection - to BS EN 388, 407, 420 or 511 as appropriate.

A37 OPERATION/ MAINTENANCE OF THE FINISHED BUILDING

GENERALLY

110 THE BUILDING MANUAL

- Purpose: The Building Manual (incorporating the Health and Safety File) is to be a comprehensive information source and guide for the building owner and end users providing a complete understanding of the building and its systems to enable efficient and safe operation and maintenance.
- Compilation:
  - Prepare all information for Contractor designed or performance specified work including as-built drawings.
  - Obtain or prepare all other information to be included in the Manual.
- Content:
  - Part 1: General: Content as clause 130.
  - Part 2: Building fabric: Content as clause 140.
  - Part 3: Building services: Content as clause 150.
- Presentation of Manual: As clause 160.
- Reviewing the Manual:
  - Review process: Submit a complete draft. Amend in the light of any comments and resubmit. Do not proceed with production of the final copies until authorized.
  - Latest date for submission: one weeks before the date for submission of final copies.
- Final copies of the Manual:
  - Number of copies: 3.
  - Latest date for submission; one weeks before the date for completion stated in the contract.
- As-built drawings:
  - Number of copies: 3.
  - Medium: Paper folded to A4.

120A THE HEALTH AND SAFETY FILE

- Purpose: To provide information about the structure or materials used, which might affect the health or safety of anyone if construction works, (including cleaning, maintenance, alterations, refurbishment and demolition) are carried out.
- Contractor designed and performance specified work: Obtain or prepare details of construction methods and materials, general maintenance instructions and as-built drawings.
- Other information: Obtain or prepare details of utilities and services, materials hazards, access requirements/restrictions and maintenance and decommissioning instructions.
- Number of copies: Submit 3 copies to CDM coordinator.
- Latest date for submission: one weeks before the date for completion stated in the contract.

130 CONTENT OF THE BUILDING MANUAL PART 1: GENERAL

- The property:
  - A description of the buildings.
  - Details of ownership.
- The parties. Names, addresses (including e-mails), telephone and fax numbers of the following:
  - Consultants and designers, including name and number of individuals to be contacted in case of emergency.
  - Authorities and statutory undertakers plus copies of consents and approvals.
  - Contractors, subcontractors, suppliers and manufacturers.
  - Competent persons issuing certification or reports under the Building Regulations. Include qualifications and/ or name of registration body.
  - Maintenance contractors.
- Operational requirements and constraints of a general nature: Include details not relevant to other parts of the Building Manual.
- The fire safety strategy for the buildings and site: Include drawings showing fire appliance routes, emergency escape routes, fire resisting doors, location of emergency and fire fighting systems, services shut-off valves, switches, etc.

140 CONTENT OF THE BUILDING MANUAL PART 2: BUILDING FABRIC

- Design criteria: Floor and roof loadings, loading restrictions, insulation values, fire ratings and other performance requirements.
- Construction of the building:
  - A detailed description of methods and materials used.
  - As-built drawings recording details of construction, together with an index.
  - Information about repair, renovation or demolition.
- Maintenance of the building fabric: Instructions for general maintenance, detailing work to be done, acceptable tolerances and frequency of operation.
- Product details: Copies of manufacturers' current literature including COSHH dated data sheets and recommendations for cleaning, repair and maintenance.
- Environmental and trafficking conditions: Details of those that may result in damage/ disfigurement.
- Fixtures and fittings: Schedules including manufacturer and product reference.
- Guarantees, warranties and maintenance agreements: obtain from suppliers, subcontractors and manufacturers.
- Test certificates and reports required in the specification and by the Building Regulations including:
  - Energy rating.
  - Air permeability.
  - Resistance to passage of sound.
  - Continuity of insulation.

