

**Specification
Preliminaries, Materials and Workmanship
Cleaning and Repairs to the Stonework
and Glazing to:**

The Town Hall
Banbury
Oxfordshire

For Banbury Town Council

RI 16_190



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A10 PROJECT PARTICULARS

I10 THE PROJECT

- Name: Stonework Repairs to The Town Hall, Banbury, Oxfordshire
- Nature: The work comprises of the cleaning and repair of the exterior stonework and glazing alterations.
- Location: The Town Hall, Banbury, Oxfordshire
- Length of contract: To be agreed.

I20 EMPLOYER (CLIENT)

- Name: Banbury Town Council
- Address: Town Hall, Bridge Street, Banbury, Oxfordshire OX16 5QB
- Contact: Mark Hassall

I30 PRINCIPAL CONTRACTOR

- Name: To be confirmed
- Address: To be confirmed
- Telephone: To be confirmed

I40 PERSON EMPOWERED BY THE CONTRACT TO ACT ON BEHALF OF THE EMPLOYER

- Name: Acanthus Clews Architects
- Address: Acanthus House, 57 Hightown Road, Banbury, Oxon. OX16 9BE
- Telephone: 01295 702600.
- Contact: Andrew Salter – Project Architect

I50 PRINCIPAL DESIGNER

- Name: Acanthus Clews Architects
- Address: Acanthus House, 57 Hightown Road, Banbury, Oxon. OX16 9BE
- Telephone: 01295 702600.

A11 TENDER AND CONTRACT DOCUMENTS

I10 TENDER DOCUMENTS – Specification and Schedule of Works.

I20 CONTRACT DOCUMENTS – Will be the tender documents of Specification and Schedule of Works.

I60 PRECONSTRUCTION INFORMATION PACK

- Format: A separate Pre-Construction Information Pack is included with the tender documents.

A12 THE SITE/ EXISTING BUILDINGS

110 THE SITE

- Description: The Town Hall was built circa 1854 by E Bruton in the Gothic Style in limestone ashlar. The main elevation facing east has a central 3 stage entrance tower facing east, a clock and short spire above with crenellated parapets and tiled roof. The Porch doorway has a moulded 4 centred arched head and at first floor is a window with ogee head and surround with balcony. The main accommodation to the Town Hall is of mullioned and traceried windows with parapeted tiled roofs above.
Grade II listed.

140 EXISTING MAINS AND SERVICES

- A mains electricity supply is available on site. The Contractor is to provide a temporary meter and pay all charges incurred.
- A mains water is available on site. The Contractor is to provide a temporary meter and pay all charges incurred.

160 SOILS AND GROUND WATER

- No soil analysis has been undertaken.

180 HEALTH AND SAFETY FILE

- A previous Health & Safety File is available.

200 ACCESS TO THE SITE

- Description: The site access is from Bridge Street.
- Limitations: Pedestrian access surrounding the site, with constraints on road use. The Town Hall will be in use during the contract period. The adjacent road is off a busy roundabout. The Electrical Transformer enclosure is controlled by the relevant statutory authority and permissions will be required to enter and work within and over the substation.

210 PARKING

- Restrictions on parking of the Contractor's and employees' vehicles: There is no on site parking. Limited parking is available in Market Square and other public car parks nearby. Loading and unloading is available subject to restrictions.

220 USE OF THE SITE

- General: Do not use the site for any purpose other than carrying out the Works.
- Limitations: Extreme care to avoid damage to the existing building and external works. Keep within the site compound. The site will remain in use for civic purposes, all workers are expected to behave appropriately at all times. The use of radios is prohibited on site.

230 SURROUNDING LAND/ BUILDING USES

- General: Adjacent or nearby uses or activities are as follows:
 - Commercial buildings, offices and retail premises, with pedestrian and vehicular thoroughfares.

240 HEALTH AND SAFETY HAZARDS

- General: The work is in the town centre, within a busy pedestrian precinct with parked and passing vehicular traffic close by. Part of the works are within and over an electrical substation, which contains high voltages and is a potentially dangerous environment.
- There is a risk of 'sharps' within the walled enclosures around the building.
- The work includes high level working at roof level and the parapets are low. Scaffolding is required and no reliance should be made for support on the existing building fabric.
- Site staff: Draw to the attention of all personnel working on the site the nature of all potential risks and take appropriate precautionary measures.
- Information: The accuracy and sufficiency of this information is not guaranteed by the Employer or the Employer's representative.
- Refer to Pre-Tender Health and Safety Report

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: through the Architect - Clause A10/140.

A13 DESCRIPTION OF THE WORKS

120 THE WORKS

- Description:
The work comprises of the cleaning and repair of the exterior stonework and glazing alterations.

A20 JCT MINOR WORKS BUILDING CONTRACT

370 JCT MINOR WORKS BUILDING CONTRACT

- The Contract: JCT Minor Works Building Contract, 2016 Edition.
- Allow for the obligations, liabilities and services described.

THE RECITALS

First

THE WORKS AND THE CONTRACT ADMINISTRATOR

- The work comprises of the cleaning and repair of the exterior stonework and glazing alterations.

- Architect/ Contract Administrator: See clause A10/140.

Second

CONTRACT DOCUMENTS

- Contract documents: Specification and Schedule of Works

Third

PRICED DOCUMENTS

- Documents to be priced by the Contractor: Specification and Schedule of Works.

THE ARTICLES

Article 3: Architect/ Contract Administrator

- Architect/ Contract Administrator: See clause A10/140.

4 and 5

Principal Designer/ Principal Contractor

Principal Designer: See clause A10/150.

Principal Contractor: See clause A10/130.

CONTRACT PARTICULARS

Fourth Recital and Schedule 2

BASE DATE

- Base date: two weeks before the tender due date or any revised date as notified during the tender period.

Fourth Recital and clause 4.2

CONSTRUCTION INDUSTRY SCHEME (CIS)

- Employer at the Base Date of two weeks before the tender due date or any revised date as notified during the tender period, is not a 'contractor' for the purposes of the CIS.

Fifth Recital

CDM REGULATIONS

- The project is notifiable.

Sixth Recital

FRAMEWORK AGREEMENT

- Not applicable

Seventh Recital and Schedule 3

SUPPLEMENTAL PROVISIONS

Collaborative Working Paragraph 1 - Applies

Health and Safety Paragraph 2 - Applies

Cost savings and Paragraph 3 value improvements - Applies

Sustainable development & Paragraph 4 environmental considerations - Applies

Performance Indicators Paragraph 5 and monitoring - Applies

Notification and negotiation of disputes Paragraph 6 - Applies

Employer's nominee - Mark Smith of Acanthus Clews Architects

Contractor's nominee - To be notified

Or such replacement as each party may notify to the other from time to time

Article 7 and Schedule 1

ARBITRATION

- Article 7 and Schedule 1 shall apply.

Clause 1.1

CDM PLANNING PERIOD

- Shall mean the period of three weeks ending on the date of Commencement of the Works.

Clause 2.2

COMMENCEMENT AND COMPLETION

- Date for Commencement of the Works: TBA
- Date for Completion: TBA

Clause 2.8

LIQUIDATED DAMAGES

- At the rate of: £250 per week.

Clause 2.10

RECTIFICATION PERIOD

- Period: 12 months

Clause 4.3

INTERIM PAYMENTS

- Interim Valuation Dates:
 - The first Interim Valuation Date is: 4 weeks from commencement on site.
 - Thereafter at intervals of: 4 weeks.
- Payments due prior to practical completion:
 - Percentage of total value of the work etc.: 95%.
- Payments becoming due on or after practical completion:
 - Percentage of the total amount to be paid: 97.5%

Clause 4.3 and 4.8

FLUCTUATIONS PROVISION

- Does not apply.

