5131

Proctor Watts Cole Rutter Limited

Shaftesbury Town Council

Shaftesbury Town Hall

Prelims

23-05-2023

Contents

A10
Project particulars

Clauses

110 The Project

1. Name: Shaftesbury Town Hall
2. Nature: Refurbishment
3. Location: Shaftesbury, Dorset

120 Employer (client)

1. Name: Shaftesbury Town Council
2. Address: The Town Hall
   High Street
   Shaftesbury
   Dorset
   SP7 8LY
3. Contact: Brie Logan (Town Clerk)
4. Telephone: 01747 852420
5. Email: office@shaftesbury-tc.gov.uk

140 Architect/ contract administrator

1. Name: PWCR
2. Address: Grosvenor House
   Bleke Street
   Shaftesbury
   Dorset
   SP7 8AW
3. Contact: Brian Watts
4. Telephone: 01747 851881
5. Email: brianwatts@pwcr.co.uk

150 Principal designer

1. Name: PWCR as above

170 Structural Engineer

1. Name: Julia Sanders
2. Address: JS Consulting, 19 Bingham Avenue, Poole BH14 8ND
3. Telephone: 01202 708 465
4. Email: info@jsconsultingltd.co.uk

Ω End of Section

A11
Tender and contract documents

Clauses

110 Tender Drawings

1. The tender drawings are: PWCR W01 site plan, W02 floor plans, W03 Elevations, W04 roof and attic plans and section, W05 N&W Elevations, W06 S&E Elevations
   JS Consulting marked up drawing showing structural works to roof.

120 Contract drawings

1. The contract drawings: The same as the tender drawings.

160 Pre-construction information

1. Format: The pre-construction information is described in these Preliminaries in section A34. It refers to information given elsewhere in the Preliminaries, specification, drawings and associated documents.

Ω End of Section

A12
The site/ existing buildings

Clauses

110 The site

1. Description: The site is shown on PWCR site and location plans, and sits to the south side of Shaftesbury High Street. The town hall sits to the top of the popular tourist destination of Gold Hill with steeply cobbled paths to either side.

120 Existing buildings on/ adjacent to the site

1. Description: The Town hall is grade II listed and was built in 1837 by the Marquess of Westminster. The tower was added in 1879, and rebuilt in its current form in 1925. Built using a mixture of Shaftesbury greensand and Chilmark stone with 5 bays to the high street and Gold hill. The lower ground floor of the building is leased to a restaurant (The Salt Cellar) including some external seating, and this will continue to operate during the works. To the East of the site sits St Peter's Church (also listed) with The Mitre Inn beyond, and various retail outlets sit to the West of the site.

140 Existing utilities and services

1. Drawings: (Information shown is indicative only): Where known are shown on drawings.

200 Access to the site

1. Description: The site is accessed from Shaftesbury high street, or the steeply sloping Gold Hill to the south. Width/turning limitations and the sheer nature of Gold Hill make this unlikely as a suitable access for anything other than light vehicles.
2. Access for inspections: Provide access at reasonable times for both on-site and off-site work.

210 Parking

1. Restrictions on parking of the Contractor's and employees' vehicles: There is no parking available on site, but the town carpark is situated to the North within a two minute walk.

220 Use of the site

1. General: Do not use the site for any purpose other than carrying out the Works.

230 Surrounding land/ building uses

1. General: Adjacent or nearby uses or activities are as follows:
    1.1. ee clause 120 above.

240 Health and safety hazards

1. General: The nature and condition of the site/ building cannot be fully and certainly ascertained before it is opened up. However, the following hazards are or may be present:
    1.1. Working at height and in an exposed (windy) location. Asbestos. Proximity to public thoroughfare/members of the public .
2. Information: The accuracy and sufficiency of this information is not guaranteed. Ascertain if any additional information is required to ensure the safety of all persons and the works.
3. Site staff: Draw to the attention of all personnel working on the site the nature of any possible contamination and the need to take appropriate precautionary measures.

250 Site visit

1. Assessment: Ascertain the nature of the site, access thereto and all local conditions and restrictions likely to affect the execution of the Works.
2. Arrangements for visit: with the Town Clerk (see A10/120)

Ω End of Section

A13
Description of the work

Clauses

120 The works

1. Description: Reroofing of the building using natural slate and single ply membrane including insertion of rooflights, the addition of solar PV panels. Amendments to parapets to add guarding. Re-construction of the south side of the clock chamber including linking section with the main roof. Miscellaneous repairs to the rainwater system including re-routing and replacement of the NE downpipe. General stone repairs to all four elevations of the building as scheduled including the entrance porch. Refurbishment of North facing leaded light windows. Redecoration of external windows and doors as specified. Miscellaneous amendments and decorations to external fittings as scheduled.

Ω End of Section

A20
JCT intermediate building contract (IC)

Clauses

Intermediate building contract (IC)

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

The recitals

First - The Works

- Comprise: Reroofing and refurbishment to the exterior of Shaftesbury Town Hall building
- Location: Shaftesbury Dorset

Second - Contract drawings

- The Contract Drawings: As listed in clause A11/120.

Fourth A - Pricing by the Contractor

- Option A will apply: Option B will be deleted.
- Priced document: Within Option A the following words will be deleted:
  - Bills of Quantities.

Sixth - Information release schedule

- The Sixth Recital will be deleted.

Eighth - Division of the works into sections

- The Eighth Recital will be deleted

Articles

3 - Architect/ Contract Administrator

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

4 - Quantity Surveyor

- Quantity Surveyor: See clause A10/160.

5 - Principal Designer

- Principal designer: See clause A10/150.

6 - Principal Contractor

- Principal contractor: See clause A10/130.

Contract particulars

Fifth Recital and Clause 4.6 - Construction industry scheme (CIS)

- Employer at the Base Date is a 'contractor' is not a 'contractor' for the purposes of the CIS.

Seventh Recital - CDM Regulations

- The project is notifiable.

Tenth Recital and Schedule 5 - Supplemental provisions

- Collaborative working: Supplemental Provision 1 applies.
- Health and safety: Supplemental Provision 2 applies.
- Cost savings and value improvements: Supplemental Provision 3 applies .
- Sustainable development and environmental considerations: Supplemental Provision 4 applies.
- Performance indicators and monitoring: Supplemental Provision 5 applies.
- Notification and negotiation of disputes: Supplemental Provision 6 applies does not apply.

Article 8 - Arbitration

- Article 8 and clauses 9.3 to 9.8 (arbitration) do not apply.

Clause 1.1 - Base Date

- Base Date: 24th Augus 2023

Clause 1.1 - Date for completion of the Works

- Date for completion of the Works (where completion by sections does not apply): As stated on the form of tender and agreed at the pre-contract meeting

Clause 1.7 - Addresses for service of notices

- Employer
  - Address: See clause A10/120
- Contractor
  - Address: TO BE COMPLETED BY CONTRACTOR
  - Fax Number: TO BE COMPLETED BY CONTRACTOR

Clause 2.4 - Date of possession of the site

- Date of Possession of the site: no later than 12 weeks from the date for receipt of tenders

Clause 2.23.2 - Liquidated Damages

- Damages: At the rate of £500 per calendar week.

Clause 2.30 - Rectification period

- Period: Six months from the date of practical completion of the Works.

Clause 4.3 and 4.9 - Fluctuations Provision

- Fluctuations provision: no Fluctuations Provision applies

Clause 4.7 - Advance payment and advance payment bond

- Advance payment: Clause 4.7 does not apply.

Clause 4.8.1 - Interim payments - Interim Valuation Dates

- The first Interim Valuation Date is: to be agreed no later than one month after the date of possession, and thereafter the same date in each month or the nearest Business Day in that month.

Clause 4.9.1 - Interim payments - percentage of value

- Not achieved practical completion: Where the works, or those works in a section, have not achieved practical completion, the percentage of total value in respect of the works that have not achieved practical completion is 95%.
- Completed works: Where the works, or those works in a section, have achieved practical completion, the percentage in respect of the completed works is 97.5%.

Clause 4.10.4 - Listed items - uniquely identified

- The Contract Particulars item for clause 4.10.4 will be deleted.

Clause 6.4.1 - Contractor's Public Liability Insurance: Injury to persons or property

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

Clause 6.7 and Schedule 1 - Works Insurance - insurance options

- Schedule 1: Insurance option C applies.
- Percentage to cover professional fees: 15 per cent.
- Where Insurance Option C applies, Paragraph C1: applies

Clause 6.15 - Joint Fire Code

- The Joint Fire Code: Does not apply.

Clause 7.2.1 - Performance bond or guarantee

- Bond or guarantee from bank or other approved surety: Is required
  - Initial value (percentage of the contract sum): 50% of the contract value
  - Period of validity: The date for practical completion of the works

Clause 9.2.1 - Adjudication

- The Adjudicator is: To be appointed by the nominating body
- Nominating body - where no Adjudicator is named or where the named Adjudicator is unwilling or unable to act (whenever that is established): The Royal Institute of British Architects

The conditions - No Amendments

Section 1: Definitions and Interpretation - No Amendments

Section 2: Carrying out the Works - No Amendments

Section 3: Control of the Works

3.7 - Named subcontractors - windows

- General: The work listed below and described in the contract documents is to be executed by the following persons who are hereby named as subcontractors as provided in Intermediate Building

Contract clause 3.7. (For each such person, a completed Form of Tender and Agreement ICSub/Nam, together with the numbered documents referred to therein, is included with the main contract tender documents).

  - Work to be executed: Refurbishment of Leaded light windows to 1st floor North side
  - Named person: Salisbury Cathedral works - Sam Kelly
- Agreement: The JCT Form of Agreement ICSub/Nam/E will be used.
- Allow for attendance: As described in ICSub/NAM.

3.7 - Named subcontractors - PV panels

- General: The work listed below and described in the contract documents is to be executed by the following persons who are hereby named as subcontractors as provided in Intermediate Building Contract clause 3.7. (For each such person, a completed Form of Tender and Agreement ICSub/Nam, together with the numbered documents referred to therein, is included with the main contract tender documents).
  - Work to be executed: Alterations to and additional PV panels to the south roof slope
  - Named person: Dorset Energy
- Agreement: The JCT Form of Agreement ICSub/Nam/E will be used.
- Allow for attendance: As described in ICSub/NAM.

Section 4: Payment - No Amendments

Section 5: Variations - No Amendments

Section 6: Injury, Damage and Insurance - No Amendments

Section 7: Assignment and Collateral Warranties - No Amendments

Section 8: Termination - No Amendments

Section 9: Settlement of Disputes - No Amendments

Execution

Execution

- The contract: Will be executed as a deed under hand as a deed.

Ω End of Section

A30
Tendering/ subletting/ supply

Main contract tendering

110 Scope

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

145 Tendering procedure

1. General: In accordance with the principles of: the JCT code for single stage tendering .
2. Arithmetical errors: Pricing document is dominant.

160 Exclusions

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

170 Acceptance of tender

1. Acceptance: No guarantee is offered that any tender will be recommended for acceptance or be accepted, or that reasons for non acceptance will be given.
2. Costs: No liability is accepted for any cost incurred in the preparation of any tender.

190 Period of validity

1. Period: After submission or lodgement, keep tender open for consideration (unless previously withdrawn) for not less than 13 weeks.
2. Date for possession/ commencement: See section A20.

Pricing/ submission of documents

210 Preliminaries in the specification

1. Measurement rules: Preliminaries/ General Conditions must not be relied on as having been prepared in accordance with SMM7.

220 Pricing of preliminaries

1. Abbreviations: The following have been used:
2. F = Fixed charge item.
   2.1. TR = Time related charge item.

250 Priced documents

1. Alterations: Do not alter or qualify the priced documents without written consent. Tenders containing unauthorised alterations or qualifications may be rejected.
2. Measurements: Where not stated, ascertain from the drawings.
3. Deemed included: Costs relating to items, which are not priced, will be deemed to have been included elsewhere in the tender.
4. Submit: within one week of request

310 Tender

1. 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.

440 Schedule of rates

1. Schedule of rates (unpriced): Included with the tender documents. The contractor may insert additional items.

480 Programme

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

490 Information release schedule

1. Compatibility with programme: At the same time as submitting the proposed programme or summary, confirm that it is compatible with the Information Release Schedule.
2. Alternative proposals: If any part of the programme is not compatible with the Schedule submit alternative proposals and reasons for varying the times for release of information.