150 CONTENT OF THE BUILDING MANUAL PART 3: BUILDING SERVICES

- Description of the systems:
  - Ensure that the building owner's and/ or user's staff fully understand the scope and facilities provided.
  - List maximum loads, services capacity and restrictions.
  - Include limitations of any user performance.
- Operation:
  - A description of the mode of operation of all systems.
  - Starting up, operating and shutting down instructions for all equipment and systems.
  - Control sequences for all systems.
  - Procedures for seasonal changeovers.
  - Procedures for faultfinding.
- Diagrammatic drawings: For each system indicating principal items of plant, equipment, valves etc.
- Record drawings: Photo-reduced and with an index.
  Size: paper folded to A4
- Identification of services: A legend for colour-coded services.
- Schedules (system by system) of plant, equipment, valves, etc: Include locations, duties, performance figures and unique numbers cross-referenced to the record drawings, diagrammatic drawings and schedules.
- Product details:
  - Name, address and telephone number of the manufacturer of every item of plant and equipment together with catalogue list numbers.
  - Manufacturers' technical literature for plant and equipment. Include detailed drawings, electrical circuit details and operating and maintenance instructions.
  - Instructions for dismantling and removing equipment and systems.
- Test Certificates required by the Building Regulations and specification (including but not limited to electrical circuit tests, corrosion tests, type tests, works tests, start and commissioning tests): For the plant, equipment, valves, etc., used in the installations.
- Guarantees, warranties and maintenance agreements: Obtain from subcontractors and manufacturers.
- Equipment settings: Schedules of fixed and variable equipment settings established during commissioning.
- Preventative maintenance: Recommendations for frequency and procedures to be adopted to ensure the most efficient operation of the systems.
- Lubrication: Schedules for all lubricated items.
- Consumables: A list of all consumable items.
- Spares: A list of recommended spares to be kept in stock by the building owner, being those items subject to wear or deterioration and which may involve the building owner in extended deliveries when replacements are required at some future date.
- Emergencies: Procedures, including telephone numbers for emergency services.

160 PRESENTATION OF BUILDING MANUAL

- Format: A4 size, plastics 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, to be folded and accommodated in the binders so that they may be unfolded without being detached from the rings.
- As-built drawings: The main sets may form annexes to the Manual.

220 TRAINING

- Objective: Before Completion, explain and demonstrate to the Employer's maintenance staff the purpose, function and operation of the installations including items and procedures listed in the Building Manual.
- Operating time: Include a minimum of two days.

230 SPARE PARTS

- General: Before Completion submit a priced schedule of spare parts that the Contractor recommends should be obtained and kept in stock for maintenance of the services installations.
- Content: Include in the priced schedule for:
  - Manufacturers' current prices, including packaging and delivery to site.
  - Checking receipts, marking and numbering in accordance with the schedule of spare parts.
  - Referencing to the plant and equipment list in Part 3 of the Building Manual.
  - Painting, greasing, etc. and packing to prevent deterioration during storage.
- Latest date for submission: Two weeks before completion.

250 TOOLS

- General: Provide tools and portable indicating instruments for the operation and maintenance of all services plant and equipment (except any installed under Named Subcontracts) together with suitable means of identifying, storing and securing.
- Quantity: Two complete sets.
- Time of submission: At completion.

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A40 CONTRACTOR'S GENERAL COST ITEMS: MANAGEMENT AND STAFF

110 MANAGEMENT AND STAFF

- Cost significant items: TO BE COMPLETED BY THE CONTRACTOR AND ANY COSTS ADDED HERE TO BE CARRIED TO THE PRELIMINARIES COLLECTION PAGE.

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A41 CONTRACTOR'S GENERAL COST ITEMS: SITE ACCOMMODATION

110 SITE ACCOMMODATION

- Details: Site accommodation required or made/ not made available by the Employer: See section A36.
- Cost significant items: TO BE COMPLETED BY THE CONTRACTOR AND ANY COSTS ADDED HERE TO BE CARRIED TO THE PRELIMINARIES COLLECTION PAGE.

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A42 CONTRACTOR'S GENERAL COST ITEMS: SERVICES AND FACILITIES

110 SERVICES AND FACILITIES

- Details: Services or facilities required or made/ not made available by the Employer: See section A36.
- Cost significant items: TO BE COMPLETED BY THE CONTRACTOR AND ANY COSTS ADDED HERE TO BE CARRIED TO THE PRELIMINARIES COLLECTION PAGE.