Clause 4.8.1

SUPPLY OF DOCUMENTATION FOR COMPUTATION OF AMOUNT TO BE FINALLY CERTIFIED

- Period: 1 month from the date of practical completion

Clause 5.3

CONTRACTOR'S PUBLIC LIABILITY INSURANCE – INJURY TO PERSONS OR PROPERTY

- The required level of cover for any one occurrence or series of occurrences arising out of one event:
 - Not less than: £10,000,000

Clauses 5.4A, 5.4B and 5.4C

INSURANCE OF THE WORKS ETC – ALTERNATIVE PROVISIONS

- Clause 5.4B applies.
- Where clause 5.4A or 5.4B applies:
 - Percentage to cover professional fees: 15%.

- Where clause 5.4C applies:
 - Insurance arrangements – details of required policy or policies: _____ .

Clauses 5.4A.1 and 5.4B.1.2

PERCENTAGE TO COVER PROFESSIONAL FEES

- Addition: 15 per cent.

Clause 7.2

ADJUDICATION

- The Adjudicator is: as nominated by The Royal Institute of British Architects.
- Nominating body: The Royal Institute of British Architects.

Schedule 1 paragraph 2.1

ARBITRATION

- Appointor of Arbitrator (and of any replacement): President or a Vice president of the The Royal Institute of British Architects.

THE CONDITIONS

SECTION 1: DEFINITIONS AND INTERPRETATION

I.4 RECKONING PERIODS OF DAYS

- Amendments: None

I.7 APPLICABLE LAW

- Amendments: None

SECTION 2: CARRYING OUT THE WORKS

SECTION 3: CONTROL OF THE WORKS

SECTION 4: PAYMENT

SECTION 5: INJURY, DAMAGE AND INSURANCE

SECTION 6: TERMINATION

SECTION 7: SETTLEMENT OF DISPUTES

EXECUTION

- The Contract: Will be executed under hand.

CONTRACT GUARANTEE BOND

- Contract Guarantee Bond: N/A

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 the principles of the NBS Guide to Tendering for Construction Projects.

- Arithmetical errors: Alternative 2 The Tenderer will be given the opportunity of confirming their offer or amending it to correct genuine errors.
- Amendments: Tenderers. All to be CITB registered. Tenderers must provide evidence at tender that they comply with this requirement.

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.
 - period of acceptance of tender – 90 days

180 CDM PLANNING PERIOD

- Minimum: 3 weeks ending on the date of possession .

190 PERIOD OF VALIDITY

- Period: After submission or lodgement, keep tender open for consideration (unless previously withdrawn) for not less than 90 days
- 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

- Charges: If the Contractor requires interim payments to include fixed and time related charges for specific items in the Preliminaries those charges must be clearly shown against the items.

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: within one week of request.

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.

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.

A31 PROVISION, CONTENT AND USE OF DOCUMENTS

DEFINITIONS AND INTERPRETATIONS

I10 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.

I20 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/I40 unless specified otherwise.
- Response: Do not proceed until response has been received.

I30 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.

I35 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.

I60 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.
- Renew: Supply and fix new products and items 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.
- Indent(s): refers to local erosion of a stonework detail to, for example, a string course, section of tracery or mullion leading edge or moulding.
- Record: Record and submit record to architect in agreed format, by photographic means with a digital camera at 6 megapixel definition the works to be removed (all views, plans and elevations of the object, with scale reference using measuring tape or rod) and also to measure and make full scale drawing templates of details to be replaced and replicated or to inform the new profile which shall match the original existing and to the architects approval. Conjectural refix shall not be accepted without prior approval from the Architect.

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 manufacture's technical literature current on the date of the invitation to tender.

200 SUBSTITUTION OF PRODUCTS

- No substitutions accepted.

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.

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

- Copies: Two of each contract drawing and contract document will be issued free of charge (not counting any certified copies).
- Additional copies: Issued on request and charged to the Contractor.

440 DIMENSIONS

- Scaled dimensions: Do not rely on.

460 THE SPECIFICATION

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

470 DIVERGENCE FROM THE STATUTORY REQUIREMENTS

- Divergence: Between the drawings or specification and the requirements of the Building Regulations, other Statutes, statutory undertakers and other regulatory authorities.
- Action: Inform immediately.

DOCUMENTS PROVIDED BY CONTRACTOR/ SUBCONTRACTORS/ SUPPLIERS

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 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.

A32 MANAGEMENT OF THE WORKS

GENERALLY

110 SITE FORMAN/MANAGER

The site foreman must be skilled in one of the main trades for the work proposed. He/she shall be fully conversant in the English language, both spoken and written, well trained and experienced in the supervision of the

type of work proposed and their CV should be included with the tender for approval. Once approved, the person shall be retained for the entire course of the work. If circumstances prevent such continuance, the circumstances shall be brought to the attention of the architect, together with suitable alternative arrangements for approval.

120 INSURANCE

- Documentary evidence: Submit details before starting work on site 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.

150 OWNERSHIP

- Alteration/ clearance work: Materials arising become the property of the Contractor except where otherwise stated. Remove from site as work proceeds.

PROGRAMME/ PROGRESS

210 PROGRAMME

- Master programme: Immediately when requested at time of tender submit in an approved form a master programme for the Works, which must include details of:
 - Planning and mobilisation by the Contractor
 - Subcontractor's work.
 - 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.
 - Work by others concurrent with the Contract.
- Submit within one week of request.

220 CASHFLOW FORECAST

- Immediately when requested at time of tender submit in an approved form a cashflow forecast.

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.

255 NOTIFICATION OF COMPENSATION EVENT

- **Content:** Notwithstanding the Contractor's obligations under the Contract written notice must also be given of all other causes, which apply concurrently.

260 SITE MEETINGS

- **General:** Site meetings will be held to review progress and other matters arising from administration of the Contract.
- **Frequency:** 4 weekly.
- **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):** Architect.

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):** 2 weeks.

310 EXTENSIONS OF TIME

- **Notice:** When a notice of the cause of any delay or likely delay in the progress of the Works is given under the contract, written notice must also be given of all other causes which apply concurrently.
- **Details:** As soon as possible submit:
 - Relevant particulars of the expected effects, if appropriate, related to the concurrent causes.
 - An estimate of the extent, if any, of the expected delay in the completion of the Works beyond the date for completion.
 - All other relevant information required.

CONTROL OF COST

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.

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 authorized.
 - 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: no later than the week after the week in which the works were carried out.

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.

480 PROVISIONAL QUANTITIES

Provisional quantities are to be priced for tender purposes.

490 TENDER PRICE

The tender price and priced tender document will be used pro-rata for the cost of variations.

500 EXTENT OF WORKS

The extent of the works and thus the quantities, will be established once temporary access is in place and any opening up required has been carried out.

- Orders for materials should be placed only once the extent of the works has been agreed with the architect.

A33 QUALITY STANDARDS/ CONTROL

STANDARDS OF PRODUCTS AND EXECUTIONS

I 10 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 from this Church will be considered, recycled products from other sources will not be considered except in exceptional circumstances and with prior reasoned justification).
- Supply of each product: From the same source or manufacturer.
- Whole quantity of each product required to complete the Works: Consistent in 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: Without defects, 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: A mains water supply is available on site.
- Limitations: The Contractor must ensure that no unauthorised use can occur.

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.

SUPERVISION/ INSPECTION/ DEFECTIVE WORK

525 ACCESS

- Extent: Provide at all reasonable times access to the Works and to other places of the Contractor or subcontractors where work is being prepared for the Contract.
- Designate: Architect, Structural Engineer.

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: 3 working 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.

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.

610 PROPOSALS FOR RECTIFICATION OF DEFECTIVE PRODUCTS/ EXECUTIONS

- Proposals: Immediately any execution 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.

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 itemised schedule, retaining duplicate schedule signed by Employer as a receipt.

730 MAKING GOOD DEFECTS

- Remedial work: Arrange access with Architect.
- 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

I10 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.

I20 EXECUTION HAZARDS

- Common hazards: Not listed. Control by good management and site practice.
- Significant hazards: The design of the project includes the following:
 - Hazard: Working within and above an electrical sub station.
 - Precautions assumed: Personal supervision by Western Power Distribution, Blackpole Road, Worcester WR4 9TB. Contact: Simon Jupe, 07989 015045. Boarding out over substation to prevent falling objects into sub station area.
Appropriate PPE.
Provide RAMS to ensure safety and coordinate and comply with all Western Power Distribution safety requirements.