510 Alternative method tenders

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

515 Alternative time tenders

1. General: In addition to and at the same time as tendering based upon the date or period specified in section A20, an alternative tender based upon a different date for completion or period may be submitted.
2. Date for completion: If any such tender is accepted the date for completion inserted in the Contract will be the date stated in the alternative tender or determined from the period stated in the alternative tender.

530 Substitute products

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

540 Quality control resources

1. Statement: Describe the organisation and resources to control the quality of the Works, including the work of subcontractors.

2. QA staff: Identify in the statement the number and type of staff responsible for quality control, with details of their qualifications and duties.
3. Submit: Within one week of request

550 Health and safety information

1. Content: Describe the organization and resources to safeguard the health and safety of operatives, including those of subcontractors, and of any person whom the Works may affect.
2. Include
   2.1. A copy of the health and safety policy document, including risk assessment procedures.
   2.2. Accident and sickness records for the past five years.
   2.3. Records of previous Health and Safety Executive enforcement action.
   2.4. Records of training and training policy.
   2.5. The number and type of staff responsible for health and safety on this project with details of their qualifications and duties.
3. Submit: With the Tender

570 Outline construction phase health and safety plan

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

599 Freedom of Information Act

1. Records: Retain, make available for inspection and supply on request information reasonably required to allow response to requests made under the provisions of the Freedom of Information Act.
2. Determination: Submit requests received. Do not supply information to anyone other than the project participants without express written permission.

3. Confidentiality: Maintain at all times.

Subletting/ supply

630 Domestic subcontracts

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

640 'Listed' domestic subcontractors - Solar Panels

1. General: The work listed below and described in the Contract Documents must be carried out by persons identified in a list as provided for in clause A30/645:
   1.1. The work: Removal and replacement of solar panels
   1.2. Enter into a contract with one of the following:
2. Dorset Energy Solutions Ltd, Mere Road, Peacemarsh, Gillingham SP8 4EU. Tel: 01747 825222.

640 'Listed' domestic subcontractors - Solar Panels (A)

1. General: The work listed below and described in the Contract Documents must be carried out by persons identified in a list as provided for in clause A30/645:
   1.1. The work: Repair to North leaded light casement windows
   1.2. Enter into a contract with one of the following:
2. Sam Kelly, The Fabric Office | The Works Yard | The Close | Salisbury |, Salisbury SP1 2EN Tel:)1722 555115.

Ω End of Section

A31
Provision, content and use of documents

Definitions and interpretations

110 Definitions

1. Meaning: Terms, derived terms and synonyms used in the preliminaries/ general conditions and specification are as stated here or in the appropriate referenced document.

120 Communication

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

130 Products

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

135 Site equipment

1. Definition: Apparatus, appliances, machinery, vehicles or things of whatsoever nature required in or about the construction for the execution and completion of the Works but not materials or other things intended to form or forming part of the Permanent Works.
2. Includes: Construction appliances, vehicles, consumables, tools, temporary works, scaffolding, cabins and other site facilities.
3. Excludes: Products and equipment or anything intended to form or forming part of the permanent works.

140 Drawings

1. Definitions: To BSRIA BG 6, 'A design framework for building services: Design activities and drawing definitions'.
2. CAD data: In accordance with ISO 19650.

145 Contractor's choice

1. Meaning: Selection delegated to the Contractor, but liability to remain with the specifier.

150 Contractor's Design

1. Meaning: Design to be carried out or completed by the Contractor and supported by appropriate contractual arrangements, to correspond with specified requirements.

155 Submit proposals

1. Meaning: Submit information in response to specified requirements.

160 Terms used in specification

1. 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 removal and disposal of associated pipework, wiring, ductwork or other services.

2. Remediate: Action or measures taken to lessen, clean up, remove or mitigate the existence of hazardous materials; in accordance with standards, or requirements as may be set out by statutes, rules, regulations or specification.
3. Fix: Receive, unload, handle, store, protect, place and fasten in position; dispose of waste and surplus packaging. To include all labour, materials and site equipment for that purpose.
4. Supply and fix: As above, but including supply of products, components or systems to be fixed, together with everything necessary for their fixing. All products, components or systems are to be supplied and fixed unless stated otherwise.
5. Keep for reuse: Do not damage designated products or work. Clean off bedding and jointing materials. Stack neatly, protect adequately and store until required by the employer/ purchaser, or until required for use in the works as instructed.
6. Keep for recycling: As 'keep for reuse', but relates to a naturally occurring material rather than a manufactured product.
7. Make good: Execute local remedial work to designated work. Make secure, sound and neat. Excludes redecoration and/ or replacement.
8. Replace: Supply and fix new products matching those removed. Execute work to match original new state of that removed.
9. Repair: Execute remedial work to restore something to its original working state. Make secure, sound and neat. Excludes redecoration and/ or replacement.
10. Refix: Fix removed products.
11. Ease: Adjust moving parts of designated products, or work to achieve free movement and good fit in open and closed positions.
12. 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.
13. System: Equipment, accessories, controls, supports and ancillary items (including installation) necessary for that section of the work to function.

170 Manufacturer and product reference

1. Definition: When used in this combination:
    1.1. Manufacturer: the person or legal entity under whose name or trademark the particular product, component or system is marketed
    1.2. Product reference: the proprietary brand name and/ or identifier by which the particular product, component or system is described.
2. Currency: References are to the particular product as specified in the manufacturer’s technical literature current on the date of the invitation to tender.

200 Substitution of products

1. Products: If an alternative product to that specified is proposed, obtain approval before ordering the product.
2. Reasons: Submit reasons for the proposed substitution.
3. Documentation: Submit relevant information, including:
    3.1. manufacturer and product reference;
    3.2. cost;
    3.3. availability;
    3.4. relevant standards;
    3.5. performance;
    3.6. function;
    3.7. compatibility of accessories;
    3.8. proposed revisions to drawings and specification;

3.9. compatibility with adjacent work;

3.10. appearance;

3.11. copy of warranty/ guarantee.

4. Alterations to adjacent work: If needed, advise scope, nature and cost.
5. Manufacturers' guarantees: If substitution is accepted, submit before ordering products.

210 Cross references

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

220 Referenced documents

1. Conflicts: Specification prevails over referenced documents.

230 Equivalent products

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

240 Substitution of standards

1. Specification to British Standard or European Standard: Substitution may be proposed complying with a grade or category within a national standard of another Member State of the European Community or an international standard recognised in the UK.
2. Before ordering: Submit notification of all such substitutions.
3. Documentary evidence: Submit for verification when requested as detailed in clause A31/200. Any submitted foreign language documents must be accompanied by certified translations into English.

250 Currency of documents and information

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

260 Sizes

1. General dimensions: Products are specified by their co-ordinating sizes.
2. Timber: Cross section dimensions shown on drawings are:
   2.1. Target sizes as defined in BS EN 336 for structural softwood and hardwood sections.
   2.2. 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

1. Additional copies: Issued free of charge.

440 Dimensions

1. Scaled dimensions: Do not rely on.

450 Measured quantities

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

460 The specification

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

Documents provided by contractor/ subcontractors/ suppliers

640 Maintenance instructions and guarantees

1. Components and equipment: Obtain or retain copies, register with manufacturer and hand over on or before completion of the Works.
2. Information location: In Building Manual.

Document/ data interchange - No Amendments

Ω End of Section

A32
Management of the works

Generally

110 Supervision

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

120 Insurance

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

130 Insurance claims

1. 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/ client, the person administering the Contract on their behalf and the Insurers.
2. Failure to notify: Indemnify the employer/ client against any loss, which may be caused by failure to give such notice.

140 Climatic conditions

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

150 Ownership

1. 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

1. Master programme: When requested and before starting work on site, submit in an approved form a master programme for the works, which must include details of:
   1.1. Design, production information and proposals provided by the contractor/ subcontractors/ suppliers, including inspection and checking (see section A31).
   1.2. Planning and mobilization by the contractor.
   1.3. Earliest and latest start and finish dates for each activity and identification of all critical activities.
   1.4. Running in, adjustment, commissioning and testing of all engineering services and installations
   1.5. Work resulting from instructions issued in regard to the expenditure of provisional sums (see section A54)

1.6. Work by or on behalf of the employer and concurrent with the contract (see section A50). The nature and scope of which, the relationship with preceding and following work and any relevant limitations are suitably defined in the contract documents.

2. Exclusions: Where and to the extent that the programme implications for work which is not so defined are impossible to assess, exclude it and confirm this when submitting the programme.

230 Submission of programme

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

260 Site meetings

1. General: Site meetings will be held to review progress and other matters arising from administration of the Contract.
2. Frequency: Every month
3. Location: to be agreed
4. Accommodation: Ensure availability at the time of such meetings.
5. Attendees: Attend meetings and inform subcontractors and suppliers when their presence is required.
6. Chairperson (who will also take and distribute minutes): Architect

270 Contractor's site meetings

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

290 Notice of completion

1. Requirement: Give notice of the anticipated dates of completion of the whole or parts of the Works.
2. Associated works: Ensure necessary access, services and facilities are complete.
3. Period of notice (minimum): Two weeks

310 Extensions of time

1. 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.
2. Details: As soon as possible submit:
   2.1. Relevant particulars of the expected effects, if appropriate, related to the concurrent causes.
   2.2. An estimate of the extent, if any, of the expected delay in the completion of the Works beyond the date for completion.
   2.3. All other relevant information required.

Control of cost

410 Cash flow forecast

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

420 Removal/ replacement of existing work

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

430 Proposed instructions

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

440 Measurement

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

470 Products not incorporated into the Works

1. 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.
2. Evidence: When requested, provide evidence of freedom of reservation of title.

475 Listed products stored off site

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

480 Labour and equipment returns

1. Records: Provide for verification at the beginning of each week in respect of each of the previous seven days.
2. Records must show
   2.1. The number and description of craftsmen, labourers and other persons directly or indirectly employed on or in connection with the Works or Services, including those employed by subcontractors.
   2.2. The number, type and capacity of all mechanical, electrical and power-operated equipment employed in connection with the Works or Services

Ω End of Section

A33
Quality standards/ control

Standards of products and executions

110 Incomplete documentation

1. General: Where and to the extent that products or work are not fully documented, they are to be:
   1.1. Of a kind and standard appropriate to the nature and character of that part of the Works where they will be used.
   1.2. Suitable for the purposes stated or reasonably to be inferred from the project documents.
2. 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

1. Operatives: Appropriately skilled and experienced for the type and quality of work.
2. Registration: With Construction Skills Certification Scheme.
3. Verification: When requested, operatives must produce evidence of skills/ qualifications.

130 Quality of products

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

135 Quality of execution

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

170 Manufacturer’s recommendations/ instructions

1. General: Comply with manufacturer's printed recommendations and instructions current on the date of the Invitation to tender.
2. Exceptions: Submit details of changes to recommendations or instructions.
3. Execution: Use ancillary products and accessories supplied or recommended by main product manufacturer.
4. Products: Comply with limitations, recommendations and requirements of relevant valid certificates.

180 Water for the works

1. Mains supply: Clean and uncontaminated.

Samples/ approvals

210 Samples

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

220 Approval of products

1. Submissions, samples, inspections and tests: Undertake or arrange to suit the Works programme.
2. 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.
3. Complying sample: Retain in good, clean condition on site. Remove when no longer required.

230 Approval of execution

1. Submissions, samples, inspections and tests: Undertake or arrange to suit the Works programme.
2. 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.
3. Complying sample: Retain in good, clean condition on site. Remove when no longer required.

Accuracy/ setting out generally - No Amendments

Services generally

410 Services regulations

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

435 Electrical installation certificate

1. Submit: When relevant electrical work is completed.
2. Original certificate: To be lodged in the Building Manual.

445 Service runs

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

450 Mechanical and electrical services

1. Final tests and commissioning: Carry out so that services are in full working order at completion of the Works.
2. Building Regulations notice: Copy to be lodged in the Building Manual.

Supervision/ inspection/ defective work

540 Defects in existing work

1. Undocumented defects: When discovered, immediately give notice. Do not proceed with affected related work until response has been received.

2. Documented remedial work: Do not execute work which may:
   2.1. Hinder access to defective products or work; or
   2.2. Be rendered abortive by remedial work.

550 Access for inspection

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

560 Tests and inspections

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

610 Proposals for rectification of defective products/ executions

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

620 Measures to establish acceptability

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

630 Quality control

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

Work at or after completion

710 Work before completion

1. General: Make good all damage consequent upon the Works.
2. Temporary markings, coverings and protective wrappings: Remove unless otherwise instructed.
3. Cleaning: Clean the Works thoroughly inside and out, including all accessible ducts and voids. Remove all splashes, deposits, efflorescence, rubbish and surplus materials.
4. Cleaning materials and methods: As recommended by manufacturers of products being cleaned, and must not damage or disfigure other materials or construction.
5. COSHH dated data sheets: Obtain for all materials used for cleaning and ensure they are used only as recommended by their manufacturers.