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A43 CONTRACTOR'S GENERAL COST ITEMS: MECHANICAL PLANT

110 MECHANICAL PLANT

- Cost significant items: TO BE COMPLETED BY THE CONTRACTOR AND ANY COSTS ADDED HERE TO BE CARRIED TO THE PRELIMINARIES COLLECTION PAGE.

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A44 CONTRACTOR'S GENERAL COST ITEMS: TEMPORARY WORKS

110 TEMPORARY WORKS

- Details: Temporary works required or made/ not made available by the Employer: See section A36.
- Cost significant items: TO BE COMPLETED BY THE CONTRACTOR AND ANY COSTS ADDED HERE TO BE CARRIED TO THE PRELIMINARIES COLLECTION PAGE.

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A53 WORK BY STATUTORY AUTHORITIES/ UNDERTAKERS

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SECTION A - PRELIMINARIES

			£	P
	The Contractor is to itemise and insert hereunder costs in connection with Preliminaries pages 1 – 47 inclusive.			

To Tender Summary

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C10 Site survey

To be read with Preliminaries/ General conditions.

GENERAL

110 EXTENT OF SURVEY
- Location: Righton Building.
- Scope: Roof Coverings, Roof deck timbers and rainwater outlets.
- Objectives: To determin the methods for safe removal of the asbestos containing existing roof covering, condition of the timber roof deck and sufficiency of rainwater down pipes.

140 ACCESS TO THE SITE FOR SURVEYING
- Details: Roof acces permit required.
- Contact: CA.

160 UNFORESEEN HAZARDS
- Unrecorded hazards and hazardous materials: Give notice when found. Do not disturb.

170 SURVEY INSTRUMENTS
- Equipment calibration: In accordance with manufacturer's recommendations.
- Site use calibration: To BS 7334.
- Calibration: Use only persons accredited by the United Kingdom Accreditation Service (UKAS).
- Calibration compliance: Submit evidence prior to use.

180 WORKMANSHIP
- Operatives: Appropriately skilled and experienced for the type of work
- Qualifications of operatives: Submit evidence prior to commencement.

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C20 Demolition

To be read with Preliminaries/ General conditions

GENERAL REQUIREMENTS

110 DESK STUDY/ SURVEY

- Scope: Before starting demolition work, examine available information, carry out a survey of the structures, site and surrounding area.
- Report and method statements: Submit, describing:
  - Form, condition and details of the structures, site and surrounding area.
    Extent: Part removal of roof lights and roof access housing, including removal of render coat system to internal face of the parapet. In addition, investigations into the need for a structural design for the roof top scaffolding/tent and atrium scaffolding (see special requirements hereunder).
  - Form, location and removal methods of flammable, toxic or hazardous materials.
  - Form, location and removal methods of materials for reuse or recycling.
  - Type and location of adjoining or surrounding premises which may be adversely affected by noise, vibration, dust or removal of structure.
  - Identification and location of services above and below ground, including those required for the Contractor's own use. Arrangements for disconnection and removal of services.
  - Type and location of features of historical, archaeological, geological or ecological importance.
  - Sequence and method of demolition including details of specific pre-weakening.
  - Arrangements for protection of personnel and the public including exclusion of unauthorized persons.
  - Arrangements for control of site transport and traffic.
  - Proposed programme of work.
  - Special requirements: Structural calculations in support of method statements.
- Format of report: MS Word.

120 EXTENT OF DEMOLITION

- General: Subject to retention requirements specified elsewhere demolish structures down to As specified.

150 FEATURES TO BE RETAINED

- General: Keep in place and protect the following: building facade, roof deck and those parts of roof lights to be retained.

SERVICES AFFECTED BY DEMOLITION

210 SERVICES REGULATIONS

- Work carried out to or which affects new or existing services: Carry out in accordance with the Byelaws or Regulations of the relevant Statutory Authority.

220 LOCATION OF SERVICES

- Services affected by the Works: Locate and mark positions.
- Mains services: Arrange with the appropriate authorities for location and marking of positions.
  Standard: In accordance with National Joint Utilities Group (NJUG) 'Guidelines on the positioning and colour coding of utilities' apparatus'.

230 DISCONNECTION - ARRANGED BY CONTRACTOR

- General: Arrange with the appropriate authorities for disconnection of services and removal of fittings and equipment prior to starting demolition.