I30 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: Workplace Exposure Limits.
- Common hazards: Not listed. Control by good management and site practice.
- Significant hazards: Specified construction materials include the following:
 - Hazard: Handling of lead
 - Material: Lead
 - Hazard: Handling of lime
 - Material: Lime
 - Hazard: Handling of timber treatment
 - Material: Biocide
 - Material: Glass of thin section
 - Hazard: Handling Glass of thin section

I40 CONSTRUCTION PHASE HEALTH AND SAFETY PLAN

- Submission: Present to the Employer (Client) no later than 14 days before start of work 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 CDM Regulation 15(4).
- Content: Develop the plan from and draw on the Outline Construction Phase Health and Safety Plan, clause A30/570, and the Pre-Construction Information Pack.

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.
- All visitors to the site must sign in at the Contractors office on site and the record retained for inspection.

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.

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.

PROTECT AGAINST THE FOLLOWING

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.

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: Only where specified or approved, and then only suitable products listed on www.pesticides.gov.uk.
- Restrictions: Work near water, drainage ditches or land drains must comply with the 'Guidelines for the use of herbicides on weeds in or near watercourses and lakes'.
- Containers: Comply with manufacturer's disposal recommendations. Remove from site immediately empty or no longer required.

- Competence: Operatives must hold a BASIS Certificate of Competence, or work under supervision of a Certificate holder.
- 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.
 - Works are not likely to affect the archeological importance of the site and an archeological watching brief has not been requested for the works.
- 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'). Hot Works Permit Procedures apply.
- 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.

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 operation's to service authority's/ statutory undertakers recommendations.

515 PROTECTION OF BATS

- Confirmation - Bats are not evident on site.
- Requirements – It is an offence to kill, injure or disturb and to destroy any place used for rest or shelter by a bat. Contractor's to comply with all current legislation regarding protection of bats.

520 ROADS AND FOOTPATHS

- Duty: Maintain roads, drives 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 refix 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.

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: Protection of all headstones and monuments in working area.

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 the work.

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.

A35 SPECIFIC LIMITATIONS ON METHOD/ SEQUENCE/ TIMING

I30 METHOD/ SEQUENCE OF WORK

- Specific Limitations: Include the following in the programme: Allow for the removal of equipment prior to Wedding and Civic Events.

I70 WORKING HOURS

- Specific limitations: within daylight hours.

A36 FACILITIES/ TEMPORARY WORKS/ SERVICES

GENERALLY

I10 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

230 TEMPORARY ACCOMMODATION

- Proposals for temporary accommodation and storage for the Works: Submit two weeks prior to the Commencement Date.
- Contractor must ensure that adequate welfare facilities are provided throughout the works, which include hot water for washing, facilities for providing hot drinks, drying room and messing facilities. Please note that the contractor may by arrangement with Employer, use an area of the basement of the Town Hall, if considered suitable by the Contractor and which has a WC, washbasin and an area for Contractor supplied temporary seating and table.
- Details to be included: Type of accommodation and storage, confirmation of siting and the programme for site installation and removal.

TEMPORARY WORKS

310 ROADS AND PARKING

- Permanent roads, hard standings and footpaths on the site: The following may be used, subject to clause A34/520:
- Restrictions on use: vehicles of suitable weight that will not cause damage to the carriageways.
- Protective or remedial measures: protect and make good any damage arising from use.

312 TEMPORARY ACCESS

- Provide safe access and support for the works in progress and to enable the full use of the building by the occupants. Maintain all access and egress points to the building and ensure Fire Escapes are maintained. All methods shall be formed without fixings into the building. Fully protect the works and building from adverse weather during reglazing.
- Provide safe access throughout the works for users of the building.
- Avoid all electrical services and ensure adequate clearance of such wiring and that personnel are guarded from any such risks of injury

- Allow for maintenance of the temporary access throughout the contract period, pay all charges and remove on completion.
- Satisfy all current British Standard Codes of Practice and Statutory Regulations in the provision of temporary works
- Allow for the removal and re-fixing and testing of services where affected by the works.
- Remove only after satisfactory inspection by the Architect.
- Refer also to A34-150 of preliminaries.

340 NAME BOARDS/ ADVERTISEMENTS

- Name boards: May be used, boards will be supplied by Architects, Contractor to display signs in location agreed by Architect.
- Advertisements: Not permitted.

SERVICES AND FACILITIES

410 LIGHTING

- Finishing work and inspection: Provide temporary lighting, the intensity and direction of which closely resembles that delivered by the permanent installation.

440 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.

TEMPORARY ACCESS & PROTECTION

600 Refer also to Preliminaries item A36/312 above. Provide temporary safe access and support for the works in progress and to enable the full use of the building by the occupants. Maintain all access and egress points to the building and ensure Fire Escapes are maintained.

610 The safe use of suitable mobile access platforms is preferred instead of the erection of scaffolding, in order to enable programme flexibility and the maximum use of the area around the Town Hall in the centre of Banbury and the short duration on site of the works intended.

620 Prevent damage to the building and equipment including the electrical substation equipment and maintain the building wind and weathertight.

630 Allow for the maintenance and secure storage of the mobile access platforms at the end of each working day, throughout the contract period and remove on completion.

640 Satisfy all current British Standard Codes of Practice and Statutory Regulations in the provision and use of mobile access platforms and

temporary works. Provide temporary fencing, temporary protection platform boarding (above the electrical substation) and debris netting to protect persons and property on or adjacent to the site. Provide a Heras fenced enclosure 2m high with lockable access door around the work area of the mobile access platform to protect the public and relocate as required during the works.

- 650 Allow for the removal and re-fixing and testing of services where affected by the temporary works.

As well as items 1.1.1 to 1.1.5 above, as an alternative option:

- 651 Provide scaffolding as necessary, which shall be formed without fixings into the building. Ends of scaffolding poles adjacent to the stonework shall be capped and padded with foam. Avoid resting scaffolding on any other masonry and if this is unavoidable ensure adequate timber spreaders and protection. Fully protect the works from adverse weather.
- 652 Provide scaffolding design drawings for the Architect's and Client's reference and comment. Do not use the existing roof structure to support the scaffolding or associated loadings.
- 653 Provide 3.5m high corrugated metal sheeting around the perimeter of the scaffolding with lockable access door and Scaffold Alarm for the duration of the scaffold hire period.
- 654 Protect the building and works against inclement weather, during the progress of the works and maintain it wind and weathertight.
- 655 Allow for the maintenance of the scaffolding throughout the contract period, and remove on completion.
- 656 Satisfy all current British Standard Codes of Practice and Statutory Regulations in the provision of scaffolding and temporary works. Provide debris netting or Monoflex or similar sheeting to the sides of the scaffolding to protect persons and property on or adjacent to the site.
- 657 Allow for the removal and re-fixing and testing of services where affected by the scaffolding and temporary works.
- 658 State the contract period required for the scaffolding option.

SITE SET UP & ACCOMMODATION

- 660 Provide Heras fenced enclosure 2m high with lockable access door around the site compound.
- 670 Refer to A36/230. Allow for all site accommodation, storage and welfare facilities as necessary.

PROTECTED SPECIES

- 680 All people working on the site shall be made aware of the potential for the presence of bats, the protection afforded them and the methods of working required to avoid harm to bats.
- 690 Nesting birds are protected by law under The Wildlife and Countryside Act 1981, a check for nesting birds shall be undertaken prior to works commencing. If an active nest is found, work must cease and an appropriate sized buffer established around the nest. The buffer must remain intact until it has been confirmed that the young have fledged and the nest is no longer in use.

ORDERING OF MATERIALS

- 700 Do not order any materials based on 'allowed' quantities until verified and confirmed on opening up or closer inspection, as being necessary in agreement with the Architect. 'Allow' refers to quantities to be priced for and included within the Tender/Contract sum but actual quantities shall be checked prior to ordering and costs adjusted accordingly as savings/additions to the Contract Sum.