6. 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.
7. 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

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

730 Making good defects

1. Remedial work: Arrange access with Architect.
2. Rectification: Give reasonable notice for access to the various parts of the Works.
3. Completion: Notify when remedial works have been completed.

Ω End of Section

A34
Security/ safety/ protection

Security, health and safety

110 Pre-construction information

1. Location: Integral with the project Preliminaries, including but not restricted to the following sections:
   1.1. Description of project: Sections A10 and A11.
   1.2. Client's consideration and management requirements: Sections A12, A13 and A36.
   1.3. Environmental restrictions and on-site risks: Section A12, A35 and A34.
   1.4. Significant design and construction hazards: Section A34.
   1.5. The health and safety file: Section A37.

120 Execution hazards

1. Common hazards: Not listed. Control by good management and site practice.
2. Significant hazards: The design of the project includes the following:
   2.1. Hazard: working at height and in an exposed location
   2.2. Precautions assumed: suitable tested scaffolding and management of works to avoid windy weather

130 Product hazards

1. 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'.
2. Common hazards: Not listed. Control by good management and site practice.
3. Significant hazards: Specified construction materials include the following:
   3.1. Hazard: Asbestos
   3.2. Material: As noted in relevant sections of the schedules, and asbestos register

140 Construction phase health and safety plan

1. Submission: Present to the employer/ client no later than two weeks before commencement on site.
2. Confirmation: Do not start construction work until the employer has confirmed in writing that the construction phase health and safety plan includes the procedures and arrangements required by the CDM Regulations.
3. Content: Develop the plan from, and draw on, the outline construction phase health and safety plan, clause A30/570, and the pre-tender health and safety plan/ pre-construction information.

150 Security

1. Protection: Safeguard the site, the Works, products, materials, and any existing buildings affected by the Works from damage and theft.
2. Access: Take all reasonable precautions to prevent unauthorized access to the site, the Works and adjoining property.

160 Stability

1. Responsibility: Maintain the stability and structural integrity of the works and adjacent structures during the contract.

2. Design loads: Obtain details, support as necessary and prevent overloading.

170 Occupied premises

1. Extent: Existing buildings will be occupied and/ or used during the contract as follows: Lower ground floor cafe, and First floor offices will be occupied for the duration of the work.
2. Works: Carry out without undue inconvenience and nuisance and without danger to occupants and users.
3. Overtime: If compliance with this clause requires certain operations to be carried out during overtime, and such overtime is not required for any other reason, the extra cost will be allowed, provided that such overtime is authorized in advance.

210 Safety provisions for site visits

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

Protect against the following

330 Noise and vibration

1. Standard: Comply with the recommendations of BS 5228-1, in particular clause 7.3, to minimize noise levels during the execution of the Works.
2. Equipment: Fit compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.
3. Restrictions: Do not use:
   3.1. Percussion tools and other noisy appliances without consent during the hours of 9:00amd to 5:00pm.
   3.2. Radios or other audio equipment or permit employees to use in ways or at times that may cause nuisance.

340 Pollution

1. Prevention: Protect the site, the works and the general environment (including the atmosphere, land, streams and waterways) against pollution.
2. Contamination: If pollution occurs, report immediately, including to the appropriate authorities, and provide relevant information.

350 Pesticides

1. Use: Not permitted.

360 Nuisance

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

370 Asbestos containing materials

1. Duty: Report immediately any suspected materials discovered during execution of the works.
   1.1. Do not disturb.
   1.2. Agree methods for safe removal or encapsulation.

371 Dangerous or hazardous substances

1. Duty: Report immediately suspected materials discovered during execution of the works.

1.1. Do not disturb.

1.2. Agree methods for safe removal or remediation.

375 Antiquities

1. Duty: Report immediately any fossils, antiquities and other objects of interest or value discovered during execution of the works.
2. Preservation: Keep objects in the exact position and condition in which they were found.

380 Fire prevention

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

390 Smoking on-site

1. Smoking on-site: Not permitted.

400 Burning on-site

1. Burning on-site: Not permitted.

410 Moisture

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

420 Infected timber/ Contaminated materials

1. Removal: Where instructed to remove material affected by fungal/ insect attack from the building, minimize the risk of infecting other parts of the building.
2. Testing: carry out and keep records of appropriate tests to demonstrate that hazards presented by concentrations of airborne particles, toxins and other microorganisms are within acceptable levels.

430 Waste

1. Waste: Includes rubbish, debris, spoil, containers and packaging, and surplus material requiring disposal.
2. Requirement: Minimize production and prevent accumulation of waste. Keep the site and works clean and tidy. Clean out voids and cavities in the construction before closing.
3. Disposal: Collect and store in suitable containers. Remove from site and dispose of in a safe and competent manner, as approved and directed by the waste regulation authority.
4. Recyclable material: Sort and dispose of at a materials recycling facility approved by the waste regulation authority.
5. Documentation: Retain on-site.

440 Electromagnetic interference

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

450 Laser equipment

1. Construction laser equipment: Install, use and store in accordance with BS EN 60825-1 and the manufacturer's instructions.

2. Class 1 or Class 2 laser equipment: Ensure laser beam is not set at eye level and is terminated at the end of its useful path.
3. Class 3R and Class 3B laser equipment: Do not use without approval and subject to submission of a method statement on its safe use.

Protect the following

510 Existing services

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

520 Roads and footpaths

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

555 Wildlife species and habitats

1. Protected habitats and species: Upon discovery immediately advise. Do not proceed until instruction is received.
2. Education: Ensure that employees and visitors to the site receive suitable instruction and awareness training.

560 Existing features

1. 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.

570 Existing work

1. Protection: Prevent damage to existing work, structures or other property during the course of the work.
2. Removal: Minimum amount necessary.
3. Replacement work: To match existing.

580 Building interiors

1. Protection: Prevent damage from exposure to the environment, including weather, flora, fauna, and other causes of material degradation during the course of the work.

620 Adjoining property

1. Permission: Obtain as necessary from other owners if requiring to erect scaffolding on or otherwise use adjoining property.

630 Existing structures

1. Duty: Check proposed methods of work for effects on adjacent structures inside and outside the site boundary.
2. Supports: During execution of the Works:
   2.1. 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.
   2.2. Do not remove until new work is strong enough to support existing structure.
   2.3. Prevent overstressing of completed work when removing supports.
3. Adjacent structures: Monitor and immediately report excessive movement.
4. Standard: Comply with BS 5975 and BS EN 12812.

640 Materials for recycling/ reuse

1. Duty: Sort and prevent damage to stated products or materials, clean off bedding and jointing materials and other contaminants.
2. Storage: Stack neatly and protect until required by the Employer or for use in the Works as instructed.

Ω End of Section

A35
Specific limitations on method/ sequence/ timing

Clauses

110 Scope

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

140 Scaffolding

1. Scaffolding: Make available to subcontractors and others at all times.

180 Completion in sections or in parts

1. General: Where the Employer is to take possession of any Section or part of the Works and such Section or part will, after its practical completion, depend for its adequate functioning on work located elsewhere on the site: Complete such other work in time to permit such possession to take place.
2. Remainder of the Works: During execution, ensure that completed Sections or parts of the Works have continuous and adequate provision of services, fire precautions, means of escape and safe access.

Ω End of Section

A36
Facilities/ temporary work/ services

Generally - No Amendments

Accommodation - No Amendments

Temporary works - No Amendments

Services and facilities

420 Lighting and power

1. Supply: Electricity from the existing mains may be used for the Works as follows:
   1.1. Metering: Metered by the Employer and charged to the Contractor
   1.2. Point of supply: existing 13A sockets
   1.3. Available capacity: 100a
   1.4. Frequency: 50 Hz.
   1.5. Phase: single
   1.6. Current: Alternating.
2. Continuity: No responsibility will be accepted for the consequences of failure or restriction in supply.

430 Water

1. Supply: The existing mains may be used for the Works as follows:
   1.1. Metering: Free of charge
   1.2. Source: mains
   1.3. Location of supply point: existing tap - location to be agreed
2. Continuity: No responsibility will be accepted for the consequences of failure or restriction in supply.

440 Telephones

1. Temporary on site telephone: Provide as soon as practicable after the start on site for joint use by the Contractor and Subcontractors and pay all charges.
2. Responses: Make arrangements (e.g. an external bell) to ensure that incoming calls are answered promptly.

540 Meter readings

1. Charges for service supplies: Where to be apportioned ensure that:
   1.1. Meter readings are taken by relevant authority at possession and/ or completion as appropriate.
   1.2. Copies of readings are supplied to interested parties.

550 Thermometers

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

570 Personal protective equipment

1. General: Provide for the sole use of other members of the project team, in sizes to be specified:

1.1. Safety helmets to BS EN 397, neither damaged nor time-expired. Number required:

1.2. High-visibility waistcoats to BS EN ISO 20471 Class 1. Number required: …….

1.3. Hand protection - to BS EN 388, 407, 420 or 511, as appropriate.

Ω End of Section

A37
Operation/ maintenance of the finished works

Generally

115 The Health and Safety File

1. Responsibility: the contractor
2. Content: Obtain and provide the following information: ..
3.
    - *a brief description of the work carried out;*
    - *any hazards that have not been eliminated through the design and construction processes, and how they have been addressed (e.g. surveys or other information concerning asbestos or contaminated land);*
    - *key structural principles (e.g. bracing, sources of substantial stored energy – including pre- or post-tensioned members) and safe working loads for floors and roofs;*
    - *hazardous materials used (e.g. lead paints and special coatings);*
    - *information regarding the removal or dismantling of installed plant and equipment (e.g. any special arrangements for lifting such equipment);*
    - *health and safety information about equipment provided for cleaning or maintaining the structure;*
    - *the nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services etc;*
    - *information and as-built drawings of the building, its plant and equipment (e.g. the means of safe access to and from service voids and fire doors).*
4. Format: A4 binder
5. Delivery to: Architect By (date): practical completion.

250 Tools

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

Ω End of Section

A40
Contractor’s general cost items: management and staff

Clauses

110 Management and staff

1. Cost-significant items:

Ω End of Section

A41
Contractor’s general cost items: site accommodation

Clauses

110 Site accommodation

1. Details: Site accommodation required or made/ not made available by the Employer: See section A36.
2. Cost significant items:

Ω End of Section

A42
Contractor’s general cost items: services and facilities

Clauses

110 Services and facilities

1. Details: Services or facilities required or made/ not made available by the Employer: See section A36.
2. Cost significant items:

Ω End of Section

A43
Contractor’s general cost items: mechanical plant

Clauses

110 Mechanical plant

1. Cost significant items:

Ω End of Section

A44
Contractor’s general cost items: temporary works

Clauses

110 Temporary works

1. Details: Temporary works required or made/ not made available by the Employer: See section A36.
2. Cost significant items:

Ω End of Section

A54
Provisional work/ items

Clauses

310 Provisional sums for work by specialist subcontractors

1. Item: Repair of leaded light casements to North elevation
2. Description of work: Removal and repair of metal casements, adjustments to the hinges and timber frame, and reinstatement by Salisbury Cathedral works - Sam Kelly
3. Provisional Sums: Include £4000.
4. Add for profit: main contractor's rate%.
5. Allow for general attendance.

520 Provisional sums not specifically for work – Building control prescribed inspection fee

1. Provisional sum: Include: £750.

590 Contingencies

1. Provisional sum: Include: £12,000.

Ω End of Section

Specification created using NBS Chorus

5131

Proctor Watts Cole Rutter Limited

Shaftesbury Town Council

Shaftesbury Town Hall

Spec

23-05-2023

Contents

C41
Repairing/ renovating/ conserving masonry

Generally/ preparation

110 Scope of work

1. Schedule: See separate stone repair schedule and drawings appended to this specification
2. Records of masonry to be repaired: Before starting work, use measurements and photographs as appropriate to record bonding patterns, joint widths, special features, etc.
3. Identification of masonry units to be removed, replaced or repaired: Mark clearly, but not indelibly, on face of masonry units or parts of units to be cut out and replaced. Transcribe markings to drawings/ photographs.