250 DRAINS IN USE

- General: Protect drains, manholes, inspection chambers, gullies, vent pipes and fittings still in use and ensure that they are kept free of debris.
- Damage: Make good damage arising from demolition work. Leave clean and in working order at completion.

260 BYPASS CONNECTIONS

- General: Provide as necessary to maintain continuity of services to occupied areas of the same and adjoining properties.
- Minimum notice to occupiers: 72 hours if shutdown is necessary during changeover.

270 SERVICES WHICH ARE TO REMAIN

- Damage: Give notice and notify service authority or owner of damage arising from the execution of the works.
- Repairs: Complete as directed, and to the satisfaction of the service authority or owner.

DEMOLITION WORK

310 WORKMANSHIP

- Standard: Demolish structures in accordance with BS 6187.
- Operatives:
  - Appropriately skilled and experienced for the type of work.
  - Holding or in training to obtain relevant CITB Certificates of Competence.
- Site staff responsible for supervision and control of work: Experienced in the assessment of risks involved and methods of demolition to be used.

320 GAS OR VAPOUR RISKS

- Precautions: Prevent fire or explosion caused by gas or vapour.

330 DUST CONTROL

- Method: Reduce by periodically spraying demolition works with an appropriate wetting agent. Keep public roadways and footpaths clear of mud and debris.

340 HEALTH HAZARDS

- Precautions: Protect site operatives and general public from hazards associated with vibration, dangerous fumes and dust arising during the course of the Works.

350 ADJOINING PROPERTY

- Temporary support and protection: Provide. Maintain and alter as necessary as work progresses.
- Damage: Minimize. Promptly repair.
  - Leave no unnecessary or unstable projections.
  - Make good to ensure safety, stability, weather protection and security.
- Support to foundations: Do not disturb.
- Defects: Report when exposed or becoming apparent.

360 STRUCTURES TO BE RETAINED
- Parts which are to be kept in place: Protect.
- Extent of work: Cut away and strip out with care to reduce the amount of making good to a minimum.

370 PARTLY DEMOLISHED STRUCTURES
- General: Leave in a stable condition, with adequate temporary support at each stage to prevent risk of uncontrolled collapse. Keep safe outside working hours.
- Temporary works: Prevent debris from overloading.
- Unauthorised persons: Prevent access.

380 DANGEROUS OPENINGS
- General: Illuminate and protect. Keep safe outside working hours.

390 ASBESTOS CONTAINING MATERIALS
- General: These are known to be present in the structures to be demolished in the following locations:
  Existing roof covering.
- Removal: By non-licensed Contractor further to statutory risk assessment.

391 ASBESTOS CONTAINING MATERIALS
- Discovery: Give notice immediately of suspected asbestos containing materials discovered during demolition work. Avoid disturbing such materials.
- Methods for safe removal. Submit details and statutory risk assessments.

410 UNFORESEEN HAZARDS
- Unrecorded voids, tanks, chemicals, etc. discovered during demolition: Give notice.
- Methods for safe removal, filling, etc: Submit details.

MATERIALS ARISING

510 CONTRACTOR'S PROPERTY
- Components and materials arising from the demolition work: Property of the Contractor except where otherwise provided.
  - Remove from site as work proceeds where not to be reused or recycled for site use.

520 RECYCLED MATERIALS
- Materials arising from demolition work: May be recycled or reused elsewhere in the project, subject to compliance with the appropriate specification.
- Evidence of compliance: Submit full details and supporting documentation.
- Verification: Allow adequate time in programme for verification of compliance 7 days.

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C41 Repairing/ Renovating/ Conserving masonry

To be read with Preliminaries/ General conditions

GENERALLY/ PREPARATION

110 SCOPE OF WORK
- Schedule: As per the the schedule of work document.
- Records of masonry to be repaired: Before starting work, use measurements and photographs as appropriate to record bonding patterns, joint widths, special features, etc.
- Identification of masonry units to be removed, replaced or repaired: Mark clearly, but not indelibly, on face of masonry units or parts of units to be cut out and replaced. Transcribe markings to drawings/ photographs.