A37 OPERATION/ MAINTENANCE OF THE FINISHED BUILDING

GENERALLY

- 120 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 2 copies Principal Designer.
 - Latest date for submission: 2 weeks before the date for completion stated in the contract.

A54 PROVISIONAL WORK/ ITEMS

590 CONTINGENCIES

- Provisional sum: Include: 10% of the Sub Total of the Works %
- Daywork
- Work executed on a daywork basis shall be charged strictly in accordance with the current Definition of Prime Cost of Daywork carried out under a building contract, issued by the RICS and NFBTE. To this shall be added incidental cost overheads and profit. The Contractor is to allow for providing the following provisional amounts of labour and materials to be used in daywork throughout the period of the Contract and of the Defects Liability Period. The rates inserted for each class of labour are to include for all supervision, overheads and profit and for all costs and charges in connection with Employer's Liability, Third Party and Fire Insurances, Working Rule Agreement, Holidays with Pay, Bonus Schemes, Guaranteed Time, Lodging Allowances and the like, National Insurance Acts and all other Acts of Parliament of a like nature or any Amendment thereto. The rates are therefore to be interpreted as the total cost of employing one man for one hour's work on site.

General Labour 20 hours @ £ _____

Stonemason 20 hours @ £ _____

The materials to be used in dayworks will be paid for at net cost plus a percentage for handling, profit and like charges to be inserted by the Contractor below:-

Add the Provisional Sum of £1,000.00 for materials to be used in dayworks, delivered to site.

Percentage rate % £ _____

Total Provisional Sum for
Contingencies transferred
to Summary £ _____

WORK SECTIONS

C40 CLEANING MASONRY/ CONCRETE

To be read with Preliminaries/ General conditions.

100 DOMESTIC SUBCONTRACTORS

- The Contractor shall appoint a specialist subcontractor from the Stonehealth Approved Register as a domestic subcontractor or equal and approved cleaning system using accredited fully trained operatives.
- Details of any proposed employees or subcontractors shall be submitted to the Architect, with details of relevant experience. Only workmen with the relevant skills and experience shall be permitted to work on this project

GENERAL/ PREPARATION

110 SCOPE OF WORK

- Use DOFF stone cleaning system or equal and approved method to clean stonework. Note: Use compatible products with the cleaning system to soften stubborn residue prior to using the cleaning system.

120 RELATED REPAIR AND REMEDIAL WORKS

- Work to be carried out before cleaning work: Removal of bird netting from east elevation of building and roof and reinstated on completion.

160 PROTECTION

- Surfaces not designated for cleaning: Prevent damage, including marking and staining.
- Openings: Prevent ingress of water, cleaning agents, and detritus.
 - Vents and grilles: Seek instructions before sealing up.
- Temporary mechanical fastenings:
 - In masonry: Locate in joints.
 - In other surfaces: Seek instructions.

175 CONTROL AND DISPOSAL OF WASH WATER AND DETRITUS

- Disposal: Safely. Obtain approvals from relevant Authority.
- Control of wash water: Collect and divert to prevent ingress and damage to building fabric and adjacent areas.
- Above and below ground drainage systems: Keep free from detritus and maintain normal operation.

190 CLEANING GENERALLY

- Operatives: Appropriately trained and experienced for each type of cleaning work.
- Evidence of training: At pre contract meeting.
- Control of cleaning: Confine cleaning processes and materials to designated areas. Prevent wind drift.
- Detritus: Remove regularly. Dispose of safely.
- Monitoring: Frequently check results of cleaning compared to approved trial samples. If results established by trials are not achieved, seek instructions.
- Modifications to cleaning methods and materials: Seek instructions.

215 RECORD OF CLEANING WORKS

- Written report: Record cleaning methods and procedures used for each type of surface and deposit.
- Content: Relevant attributes of cleaning methods used including:
 - Equipment and settings.
 - Dwell times.
 - Number of applications.
 - Ambient temperatures.
- Submission: At completion of cleaning works.

230 TRIAL SAMPLES

- Trial sample reference: 1 metre long, of area of north elevation wall to east end to be cleaned (the return section of east elevation wall previously cleaned as a test sample).
 - Surface: Stone.
 - Location/ Size: 1 metre wide, full height, approx. 2 metres high.
 - Type of soiling: Bitumen.
 - Cleaning methods: DOFF or equal and approved.
- Records: Maintain written records for each trial area, including cleaning methods and conditions, to enable replication of results elsewhere.

PRODUCTS/ EQUIPMENT

240 MANUFACTURER:

- Bowers Court, The Broadwell, Dursley, Gloucestershire GL11 4JE, England
Tel: (+44) 01453 540600 Fax: (+44) 01453 540609 Email:
info@stonehealth.com

**260 METHOD STATEMENT & RECOMMENDATION FOR USING THE
STONEHEALTH STEAM DOFF SYSTEM – MASONRY & BUILDING FABRIC –
SOILING & COATING REMOVAL**

The STONEHEALTH DOFF 'superheated water' system is generally appropriate for the removal of oil, grease, bitumen, algae (and other biological matter including mosses, lichens & fungi etc.

1. The areas to be worked will be examined by the Architect. The Architect will be assisted by the Contractor or other participants having an understanding of the principles and possibilities of the system. Considerations will include safety, substrate condition, control of water and proximity of other works.
2. It should be normal practice before commencement of the cleaning operation that one or more sample areas are evaluated. Due merit should be given to the following;
 - a) Areas should be representative of the substrate, soiling and detail of the main works
 - b) Test panels should be positioned discreetly
 - c) Location of the test areas must be recorded and protected from further alteration
 - d) The parameters by which the result is obtained must be recorded
 - e) An acceptable test area should be retained as a control panel for the main works.

- f) Measures adopted as a result of the tests must be attainable and controllable in the main works.
3. The cleaning of the building surface should be carried out by a capable operator who has received instruction from Stonehealth Ltd into the proper use of the DOFF or equal and approved steam cleaning system. Stonehealth Ltd or equivalent maintains a record of the induction of each operator.
 4. If the Test Supervisor (the Client's nominated representative) is not familiar with the DOFF system, they should seek such information from Stonehealth Ltd as to be able to correctly identify the origins of the principle components of the system (equipment serial numbers, nozzle type number).
 5. Consideration should be given to protecting windows, doors, delicate features or any other areas not to be treated. For example 'Duck-Tape' and polythene to reduce water ingress through openings. Isolation of vulnerable electrical apparatus, lighting etc.
 6. Gutters and down pipes leading to soakaways should be diverted in order that the removed solid matters do not impair the drainage system. The use of a geo-textile such as 'Terram' or 'Typar' may be found useful for the control of solid residues.
 7. It is advisable that work commences at the uppermost level and continues downward. This will (a) reduce the need for re-rinsing and (b) when removing a coating will reduce the exposure of surfaces to residues and water.
 8. In some instances it may be necessary to use supplementary techniques to expedite the process, eg wooden spatula or bristle brush.
 9. Adjustment of the water volume, pressure and temperature controls should be made whilst maintaining an appropriate distance of the nozzle from the work. A balance should be achieved in order to obtain an effective cleaning result without abrading the substrate. Consideration may also be given to differing nozzle specification i.e. aperture and spray angle.
 10. To maintain full temperature at the nozzle, consideration must be given keeping the high pressure hoses as short as possible and fitting insulation (pipe lagging) if necessary. This is normally appropriate for hose lengths greater than 30m, or under cold prevailing weather conditions.
 11. When progress is difficult it may be found beneficial to carry out cleaning in stages, allowing a dwell period between applications.
 12. Consideration must be given to all Health & Safety matters. These are;
 - a) Protective Clothing & Equipment
Normal will be: Rubber dipped cloth gloves, eye protection (visor), ear defenders (above 30 bar pressure), waterproof clothing (skin to be covered). Respiratory equipment will be advisable if toxic coatings are suspected or if bird / animal droppings are to be removed.
 - b) Electrical Safety
Appropriate electrical ancillaries and supply protection (see the Electrical Considerations sheet). Isolation and / or protection of electrical fittings.
 - c) Location of DOFF Equipment
Equipment should be placed in a well-ventilated area out of the reach of the lance or other water spray. The exhaust must not be

- covered or obscured.
 - d) Education of Personnel
Whilst personnel working in the vicinity need not be inducted into the working of the system they should be made aware of the potential hazards – heat, ventilation, the temperature of metal / rubber components etc. A nominated person adjacent, other than the Operator, should be aware of how to safely shut down the system in circumstances unforeseen.
 - g) Firefighting Equipment
Maintain access of an appropriate fire extinguisher to suit liquid fire in electrical environment.
13. Following the completion of any repair work it is recommended that a final rinse be given to remove any residue.