120 Site inspection

1. Purpose: To confirm type and extent of repair/ renovation/ conservation work shown on drawings and described in survey reports and schedules of work.
2. Parties involved: Foreman mason
3. Timing: At least 5 working days before starting each section of work
4. Instructions issued during inspection: To be confirmed by Architect as A10

125 Removal of fittings/ fixtures

1. Items to be removed, and reinstated on completion of repair work: As schedule
   1.1. Identification: Attach labels or otherwise mark items using durable, non-permanent means, to identify location and describe refixing instructions, where applicable.
   1.2. Storage: Protect against damage, and store until required.
   1.3. Reinstatement: Refit in original locations using original installation methods.
2. Masonry fabric and surfaces: Do not damage during removal and replacement of fittings/ fixtures.

130 Removal of plant growths from masonry

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

Workmanship generally

150 Power tools

1. Usage for removal of mortar: Permitted only with prior approval

160 Protection of masonry units and masonry

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

165 Structural stability

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

170 Disturbance to retained masonry

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

180 Workmanship

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

185 Adverse weather

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

190 Control samples

1. General: Complete an area of each of the following types of work, and arrange for inspection before proceeding with the remainder: Mortar repairs. separate samples for greensand and Chilmark stones.

Materials/ production/ accessories

220 Recording profiles

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

240 Stone

1. Supplier: to approval
2. Type: Greensand and Chilmark stone as existing
3. Quality: Free from vents, cracks, fissures, discolouration, or other defects that may adversely affect strength, durability or appearance. Thoroughly seasoned, dressed and worked in accordance with shop drawings prepared by the supplier.

4. Finish: tooled to match existing

245 Replacement stone units

1. Sizes and profiles: To match existing masonry. Maintain existing joint widths.
2. Sinkings for fixings, joggles and lifting devices: Accurately aligned and positioned in relation to existing masonry.
3. Marking: Mark each block/ dressing clearly and indelibly on a concealed face to indicate the natural bed and position in the finished work.

250 Stone orientation

1. Orientation of natural bed
   1.1. In plain walling: Horizontal.
   1.2. In projecting stones and copings: Vertical and perpendicular to wall face.
   1.3. In arches: Perpendicular to line of thrust.

255 Ashlar blocks/ Dressings

1. Cutting and dressing stone: To true and regular surfaces, free from hollow or rough areas.

281 Fixings

1. Description: for replacement stonework
2. Type: Submit proposals.
3. Material: Austenitic stainless steel
4. Size, strength and number: As necessary to resist loads likely to occur during the life of the building, and to prevent lateral displacement or pulling apart of the construction.

Dismantling/ rebuilding - Not Used

Replacements and insertions

330 Preparation for replacement masonry

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

340 Replacement of stone

1. Description: Defective or missing stone as scheduled
2. Stone: As clause 240
3. Bedding depths: not less than 100mm
4. Mortar: As section Z21.
   4.1. Mix: 1:3 ready-mixed nonhydraulic lime putty:sand
5. Fixings: Bonded dowels, as clause 405
6. Joints: Flush to match existing

350 Stone inserts

1. Description: To ashlar faces that have spalled or split and as scheduled

2. Stone: as clause 240
3. Finish: Flush and to match existing.
4. Preparation and insertion: As clause 395.
5. Mortar: As section Z21.
   5.1. Mix: 1:3 nonhydraulic lime:sand with pozzolanic additive, proportion of pozzolan subject to site trials
6. Fine sand to approval
7. Joints: Very fine.

385 Laying replacement masonry units

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

390 Grouting joints

1. Grout mix: Nonhydraulic lime with pozzolanic admixture; mix subject to site trials
2. Joints that cannot be fully filled with bedding mortar: Grout thoroughly around replacement masonry units.
3. Grouting: Keep grout back from exposed face to allow for the depth of pointing, using an approved temporary sealing material. Prevent grout staining exposed face.

395 Installing stone inserts

1. Pockets to receive inserts
   1.1. Cut out accurately. Undercut sides of pocket where necessary to provide space for bonding material.
   1.2. Adjust depth so that insert stands proud of existing stone for finishing in situ.
   1.3. Clean out thoroughly.
2. Inserts: Cut to the smallest rectangular shape necessary to replace the defective area and provide a firm seating. Install accurately and securely.
   2.1. Exposed faces: Keep clear of bonding material.
3. Existing joint widths: Maintain. Do not bridge joints.

405 Bonded dowels

1. Dowels: Austenitic stainless steel
2. Adhesive: Epoxy resin
3. Holes for dowels: Suitably sized and accurately aligned in masonry background and in rear of replacement/ insert stone; clean and dry.
4. Other requirements: Do not use adhesive to bond stones at joints unless instructed.

410 Corroded metal fixings

1. Removal: Cut out carefully, causing the least possible disturbance to surrounding masonry. Remove associated rust debris.

420 Temporary distance pieces for joints in ashlar stonework

1. Material: Lead or stainless steel.

2. Removal: When mortar/ grout is sufficiently strong to take loading without compression.

Tooling/ dressing stone in situ

450 Weathering ledges at joints

1. Locations: Where stones project or are recessed.
2. Requirement: Carefully weather the ledge, to approval.
3. Method: Suitably graded carborundum blocks or tooling as appropriate.

455 Descaling stone

1. Requirement: Carefully remove loose scaling and powdering from stones to the extent agreed.
2. Method: Suitable bristle brushes or carborundum blocks. Do not use wire brushes.

458 Redressing stone

1. Requirement: Carefully dress back stones to the extent agreed.
2. Method: Suitably graded carborundum blocks or tooling as appropriate.

Mortar repairs

510 Preparation for mortar repairs

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

515 Reinforcement for mortar repairs

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

520 Mortar repairs

1. Description: As scheduled
2. Undercoats: As section Z21.
    2.1. Mix: As finishing coat, without stone dust
    2.2. Sand source/ type: Fine sand to approval
    2.3. Building up: In layers where necessary, each layer not exceeding 12 mm.
3. Finishing coat: To match approved samples.
    3.1. Mix: 1:3 nonhydraulic lime putty:sand and stone dust or hot lime technique to approval
    3.2. Sand source/ type: Fine sand to approval
    3.3. Finished thickness: 7 mm
    3.4. Finish: Scraped back, as clause 550 or floated, as clause 555, to approval

540 Applying mortar

1. Surfaces to receive mortar: Clean, and free from dust and debris. Dampen to control suction.
2. Applying coats: Build up in layers to specified thickness. Apply mortar firmly, ensuring good adhesion with no voids. Form a mechanical key to undercoats by combing or scratching to produce evenly spaced lines.
3. Allow each layer to achieve an initial set before applying subsequent coats. Prevent each layer from drying out rapidly by covering immediately with plastics sheeting and/ or dampening intermittently with clean water.
4. Finishing mortar coat: Form accurately to required planes/ profiles, and finish flush with adjacent masonry.
5. Protection: Protect completed repairs from adverse weather until mortar has set.

550 Scraped finish to mortar repairs

1. Procedure: Finish final coat of repair mortar proud of existing masonry face. When mortar is set, but not too hard, scrape back to required face line using fine saw blade or other suitable means, to achieve required finish.

555 Float finish to mortar repairs

1. Procedure: Use a wood float and/ or a felt faced float to give an even overall texture. Do not use steel floats.

Crack repairs/ ties/ reinforcement

610 Mortar repair of cracks

1. Description: As scheduled
2. Mortar: As section Z21.
   2.1. Mix: 1:3 feebly hydraulic lime:sand, to approval
3. Preparation: Clean out cracks to remove debris, dust and dirt. Dampen recesses, as necessary, to control suction.
4. Applying mortar: Press well into cracks so that they are fully filled. Ensure that mortar does not encroach upon exposed faces. Finish mortar flush with masonry face.

640 Pinning

1. Description: Loose stones
2. Dowels/ Pins
   2.1. Standard: To BS EN 1090-1
   2.2. Type: Austenitic stainless steel threaded rods
   2.3. Diameter: 6 mm
   2.4. Additional requirements: Allow provisionally for three dowels per stone Penetration into background not less than 100 mm
3. Resin: Low viscosity resin to approval
4. Holes: Drill carefully, sloping downwards into background. Remove drilling dust and debris and keep dry.
5. Filling holes
   5.1. Check that dowel lengths are correct before filling with resin.
   5.2. Use sufficient resin so that when the dowel is inserted the resin is dispersed to achieve an effective repair.
6. Exposed faces: Keep clean and free from resin stains. Use temporary plugging material and/ or isolating membranes as necessary.

7. Clearances: Keep ends of ties and resin back from face of masonry.
8. Making good after resin has cured: Mortar, as clause 690

690 Making good to injection and insertion holes

1. Preparation: Clean out holes thoroughly.
2. Repair mortar: To match existing masonry units/ joints in colour and texture. Fill holes and finish mortar neatly and flush with surrounding masonry.
3. Finished appearance: Obtain approval for first 3 holes before completing the remainder.

Grouting rubble filled cores - Not Used

Pointing/ repointing

820 Pointing

1. Description: stonework open joints as schedule
2. Preparation of joints: Rake out existing mortar
3. Mortar: As section Z21.
   3.1. Mix: 1:½:2½ nonhydraulic lime putty: pozzolanic admixture:sand
   3.2. Sand source/ type: Crushed stone fine pointing sand to approval
4. Joint profile/ finish: flush to match adjacent pointing

840 Pointing with tools/ Irons

1. General: Press mortar well into joints using pointing tools/ irons that fit into the joints, so that they are fully filled.
2. Face of masonry: Keep clear of mortar. Use suitable temporary adhesive tape on each side of joints where necessary. Finish joints neatly.

860 Brushed finish to joints

1. Timing: After initial mortar set has taken place remove laitance and excess fines by brushing, to give a coarse texture. Do not compact mortar.

Ω End of Section

G20
Carpentry/ timber-framing/ first fixing

General

120 Structural design provided

1. Description: strengthening of roof as shown on Julia Sanders noted drawing
2. Requirements
   2.1. Generally: As section B50/B51.

160 Grading and marking of softwood

1. Timber of a target/ finished thickness less than 100 mm and not specified for wet exposure: Graded at an average moisture content not exceeding 20% with no reading being in excess of 24% and clearly marked as 'DG' (dry-graded).
2. Timber wet-graded and specified for installation at higher moisture contents: graded at an average moisture content above 20% and unmarked.
3. Structural timber members cut from large graded sections: Regraded to approval and marked accordingly.

Products

210 Structural softwood (graded direct to strength class)

1. Description: For structural use generally
2. Grading standard: To BS EN 14081-1 and BS 4978, or other suitable national equivalent, and so marked.
3. Strength class to BS EN 338: C24
4. Treatment
   4.1. Preservative treatment: Organic solvent impregnation to NBS section Z12 and Wood Protection Association Commodity Specification C8
      4.1.1. Design service life: 40 years
   4.2. Flame-retardant treatment: None required

270 Ungraded softwood

1. Description: for internal non-structural use
2. Quality of timber: Free from decay, insect attack (except pinhole borers) and with no knots wider than half the width of the section.
3. Surface finish: Sawn
4. Treatment
   4.1. Preservative treatment: Organic solvent impregnation to NBS section Z12 and Wood Protection Association Commodity Specification C8
      4.1.1. Design service life: 40 years
   4.2. Flame-retardant treatment: None required

275 Wood trim

1. Description: Clock chamber eaves fascia and barge boards
2. Species: Contractor's choice
3. Standard: To BS 1186-3.
   3.1. Class: 2

4. Treatment: Organic solvent impregnation to NBS section Z12 and Wood protection Association Commodity Specification C5
   4.1. Design service life: 40 years
5. Fixing: Two 50 mm lost head nails to each support
6. Other requirements: Undercut bottom edge of boards to form drip

311 Non-structural plywood

1. Description: For parapet gutter boards and
2. Standard: To an approved national standard.
3. Thickness: 18mm
4. Appearance class to BS EN 635: IV
5. Use class to BS EN 335: Use Class 2
6. Bonding quality to BS EN 314-2: Class 2
7. Finish: Unsanded
8. Edges: Square

Workmanship generally

401 Cross section dimensions of structural softwood and hardwood

1. Dimensions: Dimensions in this specification and shown on drawings are target sizes as defined in BS EN 336.
2. Tolerances: The tolerance indicators (T1 and T2) specify the maximum permitted deviations from target sizes as stated in BS EN 336, clause 4.3:
   2.1. Tolerance Class 1 (T1) for sawn surfaces.
   2.2. Tolerance Class 2 (T2) for further processed surfaces.