120 SITE INSPECTION
- Purpose: To confirm type and extent of repair/ renovation/ conservation work shown on drawings and described in survey reports and schedules of work.
- Parties involved: Contract administrator and foreman mason.
- Timing: At least 5 working days before starting each section of work.
- Instructions issued during inspection: To be confirmed by CA.

130 REMOVAL OF PLANT GROWTHS FROM MASONRY
- Plants, root systems and associated soil/ debris: Carefully remove from joints, voids and facework.
- Removal of roots: Where growths cannot be removed completely without disturbing masonry seek instructions.
- Unwanted plants close to masonry: Where removal of root system is not possible or desirable, cut through stem as close to the ground as possible. Remove bark from stump and apply herbicide paste. Leave stump to wither.

WORKMANSHIP GENERALLY

150 POWER TOOLS
- Usage for removal of mortar: Permitted only with prior approval.

155 PUTLOG SCAFFOLDING
- Usage: Permitted.

160 PROTECTION OF MASONRY UNITS AND MASONRY
- Masonry units: Prevent overstressing during transit, storage, handling and fixing. Store on level bearers clear of the ground, separated with resilient spacers. Protect from adverse weather and keep dry. Prevent soiling, chipping and contamination. Lift units at designed lifting points, where provided.
- Masonry: Prevent damage, particularly to arrises, projecting features and delicate, friable surfaces. Prevent mortar/ grout splashes and other staining and marking on facework Protect using suitable nonstaining slats, boards, tarpaulins, etc. Remove protection on completion of the work.

165 STRUCTURAL STABILITY

- General: Maintain stability of masonry. Report defects, including signs of movement, that are exposed or become apparent during the removal of masonry units.

170 DISTURBANCE TO RETAINED MASONRY

- Retained masonry in the vicinity of repair works: Disturb as little as possible.
- Existing retained masonry: Do not cut or adjust to accommodate new or reused units.
- Retained loose masonry units and those vulnerable to movement during repair works: Prop or wedge so as to be firmly and correctly positioned.

180 WORKMANSHIP

- Skill and experience of site operatives: Appropriate for types of work on which they are employed.
  - Documentary evidence: Submit on request.

185 ADVERSE WEATHER

- General: Do not use frozen materials or lay masonry units on frozen surfaces.
- Air temperature: Do not bed masonry units or repoint:
  - In cement gauged mortars when ambient air temperature is at or below 3°C and falling or unless it is at least 1°C and rising, unless mortar has a minimum temperature of 4°C when laid and the masonry is adequately protected.
  - In hydraulic lime:sand mortars when ambient air temperature is at or below 5°C and falling or unless it is at least 3°C and rising.
  - In nonhydraulic lime:sand mortars in cold weather, unless approval is given.
- Temperature of the work: Maintain above freezing until mortar has fully set.
- Rain, snow and dew. Protect masonry by covering during precipitation, and at all times when work is not proceeding.
- Hot conditions and drying winds: Prevent masonry from drying out rapidly.
- New mortar damaged by frost: Rake out and replace.

190 CONTROL SAMPLES

- General: Complete an area of each of the following types of work, and arrange for inspection before proceeding with the remainder: masonry repointing and render replacement works.

MATERIAL/ PRODUCTION/ ACCESSORIES

210 ADVANCE REGISTRATION

- Material registered in advance by the Employer. Obtain from the supplier named in Preliminaries section A56.
  - Ordering: Supersede the Employer's registration and take over responsibility by an order to the supplier covering price, supply and delivery to suit the progress of the work.

215 MATERIAL SAMPLES

- Representative samples of designated materials: Submit before placing orders.
  - Designated materials: Sands for mortar repairs.
- Retention of samples: Unless instructed otherwise, retain samples on site for reference. Protect from damage and contamination.

220 RECORDING PROFILES

- Profiles: Take measurements from existing masonry units, as instructed, to allow accurate matching of replacements.
- Recording in situ: If there are no suitable joints to allow use of inserts, seek instructions.
- Drawings and templates. Prepare as necessary. Templates must be clearly and indelibly marked to identify use and location.

260 BRICKS

- Manufacturer: Contractor to propose - see also clause 265 hereunder.
  - Product reference: reclaimed to match existing.
- Size: to match existing.
- Special shapes: as required.