F20 NATURAL STONE WALLING

POINTING TO FLASHINGS

To be read with Preliminaries/ General conditions.

20 PROTECTION

- Protect new masonry and repointing with waterproof sheeting during rain.
- Protect new masonry and repointing with insulating hessian sheeting during frosty weather to prevent frost damage to the mortar.
- Protect new masonry and repointing with damp hessian sheeting during very dry weather to prevent rapid drying out.

40 REPOINTING

- In repointing, remove lichen and mosses locally to the joints to ensure an effective bond between new mortar and existing stones. The mortar is to generally consist of 2 parts hydraulic lime NHL 3.5 to 5 parts of aggregate in volume well graded throughout the range.

80 LIME

The lime shall be hydraulic lime St Astier NHL 3.5.

90 AGGREGATE

The aggregate shall be a mixture of sand to BS 1199 and BS 1200 and crushed stone. The aggregate shall be selected to enable the mortar mix to match the existing mortar in texture, grit size, mix and colour.

100 WATER

Water shall be clean fresh mains water.

Thorough and prolonged dampening down of stonework to be carried out before re-pointing, especially during drying weather conditions.

110 MORTAR

- No mortar in which the initial set has taken place shall be used in the works.
- All mortar for the works shall not be stronger than the stone bedded or pointed and be durable for the position and exposure intended.
- The sand is to be washed clean, after cleaning, colour to be checked to ensure best match is achieved with the existing mortar.
- Joints shall be carefully raked out to a depth of a minimum of 25mm and 2 times the width of the joint, whichever the greater, by hand tools and repointed with rigid pointing irons (not flexible spatulas) completing the finish to match the existing texture, weathering the new mortar work by brush stippling and spraying after the initial set has taken place, so that the new work is unobtrusive and allows maximum drying out from the wall. Care must be exercised not to expose more aggregate than natural weathering would expose. Care in curing lime mortar must be carried out, using light fine water spray and damp hessian in summer and hessian

to protect against frost, in winter, where it is absolutely unavoidable to work between October and April. Where any new lime repointing is cracking or sounds hollow to tapping, this shall be removed and repointed as above.

LAYING AND JOINTING

- 315 **ADVERSE WEATHER:**
- Do not use frozen materials and do not lay on frozen surfaces.
 - Do not lay blocks/dressings:
 - In hydraulic lime:sand mortars when the air temperature is at or below 5°C and falling or below 3°C and rising.
 - Maintain temperature of the work above freezing until mortar has fully set.
 - Protect newly erected masonry against rain and snow by covering when precipitation occurs and at all times when work is not proceeding.
 - Prevent newly erected masonry from drying out too rapidly in hot conditions and in drying winds.
 - Rake out and replace mortar damaged by frost and where instructed, rebuild damaged work.
- 340 **PUTLOG SCAFFOLDING** will not be permitted.

H71 LEAD SHEET COVERINGS/FLASHINGS

Miscellaneous Repairs

To be read with Preliminaries/General conditions.

98 MATERIALS AND WORKMANSHIP GENERALLY:

All materials and workmanship method of laying, lead wedges, length, turn in, vertical overlap with roof covering and clips to comply with BSI 178 and BSCP 6915 where appropriate. Comply with BSCP 6915 and good practice as described in the latest editions of 'The Lead Sheet Manual: A Guide to Good Building Practice', Volumes 1 to 2 inclusive, and updates, published by the Lead Sheet Association, London, 1990, together with English Heritage and Lead Sheet Association advisory note 'Lead Roofs on Historic Buildings', published April 1997 by English Heritage, unless agreed otherwise. **Copies of the above publications should be made available for reference on site by the contractor.**

99 Leadwork is to be executed by suitably qualified leadworkers, who must be craft trained and experienced in working on historic buildings and can show by examples of their own work an acceptable standard of workmanship and for whom individual references can be provided. The Architect retains the right to refuse a leadworker, who in the Architect's opinion, fails to meet the quality of workmanship required. The approved leadworkers shall not be replaced by others during the works, unless similar demonstrations of ability and experience with suitable references, can be provided and that the architect approves. The application of all new lead sheets is to be in accordance with BS EN 12588: 2006.

100 LEAD SHEET FLASHINGS

- Lead to be minimum Code 7 supplied from Norman and Underwood of Leicester or Anglian Lead Ltd of Norwich of equivalent and approved supplier. Ensure sand cast lead is of the highest quality and consistency of thickness, samples to be agreed with the Architect.
- Leadwork shall be well and neatly dressed without injury to the surface.

102 STANDARDS

- All work to be carried out in accordance with 'Rolled Lead Sheet The Complete Manual' 2015 Edition published by The Lead Sheet Association. Reference should also be made to the EH / LSA Technical Note 'Lead roofs on Historic Buildings'.

103 FIRE PRECAUTIONS

- Any hot work shall take place away from the building wherever possible. If hot work is required, permission must be obtained from the architect and a Hot Work Permit procedure used. All waste, birds' nests, etc. shall be removed from the vicinity before blowlamps or other naked flame equipment is used.
- Hot works shall only be carried out (when expressly permitted by the architect) and to be completed before noon.
- At least 2 suitable fire extinguishers shall be close at hand during hot work operations, and to hand at all other times.
- The contractor and all workmen shall familiarise themselves with fire safety procedures and where the nearest telephone is for emergency purposes.
- Insulating shields shall be used to protect combustible materials.

Thorough checks shall be made for smouldering fires after the craftsmen have finished each day and after any flame or heat producing equipment is used and the area should not be left unattended for at least one hour during which time thorough checks should be made for smouldering fires

104 CLIPS

- Lead clips generally to be 50mm wide where not specified to be continuous, length to suit detail. Lead clips to be cut from sheets of same code as sheets being secured. Lead clips to be nailed or screwed into the substrate below as close to the edge of the sheet being secured as possible.
- Copper clips to be 50mm wide, cut from 0.7mm thick sheet to BS2870 (22 gauge 1/4 hard temper), temper grade 1/4H, dipped in solder if exposed to view.
- Stainless steel clips to be cut from 0.38mm sheet to BS 1449: Part 2, grade 304, terne coated if exposed to view.
- Stainless steel for clips to be 'Steelex' dull finish, 50mm wide.
Clips to be 'Steelex' dull finish, 50mm wide
Lee Steel Strip Ltd
Tribute Works
Meadow Hall
Sheffield
or
Terne-coated stainless
Follansbee (UK) Ltd
123 Lonsdale Drive, Oakwood
Enfield, Middlesex
Tel No 020-8367 6463

TYPE(S) OF LEADWORK

430 COVER FLASHINGS TO ABUTMENTS

- Lead: Code 7 sand bed cast from Norman & Underwood
- Dimensions:
 - Upstand: minimum 150mm
 - Lengths: Not more than 1500mm.
 - End to end joints: Laps of not less than 100 mm.
 - Overlap to upstand: Not less than 50 mm.
 - Cover to roof: Not less than 75 mm.
- Fixing: Fold back flashing within chase and lead wedge at max. 450mm centres.