402 Cross section dimensions of non-structural softwood

1. Dimensions: Dimensions in this specification and shown on drawings are finished sizes.
2. Maximum permitted deviations from finished sizes: As stated in BS EN 1313-1, clause 6 for sawn sections.

420 Warping of timber

1. Bow, spring, twist and cup: Not greater than the limits set down in BS EN 14081-1, BS 4978 and BS EN 844 for softwood

430 Selection and use of timber

1. Timber members damaged, crushed or split beyond the limits permitted by their grading: Do not use.

435 Notches, holes and joints in timber

1. Notches and holes
   1.1. General: Avoid if possible.
   1.2. Sizes: Minimum needed to accommodate services.
   1.3. Position: Do not locate near knots or other defects.
   1.4. In same joist: Minimum of 100 mm apart horizontally.
   1.5. Notches in joists
      1.5.1. Position: Locate at top. Form by sawing down to a drilled hole.
      1.5.2. Depth (maximum): 0.15 x joist depth.

1.5.3. Distance from supports: Between 0.1 and 0.2 x span.

1.6. Holes in joists

1.6.1. Position: Locate on neutral axis.

1.6.2. Diameter (maximum): 0.25 x joist depth.

1.6.3. Centres (minimum): Three x diameter of largest hole.

1.6.4. Distance from supports: Between 0.25 and 0.4 of span.

1.7. Notches in roof rafters, struts and truss members: Not permitted.

1.8. Holes in struts and columns: Locate on neutral axis.

1.8.1. Diameter (maximum): 0.25 x minimum width of member.

1.8.2. Centres (minimum): Three x diameter of largest hole.

1.8.3. Distance from ends: Between 0.25 and 0.4 of span.

2. Scarf joints, finger joints and splice plates: Do not use without approval.

440 Processing treated timber

1. Cutting and machining: Carry out as much as possible before treatment.
2. Extensively processed timber: Retreat timber sawn lengthways, thicknessed, planed, ploughed, etc.
3. Surfaces exposed by minor cutting/ drilling: Treat with two flood coats of a solution recommended by main treatment solution manufacturer.

450 Moisture content

1. Moisture content of wood and wood-based products at time of installation: Not more than:
   1.1. Covered in generally unheated spaces: 24%.
   1.2. Covered in generally heated spaces: 20%.
   1.3. Internal in continuously heated spaces: 20%.

451 Moisture content testing

1. Procedure: When instructed, test timber sections with an approved electrical moisture meter.
2. Test sample: Test 5%, but not less than ten lengths of each cross section in the centre of the length.
3. Test results: 90% of values obtained to be within the specified range. Provide records of all tests.

510 Protection

1. Generally: Keep timber dry and do not overstress, distort or disfigure sections or components during transit, storage, lifting, erection or fixing.
2. Timber and components: Store under cover, clear of the ground and with good ventilation. Support on regularly spaced, level bearers on a dry, firm base. Open pile to ensure free movement of air through the stack.
3. Trussed rafters: Keep vertical during handling and storage.

Jointing timber

570 Jointing/ fixing generally

1. Generally: Where not specified precisely, select methods of jointing and fixing and types, sizes and spacings of fasteners in compliance with section Z20.

615 Bolt/ screw assemblies

1. Description: As noted on structural engineer's drawing

2. Designation: Grade A2 Black bolts to BS EN ISO 898-1, Grade 4.6
3. Size: M12 or as noted on drawing
4. Nuts and washers: Material grade and finish to suit bolts.
5. Washer dimensions: Diameter/ side length of washers in contact with timber faces to be a minimum of three times bolt diameter, with a thickness of not less than 0.3 times bolt diameter.

630 Bolted joints

1. Bolt spacings (minimum): To BS EN 1995-1-1, section 8.5.
2. Holes for bolts: Located accurately and drilled to diameters as close as practical to the nominal bolt diameter, and not more than 2 mm larger.
3. Washers: Placed under bolt heads and nuts that would otherwise bear directly on timber. Use spring washers in locations which will be hidden or inaccessible in the completed building.
4. Bolt tightening: So that washers just bite the surface of the timber. Ensure that at least one complete thread protrudes from the nut.
   4.1. Checking: At agreed regular intervals up to completion. Tighten as necessary.

670 Anti-corrosion finishes for fasteners

1. Galvanizing: To BS 7371-6, with internal threads tapped and lightly oiled following treatment.
2. Sherardizing: To BS 7371-8, Class 1.
3. Zinc plating: To BS EN ISO 4042 and passivated.

Erection and installation

750 Modifications/ Repairs

1. Defects due to detailing or fabrication errors: Report without delay.
2. Methods of rectification: Obtain approval of proposals before starting modification or remedial work.
3. Defective/damaged components: Timber members/ components may be rejected if the nature and/or number of defects would result in an excessive amount of site repair.

760 Temporary bracing

1. Provision: As necessary to maintain structural timber components in position and to ensure complete stability during construction.

770 Additional supports

1. Provision: Position and fix additional studs, noggings and/ or battens to support edges of sheets materials, and wall/ floor/ ceiling-mounted appliances, fixtures, etc. shown on drawings
2. Material properties: Additional studs, noggings and battens to be of adequate size and have the same treatment, if any, as adjacent timber supports.

775 Bearings

1. Timber surfaces which are to transmit loads: Finished to ensure close contact over the whole of the designed bearing area.
2. Packings: Where provided, to cover the whole of the designed bearing area.
   2.1. Crushing strength: Not less than timber being supported.
   2.2. In external or inaccessible locations: Rot and corrosion proof.

780 Wall plates

1. Position and alignment: To give the correct span and level for trusses, joists, etc.

2. Bedding: Fully in fresh mortar.
3. Joints: At corners and elsewhere where joints are unavoidable use nailed half-lap joints. Do not use short lengths of timber.

784 Joists generally

1. Centres: Equal, and not exceeding designed spacing.
2. Bowed joists: Installed with positive camber.
3. End joists: Positioned approximately 50 mm from masonry walls.

795 Trimming openings

1. Trimmers and trimming joists: When not specified otherwise, not less than 25 mm wider than general joists.

850 Inspection generally

1. Structural timber-work: Give reasonable notice before covering up.

860 Bolted joint inspection

1. Timing: Inspect all accessible bolts at the end of the defects liability period and tighten if necessary.

910 Eaves soffit ventilation

1. Soffit boards: Fixed to leave a continuous ventilation opening not less than 10 mm wide for full length of eaves.
2. Insect mesh: A 3-4 mm mesh screen fixed across the opening to prevent large insect entry.

Ω End of Section

H62
Natural slating

To be read with preliminaries/ general conditions.

3 Roof slating

1. Description: To North roofslope, and clock tower as shown on roof and section drawings
2. Substrate: Rafters at 450 mm centres
3. Pitch: 27°
4. Underlay: Vapour-permeable underlay to BS EN 13859, Class W1
   - 4.1. Direction: Parallel to eaves.
   - 4.2. Head-lap (minimum): 150 mm
5. Battens
   - 5.1. Size: 50 x 25 mm
   - 5.2. Fixing: 65 x 3.35 mm galvanized annular ring shank nails
6. Slates
   - 6.1. Supplier: Contractor's choice - submit BS EN 12326-1 conformity
   - 6.2. Product reference: Glendyne Canadian slate
   - 6.3. Size: 610 x 305 mm
   - 6.4. Head-lap (minimum): 116 mm
   - 6.5. Fixing: Two nails each slate.

10 Vertical slating

1. Description: To sides of new clock chamber 'dormer'
2. Substrate: new stud framing as shown on drawings
3. Underlay: as main roof slope
4. Fixing: Parallel to bottom edge.
   - 4.1. Horizontal lap (minimum): 100 mm.
5. Battens
   - 5.1. Size: 50 x 25 mm
6. Slates
   - 6.1. Supplier: All as main roof slope
7. Sidelap: In accordance with BS 5534, clause 5.5, to suit slate size, roof pitch and exposure.
8. Fixing: Two nails each slate.

25 Underlay

1. Handling: Do not tear or puncture.
2. Laying: Maintain consistent tautness.
3. Vertical laps (minimum): 100 mm wide, coinciding with supports.
4. Fixing: Galvanized steel, copper or aluminium 20 x 3 mm extra large clout head nails.
5. Eaves: Where exposed, use an external grade (UV-resistant) underlay or a proprietary eaves support product.
6. Penetrations: Use proprietary underlay seals or cut underlay neatly.
7. Ventilation paths: Do not obstruct.

30 Battens/ Counterbattens

1. Timber: Sawn softwood.
   1.1. Standard: In accordance with BS 5534, Annex D.
   1.2. Moisture content at time of fixing and covering (maximum): 22%.
2. Preservative treatment: As section Z12 and Wood Protection Association Commodity Specification C8.
   2.1. Type: Contractor's choice

32 Batten fixing

1. Setting out: Align parallel to ridge in straight horizontal lines to gauge of slates. Align on adjacent areas.
2. Batten length (minimum): Sufficient to span over three supports.
3. Joints in length: Butt centrally on supports. Joints must not occur more than once in any group of four battens on one support.
4. Additional battens: Provide where unsupported laps in underlay occur between battens.

35 Slate fixing

1. General: Fix slating and accessories to make the whole sound and weathertight at earliest opportunity.
2. Setting out: To true lines and regular appearance. Lay slates with slightly open (maximum 5 mm) butt joints. Align tails.
3. Slate thickness: Consistent in any one course. Lay with thicker end as tail.
4. Ends of courses: Use extra wide slates to maintain bond and to ensure that cut slates are as large as possible. Do not use slates less than 150 mm wide.
5. Top course: Head-nail short course to maintain gauge.
6. Fixing: Centre nail each slate twice through countersunk holes 20-25 mm from side edges.
   6.1. Nails: Copper clout to BS 1202-2 or aluminium clout to BS 1202-3.
   6.2. Nail dimensions: Determine in accordance with BS 5534 to suit site exposure, withdrawal resistance and slate supplier’s recommendations.

40 Mortar bedding/ Pointing

1. Mortar: As section Z21.
   1.1. Mix: In accordance with BS 5534, 1:3 cement:sand, with plasticizing admixtures permitted.
2. Weather: Do not use in wet or frosty conditions or when imminent.
3. Appearance: Finish neatly and remove residue.

66 Metal valleys

1. Underlay: Cut over tilting fillets to lap onto metal valley. Do not lay under metal.
2. Roof slates: Cut extra wide slates adjacent to valley to fit neatly.

70 Side abutments

1. Underlay: Turn up not less than 100 mm at abutments.
2. Abutment slates: Cut as necessary. Fix close to abutments.
3. Soakers: Interleave and turn down over head of abutment slates.

71 Top edge abutments

1. Underlay: Turn up not less than 100 mm at abutments.

2. Top slate courses: Fix close to abutments.

77 Mortar-bedded tile ridges

1. Underlay: Lay courses over ridge. Overlap (minimum) 150 mm.
2. Ridge tiles
   2.1. Manufacturer: Existing tiles re-used - allow to supply 20% replacement tiles to match existing
   2.2. Bedding: On mortar, continuous to edges and solid to joints.
   2.3. Fixing: Secure all ridge tiles to ridge boards or ridge tile fixing battens with self-sealing non-ferrous fixings.
   2.4. Gable end ridge tiles: Fill ends with mortar and slips of tiles finished flush.

86 Ventilator slates to ventilate roof void

1. Ventilator slates:
2. Manufacturer: Cavity trays or similar approved
   2.1. Product reference: Flush Slate ventilator
   2.2. Requirement: To ventilate roof void, and to terminate extracts from w.c.s
   2.3. Positions: 8 each side, In third top tile course

90 Vertical slating bottom edges

1. Slating substrate work: Fix timber tilting fillet to support bottom course of slates in correct vertical plane. Fix flashing to tilting fillet.
2. Underlay: Dress over flashing.
3. Undercourse and bottom course slates: Fix with tails neatly aligned.

91 Vertical slating top edges

1. Top slate courses: Fix under abutment and make weathertight with flashings dressed down not less than 150 mm.

92 Vertical slating side abutments

1. Slating substrate work: Chase abutment wall and insert stepped flashing.
   1.1. Flashing: Return not less than 75 mm behind slating, overlapping underlay and battens. Turn back to form a vertical welt.
2. Abutment slates: Cut and fix neatly.

93 Vertical slating angles with soakers

1. Angle slates: Cut extra wide slates and fix to form a straight, close mitred junction.
2. Soakers: Interleave with angle slates. Fix by nailing to battens at top edge.