265 SALVAGED AND SECOND HAND BRICKS

- Source: Existing cracked bricks removed, cleaned, bonded with approved epoxy resin adhesive and reused. Where bricks are excessively defective, contractor to propose a suitable match, obtain samples and submit to employer abd CA for approval. .
- Condition:
  - Free from matter such as mortar, plaster, paint, bituminous materials and organic growths.
  - Sound, clean and reasonably free from cracks and chipped arrises.

DISMANTLING/ REBUILDING

310 DISMANTLING MASONRY FOR REUSE

- Masonry units to be reused: Remove carefully and in one piece.
  - Treatment: Clean off old mortar, organic growths and dirt, and leave units in a suitable condition for rebuilding.
  - Identification: Mark each unit clearly and indelibly on a concealed face, indicating its original position in the construction. Transcribe makings to drawings/ photographs

320 REBUILDING MASONRY WALL (EXTERNAL FACE) TO REAR ELEVATION AT PARAPET LEVEL, AND INTERNAL FACE OF PARAPET WALLS

- Replacement materials: Bricks as clause 260 & 265.
- Mortar: As section Z21.
  - Mix: The mortar mix and type must match the existing original mortar. Site investigation to take place once the scaffold has been erected, between the CA and mason to determine the correct specification for the mortar mix and lime content prior to works commencing.
  - Sand source/ type: to be confirmed.
- Fixings: as required. submit proposals to CA for approval.
- Rebuilding: To match previous face and joint lines, joint widths and bonding. Adequately bonded to retained work/ backing masonry, as appropriate.
- Joint surfaces: Dampen, as necessary, to control suction.
- Laying masonry units: On a full bed of mortar; perpend joints filled.
- Exposed faces: Remove mortar and grout splashes immediately.
- Joints: To match existing.
- Other requirements: fully clean down affected surfaces on completion. .

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REPLACEMENTS AND INSERTIONS

330 PREPARATION FOR REPLACEMENT MASONRY

- Defective material: Carefully remove to the extent agreed. Do not disturb, damage or mark adjacent retained masonry.
- Existing metal fixings, frame members, etc: Report when exposed.
- Redundant metal fixings: Remove.
- Recesses: Remove projections and loose material; leave joint surfaces in a suitable condition to receive replacement units. Protect from adverse weather if units are not to be placed immediately.

365A REPLACEMENT OF BRICKS AS CLAUSE 265

385 LAYING REPLACEMENT MASONRY UNITS

- Exposed faces of new material: Keep to agreed face lines.
- Faces, angles and features: Align accurately. Set out carefully to ensure satisfactory junctions with existing masonry and maintain existing joint widths.
- Joint surfaces: Dampen to control suction as necessary.
- Laying units: On a full bed of mortar, all joints filled.
- Exposed faces: Keep clear of mortar and grout.

390 GROUTING JOINTS

- Grout mix: As clause 320 above.
- Joints that cannot be fully filled with bedding mortar: Grout thoroughly around replacement masonry units.
- Grouting: Keep grout back from exposed face to allow for the depth of pointing, using an approved temporary sealing material. Prevent grout staining exposed face.

MORTAR REPAIRS

510 PREPARATION FOR MORTAR REPAIRS

- Repair area: Scribe area of masonry to be removed using straight horizontal and vertical lines parallel to joints. Where repair area abuts joints, maintain existing joint widths and do not bridge joints.
- Decayed masonry: Cut back carefully to a minimum depth of 20 mm to a sound background. Where the depth of removal exceeds 50 mm, seek instructions.
- Precautions: Do not weaken masonry by removing excessive material. Do not damage adjacent masonry.
- Top and vertical reveals of repair area: Undercut.

515 REINFORCEMENT FOR MORTAR REPAIRS

- Material: Austenitic stainless steel, phosphor bronze or copper alloy wire, 3 mm diameter.
- Armatures: Form to suit profiles of mortar repair and provide effective reinforcement.
- Cover to reinforcement: Not less than 18 mm.
- Installation: Drill holes into background to receive reinforcement, and bond firmly with a suitable epoxy resin.