440 SOAKERS

- Lead soakers: Code 5 milled lead to BSI 178
 - Thickness: 2.24mm .
 - Length: Slate/ tile gauge + lap + 25 mm.
 - Upstand: Not less than 75 mm.
 - Underlap: Not less than 100 mm.
- Fixing: By roofer.

GENERAL REQUIREMENTS/PREPARATORY WORK

510 WORKMANSHIP GENERALLY:

- Cut, joint and dress lead neatly and accurately, to provide fully waterproof coverings/flashings, free from ripples, kinks, buckling and cracks.
 - Comply with BS 6915 and current good practice as described in the latest editions of 'The Lead Sheet Manual' and Updates published by the Lead Sheet Association, unless specified or agreed otherwise.
 - Do not use scribes or other sharp instruments to mark out lead.
 - Use solder only where specified.
 - Ensure that finished leadwork is fully supported, adequately fixed to resist wind uplift but also able to accommodate thermal movement without distortion or stress.
 - Ensure that finished leadwork is protected against staining, discolouration and damage by subsequent works.
- 512 LEAD SHEET: Colour marked for thickness and weight and of the type and code specified:
- Sand cast, from lead free from bitumen, solder, other impurities, inclusions, laminations, cracks, air, pinholes and blowholes; to code thicknesses but with a tolerance (by weight) of $\pm 10\%$.
- 516 IN SITU LEADWELDING is permitted, subject to completion of a 'hot work permit' form and compliance with its requirements.
- 570 EXISTING LEAD TO BE RE-USED will become the property of the contractor. The scrap value of such lead must be estimated by the contractor, itemised separately in the tender, and set against the tender sum.
- 610 SUITABILITY OF BASES:
- Bases to be dry and free of dust, debris, grease and other deleterious matter.
 - Laying of lead will be taken as acceptance by the lead contractor of the suitability of bases.

L10 WINDOWS/ ROOFLIGHTS/ SCREENS/ LOUVRES

05 TIMBER PROCUREMENT

- Timber (including timber for wood-based products): Obtained from well-managed forests and/ or plantations in accordance with:
 - The laws governing forest management in the producer country or countries.
 - International agreements such as the Convention on International Trade in Endangered Species of wild fauna and flora (CITES).
- Documentation: Provide either:
 - Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied.
 - Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood-based products.

56 SECONDARY GLAZING SYSTEM TO PROPOSED SECONDARY GLAZING TO DESIGNATED EXISTING OFFICE WINDOWS

- Timber: Hardwood, generally to BS EN 942.
 - Species: Table as NA2
 - Appearance class: Class J30.
 - Moisture content on delivery: 12–19%.
- Preservative treatment: not required.
- Finish as delivered: Painted as section M60.
- Glazing details: Site glazed.
 - Beading: Hardwood to detail.
- Fixing: Plugged and screwed to masonry at 300mm centres with brass screws.
 - Fastener spacing: When not predrilled or specified otherwise, position fasteners not more than 150 mm from ends of each jamb, adjacent to each hanging point of opening lights, and at maximum 300 mm centres.

65 PRIMING/ SEALING

- Wood surfaces inaccessible after installation: Prime or seal as specified before fixing components.

L40 GLAZING

TO TRACERIED ELEMENTS TO EXISTING WINDOWS

10 WORKMANSHIP GENERALLY

- Glazing:
 - All glass restoration works shall be undertaken by craftsmen experienced in the conservation of historic glass.
 - Integrity: Wind and watertight under all conditions. Make full allowance for deflections and other movements.

20 REMOVAL OF POLYCARBONATE SHEET

- Existing plastics and glazing compound etc: Remove carefully, avoiding damage to frame, to leave clean, smooth rebates free from obstructions and debris.
- Deterioration of frame/ surround: Submit report on defects revealed by removal of glazing.

30 GLASS:

- All replacement glass shall be 4mm clear float glass.
- Standards: Generally to BS 952 and to the relevant parts of:
 - BS EN 572 for basic soda lime silicate glass.
 - BS EN 1096 for coated glass.
 - BS EN 12150 for thermally toughened soda lime silicate glass.
 - BS EN ISO 12543 for laminated glass.
- Quality: Free from scratches, bubbles and other defects.
- Dimensional tolerances: Panes/ sheets to be accurately sized.
- Material compatibility: Glass/ plastics, surround materials, sealers primers and paints/ clear finishes to be compatible. Comply with glazing/ sealant manufacturers' recommendations.

40 CAMES:

- In order to help protect the replacement glass from cracking, a perimeter traditional lead came shall be placed around the glass and soldered together. The glass shall be sealed in the lead with leaded light cement.

50 TEMPLATES AND PRODUCTION

Inspect on site each designated window on which the glazing is to be reinstated and take templates and all details necessary to produce clear glass to the required shapes with lead surround. Produce clear glass to the required shapes with lead surround at the specialist glaziers studio to enable studio cutting and detailing including leading, to ensure that each piece is to the exact size and shape.

60 INSTALLATION SITE WORKS

Return to site and remove the polycarbonate and clean out the groove/rebate to facilitate the fitting of the new clear glass. Seal the lead into the stone with the use of lime mortar in the traditional manner, to allow some movement to assist in the prevention of pressure build on the lead and glass. Clean down to complete.

70 MORTAR

The mortar for rebedding glazed lights shall be 2 parts lime to 5 parts of aggregate in volume.

80 CLEANING

- To be carried out by specialist glass restorers.
- Do not use any detergents, bleaches, caustic sodas, ammonia and acids.
- No abrasive methods which scrape or scratch the exterior surface of the glass are to be used.
- Distilled or ionised water may be used together with a reagent eg Calgon.

90 PROTECTION

- The removal of the existing and reinstatement of the new glazing shall be undertaken in one continuous operation wherever possible. Where this is not possible the opening shall be weather proofed using temporary boarding up with twin wall acrylic sheeting.

100 DECORATION

- Refer to section M60 Painting/Clear Finishing.

110 PREPARATION

- Surrounds, rebates, grooves and beads: Clean and prepare before installing glazing.

TO PROPOSED SECONDARY GLAZING TO DESIGNATED EXISTING OFFICE WINDOWS

120 GLASS:

- Standards: Generally to BS 952 and to the relevant parts of:
 - BS EN 572 for basic soda lime silicate glass.
 - BS EN 1096 for coated glass.
 - BS EN 12150 for thermally toughened soda lime silicate glass.
 - BS EN ISO 12543 for laminated glass.
- Quality: Free from scratches, bubbles and other defects.
- Dimensional tolerances: Panes/ sheets to be accurately sized.
- Material compatibility: Glass/ plastics, surround materials, sealers primers and paints/ clear finishes to be compatible. Comply with glazing/ sealant manufacturers' recommendations.

130 INTERNAL TAPE GLAZING TO PROPOSED SECONDARY GLAZING TO DESIGNATED EXISTING OFFICE WINDOWS

- Pane material: 6.4mm laminated clear safety glass, Class IBI to BS EN 12600.
- Surround/ bead: Hardwood frame with hardwood beads.
- Preparation: priming and sealing of rebates and wood beads as section M60
- Bead fixing: Bead fixing: Brass cups and screws at 300mm centres
- Tape/ Section: self adhesive velvet.
- Installation: Glass and beads bedded with glazing tape and fixed securely. Tape trimmed flush on both sides.