Ω End of Section

H71
Lead sheet fully supported roof and wall coverings/ flashings

Types of leadwork

209 Gutter lining – box, parapet, tapered and flat roof valley

1. Substrate: Existing parapet gutters
   1.1. Preparation: remove defective lead gutter linings
2. Sheet underlay: Building paper to BS 1521, Class A1
3. Type of lead: Rolled to BS EN 12588
   3.1. Thickness: 2.50 or 2.65 mm (Code 6)
4. Pretreatment: Apply thin coating of patination oil to underside of lead and allow to dry before laying
5. Joints in direction of fall: Wood-cored roll
6. Cross joints: steps as existing
7. Outlets: Catchpit with overflow pipe Chute outlet through wall to hopper head Catchpit with overflow pipe as outlets to the south gutter

250 Weathering to

1. Description: CORNICES
2. Substrate: Stone
3. Sheet underlay: Not required
4. Type of lead: Rolled to BS EN 12588
   4.1. Thickness: 1.75 or 1.80 mm (Code 4)
5. Joints: Laps (100 mm minimum)
   5.1. Spacing: 1500 mm
6. Edge details: Welted drip at front, upstand at rear with tuck in
7. Fixing: Lead clips at 500 centres
8. Accessories: None

440 Soakers and step flashings

1. Description: AT SIDE ABUTMENTS
2. Lead soakers
   2.1. Thickness: 1.75-2.00 mm (Code 4)
   2.2. Dimensions
      2.2.1. Length: Slate/ tile gauge + lap + 25 mm.
      2.2.2. Upstand: Not less than 75 mm.
      2.2.3. Underlay: Not less than 100 mm.
   2.3. Fixing: By roofer.
3. Lead step flashings
   3.1. Thickness: 1.75 or 1.80 mm (Code 4)
   3.2. Dimensions
      3.2.1. Lengths: Not more than 1500 mm.
      3.2.2. End to end joints: Laps of not less than 100 mm.
      3.2.3. Cover: Overlap to soaker upstands of not less than 65 mm.

3.3. Fixing: Lead wedges at every course.

490 Vertical tiling/ Slating bottom edge flashings

1. Lead
   1.1. Thickness: 1.75 or 1.80 mm (Code 4)
2. Dimensions
   2.1. Lengths: Not more than 1500 mm.
   2.2. End to end joints: Laps of not less than 100 mm.
   2.3. Width: Adequate for underlap to underlay, dressing over tilting fillet, and welted drip or straight cut bottom edge.

492 Vertical tiling/ Slating top edge flashings

1. Lead
   1.1. Thickness: 1.75 or 1.80 mm (Code 4) 2.00 or 2.24 mm (Code 5)
2. Dimensions
   2.1. Lengths: Not more than 1500 mm.
   2.2. End to end joints: Laps of not less than 100 mm.
   2.3. Width: Adequate for underlap to abutment and dressing down over tiles/slates not less than 150 mm.

494 Vertical tiling/ Slating side abutment step flashings

1. Lead
   1.1. Thickness: 1.75 or 1.80 mm (Code 4)
2. Dimensions
   2.1. Lengths: Not more than 1500 mm.
   2.2. End to end joints: Laps of not less than 100 mm.
   2.3. Width: Adequate for not less than 75 mm underlap with welted edge to tiles/ slates and not less than 50 mm cover to abutment.

496 Vertical tiling/ Slating angle soakers

1. Lead
   1.1. Thickness: 1.25 or 1.32 mm (Code 3).
2. Dimensions
   2.1. Length: Tile/ slate gauge + lap + 25 mm.
   2.2. Underlaps: Not less than 150 mm.

General requirements/ preparatory work

510 Workmanship generally

1. Standard: In accordance with BS EN 14783 and BS EN 12588 and to BS 6915 and latest edition of 'Rolled lead sheet. The complete manual' published by the Lead Sheet Training Academy.
2. Fabrication and fixing: To provide a secure, free draining and completely weathertight installation.
3. Operatives: Trained in the application of lead coverings/ flashings. Submit records of experience on request.
4. Preforming: Measure, mark, cut and form lead prior to assembly wherever possible.
5. Marking out: With pencil, chalk or crayon. Do not use scribers or other sharp instruments without approval.

6. Bossing and forming: Straight and regular bends, leaving sheets free from ripples, kinks, buckling and cracks.
7. Solder: Use only where specified.
8. Sharp metal edges: Fold under or remove as work proceeds.
9. Finished work: Fully supported, adequately fixed to resist wind uplift but also able to accommodate thermal movement without distortion or stress.
10. Protection: Prevent staining, discolouration and damage by subsequent works.

516 Lead-welding

1. In situ lead-welding: Is permitted, subject to completion of a 'hot work permit' form and compliance with its requirements.

520 Lead sheet

1. Production method
    1.1. Rolled, to BS EN 12588, or
    1.2. Machine cast and BBA-certified, or
    1.3. 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 ±10%.
2. Identification: Labelled to show compliance with the harmonized standard (hEN) BS EN 14783, where appropriate, and detail of the thickness/ code, weight and type.

570 Existing metal retained

1. Type/ Location/ Extent: Leadwork to south parapet outlets only
2. Cleaning: Remove dirt without damage to metal or adversely affecting other material.

610 Suitability of substrates

1. Condition: Dry and free of dust, debris, grease and other deleterious matter.

620 Preparation of existing timber substrates

1. Remedial work: Adjust boards to level and securely fix. Punch in protruding fasteners and plane or sand to achieve an even surface.
2. Defective boards: Give notice.
3. Moisture content: Not more than 22% at time of covering. Give notice if greater than 16%.

630 Plywood overlay

1. Standard: Manufactured to an approved national standard and to BS EN 636, section 8 (plywood for use in humid conditions).
    1.1. Sheet size: 2400 or 1200 x 1200 mm and 6 mm thick.
2. Moisture content: Not more than 22% at time of covering. Give notice if greater than 16%.
3. Laying: Parallel to perimeter edges with cross joints staggered and a 0.5-1 mm gap between sheets.
4. Fixing: With 25 mm annular ringed shank copper or stainless steel nails, at 300 mm grid centres over the area of each sheet and at 150 mm centres along edges, set in 10 mm from perimeter edges and in pairs across joints.
    4.1. Nail heads: Set flush with or just below the surface.

640 Timber for use with leadwork

1. Quality: Planed, free from wane, pitch pockets, decay and insect attack (ambrosia beetle excepted).
2. Moisture content: Not more than 22% at time of fixing and covering. Give notice if greater than 16%.
3. Preservative treatment: Organic solvent as section Z12 and Wood Protection Association Commodity Specification C8.

646 Sheet underlay

1. Manufacturer: Associated Lead Mills
   1.1. Contact details
      1.1.1. Address: Unit B
      Bingley Road
      Hoddeson
      United Kingdom
      EN11 0NX
      1.1.2. Telephone: +44 (0)199 2444100
      1.1.3. Web: www.associatedlead.co.uk
      1.1.4. Email: sales@leadsales.co.uk
   1.2. Product reference: Building Papers
2. Width: 1 m.
3. Options: Standard A1F.

650 Laying sheet underlay

1. Handling: Prevent tears and punctures.
2. Laying: Butt or overlap jointed onto a dry substrate.
   2.1. Fixing edges: With copper or stainless steel staples or clout nails.
   2.2. Do not lay over roof edges but do turn up at abutments.
   2.3. Wood core rolls: Fixed over sheet underlay.
   2.4. Protection: Keep dry and cover with lead at the earliest opportunity.

Fixing lead

705 Head fixing lead sheet

1. Top edge: Secured with two rows of fixings, 25 mm and 50 mm from top edge of sheet, at 75 mm centres in each row, evenly spaced and staggered.
2. Sheets less than 500 mm deep: May be secured with one row of fixings, 25 mm from top edge of sheet and evenly spaced at 50 mm centres.

710 Fixings

1. Nails to timber substrates: Copper clout nails to BS 1202-2, or stainless steel (austenitic) clout nails to BS 1202-1.
   1.1. Shank type: Annular ringed, helical threaded or serrated.
   1.2. Shank diameter: Not less than 2.65 mm for light duty or 3.35 mm for heavy duty.
   1.3. Length: Not less than 20 mm or equal to substrate thickness.
2. Screws to concrete or masonry substrates: Brass or stainless steel.
   2.1. Diameter: Not less than 3.35 mm.
   2.2. Length: Not less than 19 mm.

2.3. Washers and plastic plugs: Compatible with screws and lead.

3. Screws to composite metal decks: Self tapping as recommended by the deck and lead manufacturer/ supplier for clips.

715 Clips

1. Manufacturer: Contractor's choice
2. Material
   2.1. Lead clips: Cut from sheets of same thickness/ code as sheet being secured.
3. Dimensions
   3.1. Width: 50 mm where not continuous.
   3.2. Length: To suit detail.
4. Fixing clips: Secure each to substrate with either two screw or three nail fixings not more than 50 mm from edge of lead sheet. Use additional fixings where lead downstands exceed 75 mm.
5. Fixing lead sheet: Welt clips around edges and turn over 25 mm.

770 Wedge fixing into joints/ Chases

1. Joint/ chase: Rake out to a depth of not less than 25 mm.
2. Lead: Dress into joint/chase.
   2.1. Fixing: Lead wedges at not more than 450 mm centres, at every change of direction and with at least two for each piece of lead.
3. Sealant: Submit proposals
   3.1. Application: As section Z22.

Jointing lead

810 Forming details

1. Method: Bossing or lead-welding except where bossing is specifically required.
2. Lead-welded seams: Neatly and consistently formed.
   2.1. Seams: Do not undercut or reduce sheet thickness.
   2.2. Filler strips: Of the same composition as the sheets being joined.
   2.3. Butt joints: Formed to a thickness one third more than the sheets being joined.
   2.4. Lap joints: Formed with 25 mm laps and two loadings to the edge of the overlap.
3. Bossing: Carried out without thinning, cutting or otherwise splitting the lead sheet.

845 Wood-cored roll joints with splash lap

1. Wood core
   1.1. Size: 45 x 45 mm round tapering to a flat base 25 mm wide.
   1.2. Fixing to substrate: Brass or stainless steel countersunk screws at not more than 300 mm centres.
2. Undercloak: Dress three quarters around core.
   2.1. Fixing: Nail to core at 150 mm centres for one third length of the sheet starting from the head.
3. Overcloak: Dress around core and extend on to main surface to form a 40 mm splash lap.

860 Drips with splash laps

1. Underlap: Dress into rebate along top edge of drip.
   1.1. Fixing: One row of nails at 50 mm centres on centre line of rebate.
2. Overlap: Dress over drip and form a 40 mm splash lap.

880 Welted joints

1. Joint allowance: 50 mm overlap and 25 mm underlap.
2. Copper or stainless steel clips: Fix to substrate at not more than 450 mm centres.
3. Overlap: Welt around underlap and clips and lightly dress down.

970 Patination oil

1. Manufacturer: Contractor's choice
2. Application: As soon as practical, apply a smear coating to lead, evenly in one direction and in dry conditions.

Ω End of Section

J42
Single-layer polymeric sheet roof coverings

Types of roof covering

130 Single layer sheet cold roof covering systems .

1. Description: To south roof slope beneath solar panels
2. Substrate: existing roof strengthened as structural engineer's details with new plywood deck
   2.1. Preparation: remove existing fibre cement slates, battens and felt
3. Roof covering system: Single ply for Cold roofs
   3.1. Manufacturer: Bauder Ltdor similar approved
      3.1.1. Contact details
         3.1.1.1. Address: 70 Landseer Road
         Ipswich
         Suffolk
         IP3 0DH
         3.1.1.2. Telephone: +44 (0)1473 257671
         3.1.1.3. Web: www.bauder.co.uk
         3.1.1.4. Email: info@bauder.co.uk
      3.1.2. Product reference: Bauder Single Ply Thermofol Cold Roof Membrane System Mechanically Fixed.
   3.2. Preparation
      3.2.1. Horizontal work: As 'Skirtings and vertical work'.
      3.2.2. Skirtings and vertical work: As manufacturer's written details
   3.3. Separating layer: BauderSYN GV 120 glass fleece protection layer.
   3.4. Waterproof covering
      3.4.1. Type: BauderTHERMOFOL U 20 FR.
      3.4.2. Attachment: Membrane fasteners.
   3.5. System accessories: Bauder Thermofol D18 PVC Detailing Membrane.
   BauderSOLAR F Photovoltaic Mounting System.

Performance

210 Roof performance

1. Roof covering: Secure, free-draining and weathertight.

Products

330 Timber trims, etc.

1. Supplier: As roof membrane
2. Quality: Planed. Free from wane, pitch pockets, decay and insect attack, except ambrosia beetle damage.
3. Moisture content at time of covering (maximum): 22%.
4. Preservative treatment: As membrane manufacturer's/ supplier's recommendations

Execution generally

510 Adverse weather

1. General: Do not lay membrane at temperatures below 5°C or in wet or damp conditions unless effective temporary cover is provided over working area.
2. Unfinished areas of roof: Keep dry and protect edges of laid membrane from wind action.

520 Incomplete work

1. End of working day: Provide temporary seal to prevent water infiltration.
2. On resumption of work: Cut away tail of membrane from completed area and remove from roof.

530 Applying primers

1. Surface coverage: Even and full.
2. Coats: Fully bonded. Allow volatiles to dry off thoroughly between coats.

Substrates/ air and vapour control layers/ warm deck roof insulation

610 Suitability of substrates

1. Surfaces to be covered: Secure, clean, dry, smooth, and free from frost, contaminants, voids and protrusions.
2. Preliminary work: Complete, including
    2.1. Grading to correct falls.
    2.2. Formation of upstands, kerbs, box gutters, sumps, grooves, chases and expansion joints.
    2.3. Fixing of battens, fillets and anchoring plugs/ strips.
3. Moisture content and stability of substrate: Must not impair integrity of roof.

660 Joints in rigid board substrates

1. Cover strip: Lay centrally over substrate joints before laying air and vapour control layers or coverings. Adhere to substrate with bonding compound along edges only.

Waterproof membranes/ accessories

710 Mechanical fixing of waterproof membrane

1. Laying: Loose; do not wrinkle or stretch.
2. Installing fasteners
    2.1. Use manufacturer's/ supplier's recommended methods and equipment.
    2.2. Insertion: Correct and consistent.
3. Washers/ pressure plates/ bars
    3.1. Distance from fixed edge (minimum): 10 mm
    3.2. Fixing: Flush with membrane.
4. Sheet overlaps: Extend beyond washers/ pressure plates by minimum 50 mm.
5. Surface condition at completion: Fully sealed, smooth, weatherproof and free-draining.

730 Welded jointing of waterproof membrane

1. Side and end joints
    1.1. Laps (minimum): As manufacturer's written instruction
    1.2. Preparation: Clean and dry surfaces beyond full width of joint.

1.3. Sealing: Weld together.

2. Condition at completion: Fully sealed, smooth, weatherproof and free-draining.

740 Adhesive jointing of waterproof membrane

1. Side and end joints
   1.1. Laps (minimum): as membrane manufacturer's written instructions
   1.2. Preparation: Prime, clean and dry surfaces beyond full width of joint and lap.
   1.3. Sealing: Apply continuous even coverage of adhesive to both surfaces. Mate and roll together. Do not wrinkle or stretch membrane.
2. Condition at completion: Fully sealed, smooth, weatherproof and free-draining.

760 Perimeter of membrane

1. General: Secure membrane at roof edge conditions, changes of plane, curb flashings, upstands to roof lights, etc. with mechanical fasteners.

795 Installing roof ventilators

1. Holes for ventilators: Cut neatly to suit size of vents through perimeter construction.
2. Ventilation paths: Keep clear and unobstructed by insulation.

Surfacing - Not Used

Completion

940 Completion

1. Roof areas: Clean.
   1.1. Outlets: Clear.
2. Work necessary to provide a weathertight finish: Complete.
3. Storage of materials on finished surface: Not permitted.
4. Completed membrane: Do not damage. Protect from traffic and adjacent or high-level working.

Ω End of Section

K11
Rigid sheet flooring/ sheathing/ decking/ sarking/ linings/ casings

Types of flooring/ sheathing/ decking/ sarking/ lining/ casings

110 Wood-based sheets generally

1. Standard: To BS EN 13986.
    1.1. Evidence of compliance: All sheets to be UKCA/ UKNI/ CE marked. Submit Declaration of Performance (DoP).

325 Particleboard flooring

1. Description: TO LOFT ACCESS
2. Substrate: existing ceiling joists with additional support as shown on engineers mark-up drawing
3. Flooring: Particleboard to BS EN 312, Type P5.
    3.1. Thickness: 22 mm
    3.2. Edges: Tongued-and-grooved to all edges
4. Setting out: Long edges running across joists. End joints central over joists and staggered
5. Fixing to joists
    5.1. Fasteners: 50 mm x 8 gauge chipboard screws into pilot holes

515 Plywood roof decking

1. Substrate: existing rafters strengthened as structural engineers marked-up drawing
2. Decking: Plywood manufactured to the relevant standards and quality control procedures specified in BS EN 636, and so marked.
    2.1. Edges: Tongued-and-grooved to all edges
3. Setting out: Long edges running across supports. End joints central over joists and staggered.
4. Fixing
    4.1. Fasteners: 50 mm x 8 gauge wood screws into pilot holes
    4.2. Fixing centres (maximum)
        4.2.1. Along each support: 25 mm from each long edge.
        4.2.2. Around board edges: 150 mm
        4.2.3. Around perimeter of roof area: 150 mm
5. Expansion provision
    5.1. Clear expansion gap around perimeter of roof area and upstands: 10 mm.
    5.2. Intermediate expansion/ movement joints: As recommended by decking manufacturer.

Workmanship

910 Installation generally

1. Timing: Building to be weathertight before fixing boards internally.
2. Moisture content of timber supports (maximum): 18%.
3. Joints between boards: Accurately aligned, of constant width and parallel to perimeter edges.
4. Methods of fixing, and fasteners: As section Z20 where not specified otherwise.

930 Additional supports

1. Additional studs, noggings/ dwangs (Scot) and battens
   1.1. Provision: In accordance with board manufacturer's recommendations and as follows:
      1.1.1. Tongue and groove jointed rigid board areas: To all unsupported perimeter edges.
      1.1.2. Butt jointed rigid board areas: To all unsupported edges.
   1.2. Size: Not less than 50 mm wide and of adequate thickness.
   1.3. Quality of timber: As for adjacent timber supports.
   1.4. Treatment (where required): As for adjacent timber supports.

940 Board moisture content and conditioning

1. Moisture content of boards at time of fixing: Appropriate to end use.
2. Conditioning regime: Submit proposals.

960 Fixing generally

1. Boards/ sheets: Fixed securely to each support without distortion and true to line and level.
2. Fasteners: Evenly spaced in straight lines and, unless otherwise recommended by board manufacturer, in pairs across joints.
   2.1. Distance from edge of board/ sheet: Sufficient to prevent damage.
3. Surplus adhesive: Removed as the work proceeds.

980 Open joints

1. Perimeter joints, expansion joints and joints between boards: Free from plaster, mortar droppings and other debris.
2. Temporary wedges and packings: Removed on completion of board fixing.

990 Access panels

1. Size and position: Agree before boards are fixed.
2. Additional noggings/ dwangs (Scot), battens, etc.: Provide and fix as necessary.

Ω End of Section

L10
Windows/ rooflights/ screens/ louvres

General - Not Used

Products

485 Side Hung roof window units

1. Manufacturer: Fakro GB Ltd
   1.1. Contact details
      1.1.1. Address: FAKRO House
      Astron Business Park
      Hearthcote Road
      Swadlincote
      Derbyshire
      DE11 9DW
      1.1.2. Telephone: +44 (0)1283 554755
      1.1.3. Web: www.fakro.co.uk
      1.1.4. Email: sales@fakrogb.com
   1.2. Product reference: FW Side Hung Escape Window
2. Frame
   2.1. Finish as delivered: Water based acrylic lacquer, clear.
3. Glazing or infill
   3.1. Composition: Insulated, anti-burglary double glazed - P2.
4. Accessories: Not required.
5. Roof window code: FWL. & FWR. to suit location
6. Window size code: 08.
7. External cladding finish: Aluminium, polyester powder coated RAL 7022.
8. Flashing: ESW.
9. Material and finish: Aluminium with polyester powder coating, RAL 7022.
10. Blind: Not required.
11. Other requirements: Not required.

580 Secondary glazing system

1. Description: Allow to take existing secondary glazing system apart, clean and re-assemble with seals correctly aligned.

Execution

710 Protection of components

1. General: Do not deliver to site components that cannot be installed immediately or placed in clean, dry floored and covered storage.
2. Stored components: Stack vertical or near vertical on level bearers, separated with spacers to prevent damage by and to projecting ironmongery, beads, etc.

730 Priming/ sealing

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

820 Ironmongery

1. Fixing: In accordance with any third-party certification conditions applicable. Assemble and fix carefully and accurately using fasteners with matching finish supplied by ironmongery manufacturer. Do not damage ironmongery and adjacent surfaces.
2. Checking/ adjusting/ lubricating: Carry out at Completion and ensure correct functioning.

Ω End of Section

L20
Doors/ shutters/ hatches

To be read with preliminaries/ general conditions.

45 Doors

1. Description: Hardwood doors to clock chamber
2. Manufacturer: doors of distinction or similar approved
   2.1. Product reference: Waterford HWATM with hardwood weather bar 686mm
3. Finish as delivered: primed for site decorations
4. Ironmongery: From the Anvil External beeswax regency lever latch handles Ref 92052, mortice latch, and cranked internal bolts Ref 33129 to each door
5. Fire performance

50 Wood door frames

1. Description: To clock chamber
2. Manufacturer: doors of distinction or similar approved
   2.1. Product reference: hardwood door frame kit
3. Finish as delivered: primed for painting
4. Perimeter seals: EPDM weatherseal
5. Fixing: Plugged and screwed, as section Z20
   5.1. Spacing of fixings (frames not predrilled): Maximum 150 mm from ends of each jamb, adjacent to each hanging point and at 600 mm maximum centres.

80 Sealant joints

1. Sealant
   1.1. Manufacturer: Contractor's choice
   1.2. Colour: black
   1.3. Application: As section Z22 to prepared joints. Triangular fillets finished to a flat or slightly convex profile.

85 Fixing ironmongery generally

1. Fasteners: Supplied by ironmongery manufacturer.
   1.1. Finish/ Corrosion resistance: To match ironmongery.
2. Holes for components: No larger than required for satisfactory fit/ operation.
3. Adjacent surfaces: Undamaged.
4. Moving parts: Adjusted, lubricated and functioning correctly at completion.

Ω End of Section

L30
Stairs/ ladders/ walkways/ handrails/ balustrades

To be read with preliminaries/ general conditions

15 Timber procurement

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

20 Steps within roofspace (to clock tower)

1. Description: Form steps up from walkway into clock tower as shown on drawings
2. Component material, grade, finish as delivered
   2.1. Treads: MRMDF
   2.2. Risers: MRMDF

55 Proprietary balustrades

1. Description: parapet fixed guarding as show on drawings
2. Manufacturer: Simplified Safety
   Unit A2, Cradley Business Park
   Cradley Heath, Birmingham
   B64 7DW
   01384 476 107
   2.1. Product reference: Inline twin rail side fixed handrail cranked to south, returning up east and west parapets,
   and single rail side fixed handrail cranked to North parapet
3. Component material and finish as delivered
   3.1. Guarding: Low-carbon steel - galvanized
   3.2. Handrails: Low-carbon steel - galvanized
4. Fixing: Anchor-fixed to stone parapet

80 Installation generally

1. Fasteners and methods of fixing: To Section Z20.
2. Structural members: Do not modify, cut, notch or make holes in structural members, except as indicated on drawings.
3. Temporary support: Do not use stairs, walkways or balustrades as temporary support or strutting for other work.
4. Applied features (finishes, inserts, nosings, etc.): Substrates to be even, dry, sound and free from contaminants. Make good substrate surfaces and prepare/ prime as applied feature manufacturer's recommendations before application.

Ω End of Section

M60
Painting/ clear finishing

To be read with preliminaries/ general conditions.