M60 PAINTING/ CLEAR FINISHING

- 12 GLOSS PAINT TO PREVIOUSLY PAINTED METALWORK
- Manufacturer: Johnstone's Trade - a brand of PPG Industries.
 - Product reference: Johnstone's Semi Gloss Topcoat.
 - Surfaces: Rainwater goods.
 - Preparation: As clauses M60/30, M60/32, M60/39 and M60/45 and M60/100 power or hand tool clean to remove all corrosion.
Removing all loose and flaking paint, salts etc.
Degrease the surface with Johnstones Cleaner and Degreaser, wash down with clean water and allow to dry
 - Initial coat: 1st coat: Johnstone's Single Pack Primer wet 100um, dry 50um
 - Number of coats: 1
 - Undercoat: 2nd coat: Johnstone's Steel & Cladding Semi-Gloss Topcoat wet: 125um, dry: 53um.
 - Number of coats: 1
 - Finishing coats: Johnstone's Steel & Cladding Semi-Gloss Topcoat wet: 125um, dry: 53um
 - Number of coats: 1
- 30 PREPARATION GENERALLY
- Standard: In accordance with BS 6150.
 - Refer to any pre-existing CDM Health and Safety File and CDM Construction Phase Plan where applicable.
 - Risk assessment and method statement for hazardous materials: Prepare for operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
 - Preparation materials: Types recommended by their manufacturers and the coating manufacturer for the situation and surfaces being prepared.
 - Substrates: Sufficiently dry in depth to suit coating.
 - Efflorescence salts, dirt, grease and oil: Remove.
 - Surface irregularities: Provide smooth finish.
 - Organic growths and infected coatings:
 - Remove with assistance of biocidal solution.
 - Apply residual effect biocidal solution to inhibit regrowth.
 - Joints, cracks, holes and other depressions: Fill with stoppers/ fillers. Provide smooth finish.
 - Dust, particles and residues from preparation: Remove and dispose of safely.
 - Doors, opening windows and other moving parts:
 - Ease, if necessary, before coating.
 - Prime resulting bare areas.
- 32 PREVIOUSLY COATED SURFACES GENERALLY
- Preparation: In accordance with BS 6150, clause 11.5.
 - Contaminated or hazardous surfaces: Give notice of:
 - Coatings suspected of containing lead.
 - Substrates suspected of containing asbestos or other hazardous materials.
 - Significant rot, corrosion or other degradation of substrates.

- Risk assessment and method statement for hazardous materials: Prepare for operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
 - Removing coatings: Do not damage substrate and adjacent surfaces or adversely affect subsequent coatings.
 - Loose, flaking or otherwise defective areas: Carefully remove to a firm edge.
 - Alkali affected coatings: Completely remove.
 - Retained coatings:
 - Thoroughly clean.
 - Gloss coated surfaces: Provide key.
 - Partly removed coatings: Apply additional preparatory coats.
 - Completely stripped surfaces: Prepare as for uncoated surfaces.
- 39 IRON & STEEL PREPARATION
- Corrosion and loose scale: Take back to bare metal.
 - Residual rust: Treat with a proprietary removal solution.
 - Bare metal: Apply primer as soon as possible.
- 45 PREVIOUSLY PAINTED WINDOW FRAMES
- Paint encroaching beyond glass sight line: Remove.
 - Loose and defective putty: Remove.
 - Putty cavities and junctions between previously painted surfaces and glass: Clean thoroughly.
 - Finishing:
 - Patch prime, reputty, as necessary and allow to harden.
 - Seal and coat as soon as sufficiently hard.
- 61 COATING GENERALLY
- Application: In accordance with BS 6150, clause 9.
 - Conditions: Maintain suitable temperature, humidity and air quality.
 - Surfaces: Clean and dry at time of application.
 - Thinning and intermixing: Not permitted unless recommended by manufacturer.
 - Priming coats: Apply as soon as possible on same day as preparation is completed.
 - Finish:
 - Even, smooth and of uniform colour.
 - Free from brush marks, sags, runs and other defects.
 - Cut in neatly.
 - Doors, opening windows and other moving parts: Ease before coating and between coats.
- 66 CONCEALED METAL SURFACES
- General: Apply additional coatings to surfaces that will be concealed when component is fixed in place.
 - Components: Rainwater goods
 - Additional coatings: 1 coat Johnstone's Single Pack Primer and 1 coat Johnstone's Steel & Cladding Semi-Gloss Topcoat.

100 TO RAINWATER GOODS

Colour: Rainwater Goods - Top Coat Colour : Black

Prepare surface and prime accordingly. If overcoating an existing paint ensure the surface is clean and dry. Special precautions should be taken during surface preparation of pre-1960s paint surfaces over wood and metal as they may contain harmful lead.

Apply Johnstone's Single Pack Primer and Semi Gloss Topcoat in accordance with the project specific Johnstone's Technical Specification and BS 6150, 2006 Code of Practice for Painting Buildings.

Preparation and Priming:

Power or hand tool clean to remove all corrosion.
Removing all loose and flaking paint, salts etc.
Degrease the surface with Johnstones Cleaner and Degreaser, wash down with clean water and allow to dry

1st coat: Johnstone's Single Pack Primer wet 100um, dry 50um

Finishing Coats:

2nd coat: Johnstone's Steel & Cladding Semi-Gloss Topcoat
wet: 125um, dry: 53um
3rd coat: Johnstone's Steel & Cladding Semi-Gloss Topcoat
wet: 125um, dry: 53um

For further advice and free Johnstone's Trade datasheets, call 01924 354354 or visit www.johnstonestrade.com

120 GENERALLY

The preparation of surfaces is deemed to be included with the descriptions for painting. In the absence of specific requirements surfaces shall be prepared in the manner recommended by the manufacturer of the paint being used. With reference to window ferramenta, these shall be scraped and wire brushed free of rust prior to priming with specified primer.

Z21 MORTARS

To be read with Preliminaries/ General conditions.

LIME : SAND MORTARS

310 LIME : SAND MORTAR MIXES

- Specification: Proportions and additional requirements for mortar materials are specified elsewhere.

320 SAND FOR LIME:SAND MASONRY MORTARS

- Type: Sharp, well graded.
 - Quality, sampling and testing: To BS EN 13139.
 - Grading/ Source: As specified elsewhere in relevant mortar mix items.

330 READY PREPARED LIME PUTTY

- Type: Slaked directly from CL 90 quicklime to BS EN 459-1, using an excess of water.
 - Maturation: In pits/ containers that allow excess water to drain away.
 - Density of matured lime putty: 1.3–1.4 kg/litre.
- Maturation period before use (minimum): 90 days

360 MAKING LIME:SAND MORTARS GENERALLY

- Batching: By volume. Use clean and accurate gauge boxes or buckets.
- Mixing: Mix materials thoroughly to uniform consistency, free from lumps.
- Contamination: Prevent intermixing with other materials, including cement.

370 SITE PREPARED NONHYDRAULIC LIME:SAND MORTARS

- Mixing: Mix materials thoroughly by compressing, beating and chopping. Do not add water.
 - Equipment: Roller pan mixer or submit proposals.
- Maturation period before use (maximum): 7days.

390 KNOCKING UP NONHYDRAULIC LIME:SAND MORTARS

- Knocking up before and during use: Achieve and maintain a workable consistency by compressing, beating and chopping. Do not add water.
 - Equipment: Roller pan mixer or submit proposals.

400 MAKING HYDRAULIC LIME:SAND MORTARS

- Mixing hydrated hydraulic lime:sand: Follow the lime manufacturer's recommendations for each stage of the mix.
 - Water quantity: Only sufficient to produce a workable mix.
- Working time: Within limits recommended by the hydraulic lime manufacturer.

RI 16_190
Cleaning and Repairs to the Stonework and Glazing
The Town Hall, Banbury, Oxon

APPENDICES

Stonehealth Cleaning Trials Report
DOFF Method Statement



STONEHEALTH

**Report on Stonehealth Ltd's
Visit to the Banbury Town Hall
Banbury**

**Trial/Demonstration on
3/4/2017**

Introduction

At the request of Acanthus Clews Architects Simon Ellis & Jody Ingram of Stonehealth Limited, the manufacturer/marketing organisation of Jos/Torc Vortex and Doff systems attended the Robert Burns Memorial, Ayr.

Purpose of the Visit

To trial/demonstrate the effectiveness of the Doff & Jos/Torc systems on the removal of paint & soiling & to clean the historic brick, stonework & metalwork.

Preliminaries

In order to be able to advise which systems would be most suitable for the requirements, Simon Ellis & Jody Ingram inspected the site.

The Doff was developed to remove many layers of thermo-plastic, oil based and masonry paints; but also heavy deposits of grease, oil and biological growth as well as chewing gum, efficiently and without damage.