13 Gloss paint to existing windows

1. Manufacturer: Armstead Trade
   1.1. Contact details
      1.1.1. Address: Wexham Road
      Slough
      Berkshire
      SL2 5DS
      1.1.2. Telephone: +44 (0)333 222 7070
      1.1.3. Web: www.duluxtrade.co.uk
      1.1.4. Email: project.support@akzonobel.com
   1.2. Product reference: Armstead Trade High Gloss
2. Composition: Alkyd binder with lightfast pigments.
3. Sheen: High gloss.
4. Colour: White
5. Drying time: Touch dry in 4–6 hours. Recoatable after 16–24 hours.
6. Surfaces: Previously decorated
   6.1. Preparation: Remove all loose and defective coatings Degrease and provide key
   Ensure surfaces are clean and dry
7. Initial coats: As recommended by manufacturer
8. Undercoats: As recommended by manufacturer
   8.1. Number of coats: one
9. Finishing coats: Full gloss
   9.1. Number of coats: two

15 Gloss paint to new external joinery

1. Description: To joinery, trims and doors to clock chamber
2. Manufacturer: Armstead Trade
   2.1. Contact details
      2.1.1. Address: Wexham Road
      Slough
      Berkshire
      SL2 5DS
      2.1.2. Telephone: +44 (0)333 222 7070
      2.1.3. Web: www.duluxtrade.co.uk
      2.1.4. Email: project.support@akzonobel.com
   2.2. Product reference: Armstead Trade High Gloss
3. Composition: Alkyd binder with lightfast pigments.
4. Sheen: High gloss.
5. Colour: Anthracite
6. Drying time: Touch dry in 4–6 hours. Recoatable after 16–24 hours.
7. Surfaces: Uncoated

8. Initial coats: As recommended by manufacturer
9. Undercoats: As recommended by manufacturer
   9.1. Number of coats: two
10. Finishing coats: Full gloss
    10.1. Number of coats: two

22 Handling and storage

1. Coating materials: Deliver in sealed containers, labelled clearly with brand name, type of material and manufacturer's batch number.
2. Materials from more than one batch: Store separately. Allocate to distinct parts or areas of the work.

28 Protection

1. 'Wet paint' signs and barriers: Provide where necessary to protect other operatives and general public, and to prevent damage to freshly applied coatings.

30 Preparation generally

1. Standard: In accordance with BS 6150.
2. Refer to any pre-existing CDM Health and Safety File and CDM Construction Phase Plan where applicable.
3. Risk assessments and method statements for suspected hazardous materials: Prepare for operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
4. Preparation materials: Types recommended by their manufacturers and the coating manufacturer for the situation and surfaces being prepared.
5. Substrates: Sufficiently dry in depth to suit coating.
6. Efflorescence salts, dirt, grease and oil: Remove. Give notice if contamination of surfaces/ substrates has occurred.
7. Surface irregularities: Provide smooth finish.
8. Organic growths and infected coatings
   8.1. Remove with assistance of biocidal solution.
   8.2. Apply residual effect biocidal solution to inhibit regrowth.
9. Joints, cracks, holes and other depressions: Fill with stoppers/ fillers. Provide smooth finish.
10. Dust, particles and residues from preparation: Remove and dispose of safely.
11. Water-based stoppers and fillers
    11.1. Apply before priming unless recommended otherwise by manufacturer.
    11.2. If applied after priming: Patch prime.
12. Doors, opening windows and other moving parts
    12.1. Ease, if necessary, before coating.
    12.2. Prime resulting bare areas.

32 Previously coated surfaces generally

1. Preparation: In accordance with BS 6150.
2. Contaminated or hazardous surfaces: Give notice of:
   2.1. Coatings suspected of containing lead.
   2.2. Substrates suspected of containing asbestos or other hazardous materials.
   2.3. Significant rot, corrosion or other degradation of substrates.

3. Risk assessment and method statement for hazardous materials: Prepare for operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
4. Removing coatings: Do not damage substrate and adjacent surfaces or adversely affect subsequent coatings.
5. Loose, flaking or otherwise defective areas: Carefully remove to a firm edge.
6. Alkali affected coatings: Completely remove.
7. Retained coatings
    7.1. Thoroughly clean.
    7.2. Gloss-coated surfaces: Provide key.
8. Partly removed coatings
    8.1. Apply additional preparatory coats.
    8.2. Junctions: Provide flush surface.
9. Completely stripped surfaces: Prepare as for uncoated surfaces.

37 Wood preparation

1. General: Provide smooth, even finish with lightly rounded arrises.
2. Degraded or weathered surface wood: Take back surface to provide suitable substrate.
3. Degraded substrate wood: Repair with sound material of same species.
4. Heads of fasteners: Countersink sufficient to hold stoppers/ fillers.
5. Resinous areas and knots: Apply two coats of knotting.
6. Defective primer: Take back to bare wood and reprime.

39 Steel preparation

1. Areas of defective primer, corrosion and loose scale: Take back to bare metal. Reprime as soon as possible.
2. Defective paintwork: Remove to leave a firm edge and clean bright metal.
3. Sound paintwork: Provide key for subsequent coats.
4. Corrosion and loose scale: Take back to bare metal.
5. Residual rust: Treat with a proprietary removal solution.
6. Bare metal: Apply primer as soon as possible.
7. Remaining areas: Degrease.

41 Masonry and rendering preparation

1. Loose and flaking material: Remove.

45 Previously painted window frames

1. Paint encroaching beyond glass sight line: Remove.
2. Loose and defective putty: Remove.
3. Putty cavities and junctions between previously painted surfaces and glass: Clean thoroughly.
4. Finishing
    4.1. Patch prime, reputty, as necessary and allow to harden.
    4.2. Seal and coat as soon as sufficiently hard.

50 External pointing to existing frames

1. Defective sealant pointing: Remove.
2. Joint depth: Approximately half joint width; adjust with backing strip if necessary.

3. Sealant
    3.1. Manufacturer: Dow Corning or similar approved
    3.2. Preparation and application: As section Z22.

61 Coating generally

1. Application: In accordance with BS 6150,
2. Conditions: Maintain suitable temperature, humidity and air quality.
3. Surfaces: Clean and dry at time of application.
4. Thinning and intermixing: Not permitted unless recommended by manufacturer.
5. Overpainting: Do not paint over intumescent strips or silicone mastics.
6. Priming coats: Apply as soon as possible on same day as preparation is completed.
7. Finish
    7.1. Even, smooth and of uniform colour.
    7.2. Free from brush marks, sags, runs and other defects.
    7.3. Cut in neatly.
8. Doors, opening windows and other moving parts: Ease before coating and between coats.

68 Staining wood

1. Primer: Apply, if recommended by stain manufacturer.
2. Application: Apply in flowing coats and brush out excess stain to produce uniform appearance.

70 External doors

1. Bottom edges: Prime and coat before hanging.

75 Bead glazing to coated wood

1. Before glazing: Apply first two coats to rebates and beads.

80 Linseed oil putty glazing

1. Setting: Allow putty to set for seven days.
2. Sealing
    2.1. Within a further 14 days, seal with a solvent-borne primer.
    2.2. Fully protect putty with coating system as soon as it is sufficiently hard.
    2.3. Extend finishing coats on to glass up to sight line.

Ω End of Section

R10
Rainwater drainage systems

To be read with preliminaries/ general conditions.

32 Cast iron pipework - flexible couplings

1. Standard: To BS EN 877, Agrément certified.
2. Manufacturer: Rainclear or similar approved
3. Nominal size: DN100 to match existing
4. Finish as supplied: Prepainted semigloss black
5. Brackets: Cast iron holderbats
   5.1. Fixings: Stainless steel screws
      5.1.1. Size: As manufacturer's written instructions
6. Accessories: Rainwater hopper head to match existing
7. Fixing: As manufacturer's written instructions
8. Jointing: silicone sealed

50 Installation generally

1. Electrolytic corrosion: Avoid contact between dissimilar metals where corrosion may occur.
2. Discharge of rainwater: Complete, and without leakage or noise nuisance.
3. Components: Obtain from same manufacturer for each type of pipework and guttering.
4. Allowance for thermal and building movement: Provide and maintain clearance as fixing and jointing proceeds.
5. Fixings and fasteners: As section Z20.
6. Protection
   6.1. Fit purpose made temporary caps to prevent ingress of debris.
   6.2. Fit access covers, cleaning eyes and blanking plates as the work proceeds.

70 Pipework

1. Fixing: Securely, plumb and/ or true to line with additional supports as necessary to support pipe collars, particularly at changes in direction.
2. Cut ends of pipes and gutters: Clean and square with burrs and swarf removed.

Ω End of Section

R11
Above ground foul drainage systems

General

115 Above ground foul drainage system

1. Sanitary and floor drainage outlets: Existing foul drainage stacks vary around the building in size and material. As noted in the schedule, the project includes the replacement of any external exposed plastic pipework with Cast iron as specified below
2. Waste pipework: plastic internally, of if external, c.i.
3. Disposal: To existing (unchanged) below ground drainage.

System performance - Not Used

Products

335 Cast iron pipework – spigot and socket

1. Description: - FOR DISCHARGE STACKS AND BRANCHES
2. Standard: To BS 416-1 with sockets.
3. Manufacturer: Hargreaves
   3.1. Product reference: Hargreaves Traditional Express or similar approved
4. Type: Submit proposals
5. Nominal sizes: DN 100
6. Finish: Factory prepainted semigloss black
7. Brackets: to match existing
   7.1. Fixings: Stainless steel screws
      7.1.1. Size: as manufacturer's written instructions
8. Accessories: as required to complete the installation shown on the drawings

400 Paint for cut ends of cast iron pipes

1. Manufacturer: Armitage as M60

Fabrication - Not Used

Execution

601 Installation generally

1. Standard: To BS EN 12056-5.
2. Components: From the same manufacturer for each type of pipework.
3. Electrolytic corrosion: Avoid contact between dissimilar metals where corrosion may occur.
4. Plastics and galvanized steel pipes: Do not bend.
5. Allowance for thermal and building movement: Provide and maintain clearance as fixing and jointing proceeds.
6. Concealed or inaccessible surfaces: Decorate before starting work specified in this section.
7. Protection
   7.1. Purpose made temporary caps: Fit to prevent ingress of debris.
   7.2. Access covers, cleaning eyes and blanking plates: Fit as the work proceeds.

605 Pipe routes

1. General: The shortest practical, with as few bends as possible.
   1.1. Bends in wet portion of soil stacks: Not permitted.
   1.2. Routes not shown on drawings: Submit proposals before commencing work.

610 Fixing pipework

1. Pipework: Fix securely plumb and/ or true to line. Fix discharge stack pipes at or close below socket collar or coupling.
2. Branches and low gradient sections: Fix with uniform and adequate falls to drain efficiently.
3. Externally socketed pipes and fittings: Fix with sockets facing upstream.
4. Additional supports: Provide as necessary to support junctions and changes in direction.
5. Vertical pipes: Provide a load bearing support not less than every storey level. Tighten fixings as work proceeds so that every storey is self supporting.
6. Wall and floor penetrations: Isolate pipework from structure, e.g. with pipe sleeves.
   6.1. Masking plates: Fix at penetrations if visible in the finished work.
7. Expansion joint sockets: Fix rigidly to the building.
8. Fixings: Allow the pipe to slide.

630 Jointing pipework – generally

1. General: Joint with materials, fittings and techniques that will make effective and durable connections.
2. Jointing differing pipework systems: With adaptors intended for the purpose.
3. Cut ends of pipes: Clean and square. Remove burrs and swarf. Chamfer pipe ends before inserting into ring seal sockets.
4. Jointing or mating surfaces: Clean and, where necessary, lubricate immediately before assembly.
5. Junctions: Form with fittings intended for the purpose.
6. Jointing material: Do not allow it to project into bore of pipes and fittings.
7. Surplus flux, solvent jointing materials and cement: Remove from joints.

640 Jointing pipework – cast iron – flexible couplings

1. Jointing: Paint cut ends of pipes.

705 Access for testing and maintenance

1. General: Install pipework with adequate clearance to permit testing, cleaning and maintenance, including painting where necessary.
2. Access fittings and rodding eyes: Position to avoid obstruction.

Completion

900 Testing generally

1. Dates for testing: Give notice.
   1.1. Period of notice (minimum): 2 working days
2. Preparation
   2.1. Pipework: Securely fixed and free from obstruction and debris.
   2.2. Traps: Filled with clean water.
3. Testing
   3.1. Supply clean water, assistance and apparatus.

3.2. Do not use smoke to trace leaks.

4. Records: Submit a record of tests.

905 Pipework airtightness test

1. Preparation
   1.1. Open ends of pipework: Temporarily seal using plugs.
   1.2. Test apparatus: Connect a 'U' tube water gauge and air pump to pipework via a plug or through trap of an appliance.
2. Testing: Pump air into pipework until gauge registers 38 mm.
3. Required performance: Pressure of 38 mm is to be maintained without loss for at least three minutes.

Ω End of Section

Specification created using NBS Chorus