This can be used in conjunction with the Doff Recovery System (DRS) for internal use.

It is complimentary to the Jos/Torc Vortex system and since its introduction has been specified for the safe removal of Carbon deposits and Lime washes for many prestigious projects such as the paint removal of the Swedish Embassy in Westminster, London. Also Kenwood House in Hampstead Heath, London, the palace of Westminster and Chatsworth House to name a few.

Demonstration

Initial tests were carried out in various areas to test the effectiveness of both the Doff & Jos/Torc systems & to set the respective temperature & pressures.

The test area was on the right hand walled area above the old toilets. The Doff system was used in all areas first with an initial pressure of 40 bar which was increased in 5 bar increments until a satisfactory cleaning rate was achieved without causing damage to the substrate. The pressure was increased to 50 bar in most of the areas, making sure not to cause damage. The temperature was set to 150°C to in order to remove all the soiling.

Before:

After:



Summary

On completion of the trial it was concluded that the entire building benefit from the removal of algae and moss using the Doff system to allow the substrate to breath. A sympathetic approach should be taken to ensure the patina of the building remains. Some areas of repair will become evident and some previous concrete repairs will require replacement. Cleaning rate was fairly good at around 8m² per hour, bearing in mind this area was heavily soiled this rate may be increased. The Doff system uses approximately 5

litres of water per minute & will not saturate the surface. All data sheets and method statements are attached.

Simon Ellis - Engineer
For and on behalf of Stonehealth Ltd.

5th May 2017

Method Statement & Recommendation for Using the Stonehealth Steam DOFF system – Masonry & Building Fabric – Soiling & Coating Removal

The STONEHEALTH DOFF 'superheated water' system is generally appropriate for the removal of thermoplastic paints (oil based, acrylic, dispersion etc.) and oil, grease, bitumen, algal (and other biological matter including mosses, lichens & fungi etc.), chewing gum etc.

1. The objectives and scope of the project will be taken into account. This will determine the boundaries for the cleaning / removal process e.g. timescale, access, cost limitation & aesthetic requirements.
2. The areas to be worked will be examined by the Supervising Officer. The said officer will be assisted by the contractor or other participants having an understanding of the principle and possibilities of the system. Considerations will include safety, substrate condition, control of water and proximity of other works.
3. It should be normal practice before commencement of the cleaning operation that one or more sample areas are evaluated. Due merit should be given to the following;
 - a) Areas should be representative of the substrate, soiling and detail of the main works
 - b) Test panels should be positioned discreetly
 - c) Location of the test areas must be recorded and protected from further alteration
 - d) The parameters by which the result is obtained must be recorded
 - e) An acceptable test area should be retained as a control panel for the main works
 - f) Measures adopted as a result of the tests must be attainable and controllable in the main works
4. The cleaning of the building surface should be carried out by a capable operator who has received instruction from Stonehealth Ltd into the proper use of the DOFF steam cleaning system. Stonehealth Ltd maintains a record of the induction of each operator.
5. If the Test Supervisor (the Client's nominated representative) is not familiar with the DOFF system, they should seek such information from Stonehealth Ltd as to be able to correctly identify the origins of the principle components of the system (equipment serial numbers, nozzle type number).
6. Consideration should be given to protecting windows, doors, delicate features or any other areas not to be treated. For example 'Tank-Tape' and polythene to reduce water ingress through openings. Isolation of vulnerable electrical apparatus, lighting etc.
7. Gutters and down pipes leading to soakaways should be diverted in order that the removed solid matters do not impair the drainage system. The use of a geo-textile such as 'Terram' or 'Typar' may be found useful for the control of paint or other solid residues.
8. It is advisable that work commences at the uppermost level and continues downward. This will (a) reduce the need for re-rinsing and (b) when removing a coating will reduce the exposure of surfaces to residues and water

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9. In some instances it may be necessary to use supplementary techniques to expedite the process.
 - a) Chemical paint stripper / softener. This may be beneficial when used in conjunction with the DOFF to increase speed and reduce impact of water pressure. However, precautions applicable to use of such chemicals must be taken into account e.g. Do not use adjacent to watercourses.
 - b) Certain paints (e.g. lime based) and carbon deposits may require sympathetic mechanical assistance, such as the Stonehealth TORC system.
 - c) Where the paint / coating layers are thick and do not immediately peel away it may be advantageous to have an assistant with spatula or other implement to pull away such layers. Suitable PPE must be worn when such a task is undertaken.
10. Adjustment of the water volume, pressure and temperature controls should be made whilst maintaining an appropriate distance of the nozzle from the work. A balance should be achieved in order to obtain an effective cleaning result without abrading the substrate. Consideration may also be given to differing nozzle specification i.e. aperture and spray angle.
11. To maintain full temperature at the nozzle, consideration must be given keeping the high-pressure hoses as short as possible and fitting insulation (pipe lagging) if necessary. This is normally appropriate for hose lengths greater than 30m, or under cold prevailing weather conditions.
12. When progress is difficult it may be found beneficial to carry out cleaning in stages, allowing a dwell period between applications.
13. Where there is a high risk of water damage to adjacent fabric e.g. during internal usage, consideration should be given to vacuuming or channelling away unwanted matter and vapour. 'Steam' will activate smoke detectors if placed in local proximity.
14. Consideration must be given to all Health & Safety matters. These are;

a) Protective Clothing & Equipment

Normal will be: Rubber dipped cloth gloves, eye protection (visor), ear defenders (above 30 bar pressure), waterproof clothing (skin to be covered). Respiratory equipment will be advisable if toxic coatings are suspected or if bird / animal droppings are to be removed.

b) Electrical Safety

Appropriate electrical ancillaries and supply protection (see the Electrical Considerations sheet). Isolation and / or protection of electrical fittings.

c) Location of DOFF Equipment

Equipment should be placed in a well-ventilated area out of the reach of the lance or other water spray. The exhaust must not be covered or obscured. A purpose made ventilation duct can be used if required in an enclosed area. It will reassure the Operator if the unit can be observed, if only from a distance, by themselves or an assistant.

d) Storage & Use of Fuel

Stonehealth Ltd now only advise the use of kerosene (28 sec heating oil) as a fuel for the Hot Box. The Hot Box will function on red or white diesel but will not burn as cleanly both for the machine and the environment. With new equipment, repair work attributable to the use of diesel fuel is no longer covered under the warranty. **Kerosene is not** suitable for use in engines eg diesel compressors etc. This will be stored in suitable marked containers or drums away from heat or direct sunlight. Storage will not be adjacent to the DOFF heater unit (at least 5 metres distant). Precautions should be made to avoid accidental or malicious spillage. Make use of containment / bunding as required by law. Avoid contact with skin, soil and vegetation. Transfer of fuel to the DOFF should be carried out using a 20 litre Jerry can with 'clip on' spout. If storage on site is difficult transfer to the site sufficient only to maintain continuity of working.

e) Storage & Use of Acid Descaler

In hard water areas descaling of the boiler unit will be required in accordance with the Operator Instruction. The descaler will normally be inhibited hydrochloric acid (see product Health & Safety Data Sheet). This should be stored at ambient temperature with controlled access. Preliminary transfer (in a controlled location) into 1 or 2½ litre marked containers will reduce later handling. Protective waterproof clothing, eye protection and rubber gloves / gauntlets are required. Supply of clean water should be readily accessible during usage. Do not dispose of untreated residue: neutralize with Limestone or similar. Neutralized residues may be disposed to the foul drain (not into surface water drainage or watercourse).

f) Education of Personnel

Whilst personnel working in the vicinity need not be inducted into the working of the system they should be made aware of the potential hazards – heat, ventilation, the temperature of metal / rubber components etc. A nominated person adjacent, other than the Operator, should be aware of how to safely shut down the system in circumstances unforeseen.

g) Firefighting Equipment

Maintain access of an appropriate fire extinguisher to suit liquid fire in electrical environment.

15. Following the completion of any repair work it is recommended that a final rinse be given to remove any residue.