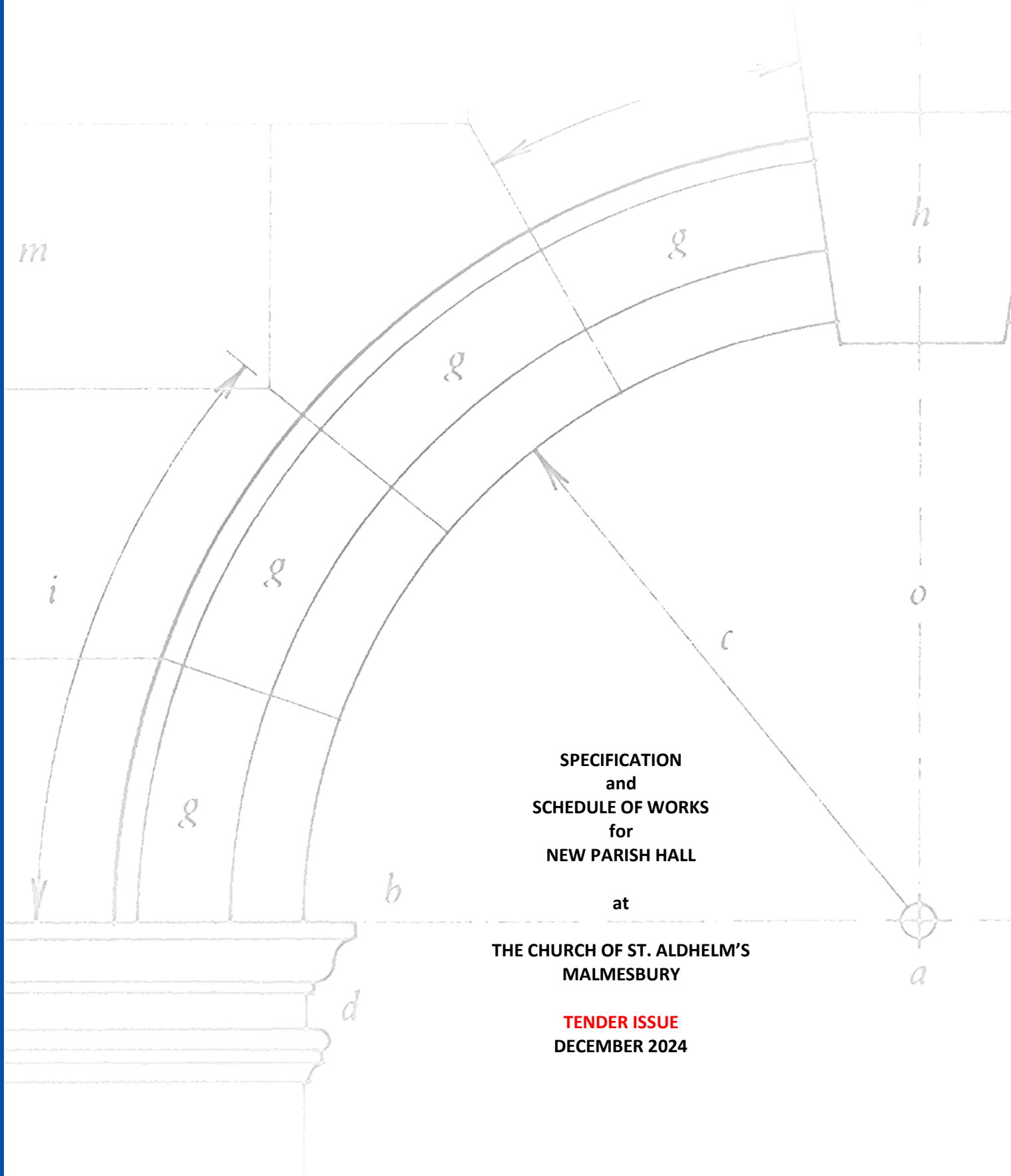
CHEDBURN•CODD
CONSERVATION ARCHITECTS
Historic Building Consultants



SPECIFICATION
and
SCHEDULE OF WORKS
for
NEW PARISH HALL

at

THE CHURCH OF ST. ALDHELM'S
MALMESBURY

TENDER ISSUE
DECEMBER 2024

Section 1
SPECIFICATION
SECTION A – PRELIMINARIES
TENDER ISSUE – Dec24

2220 Malmesbury,
St Aldhelms

Chedburn Codd

St. Aldhelm's Roman Catholic Church

St Aldhelm's Church - Parish Hall

2220-Malmesbury Preliminaries

Contents

A10
Project particulars

Clauses

110 The Project

1. Name: St Aldhelm's Parish Hall
2. Nature: New build - Parish Hall
3. Location: St Aldhelm's Roman Catholic Church, 26 Cross Hayes, Malmesbury, Wiltshire SN16 9BG
4. Timescale for construction work: To be agreed

120 Employer (client)

1. Name: Clifton Diocese
2. Address: Alexander House, 160 Pennywell Road, Bristol BS5 0TX
3. Contact: Paul Hankinson - Senior Surveyor

130 Principal contractor (CDM)

1. Name: To be confirmed

140 Architect/ contract administrator

1. Name: Chedburn Codd
2. Address: Glove Factory Studios, 1 Book Lane, Holt, Wiltshire BA14 6RL
3. Telephone: 01225 859999
4. Email: chedburn@chedburn.com

150 Principal designer

1. Name: Chedburn Codd
2. Address: Glove Factory Studios, 1 Brook Lane, Holt, Wiltshire BA14 6RL
3. Telephone: 01225 859999
4. Email: chedburn@chedburn.com

160 Quantity surveyor

1. Name: DB Quantity Surveying Ltd
2. Address: 16 Maylings Farm Road, Fareham, Hants PO16 7QU
3. Contact: David Best
4. Telephone: 01329 286593
5. Email: david.best@dbqs.co.uk

170 Structural Engineer

1. Name: Mann Williams
2. Address: 7 Old King Street, Bath BA1 2JW
3. Telephone: 01225 464419
4. Email: bath@mannwilliams.co.uk

176 Mechanical & Electrical Engineers

1. Name: BJP Consulting Engineers
2. Address: The Well House, Manor Courtyard, Stratton on the Fosse, Bath BA3 4QF
3. Telephone: 01761 239193
4. Email: enquiries@bjp-uk.com

200 Archaeologist

1. Name: Context One - Heritage & Archaeology
2. Contact: Cheryl Green
3. Address: Hillside, Hunger Hill, East Stoure, Gillingham, Dorset SP8 5JS
4. Telephone: 01747 839851
5. Email: mail@contextone.co.uk

Ω End of Section

A11
Tender and contract documents

Clauses

110 Tender Drawings

1. The tender drawings are: Chedburn Codd – Architectural Package
   As Existing
   - 2220/01 – Location and Block Plans – AS @ A3
   - 2220/04 – Ground Floor Plan – 1:100 @ A3
   - 2220/05 – First Floor Plan – 1:100 @ A3
   - 2220/06 – Roof Plan – 1:100 @ A3
   - 2220/07 – W & N Elevations – 1:100 @ A3
   - 2220/08 – S & E Elevations – 1:100 @ A3

   As Proposed
   - 2220/40 – Site Protection and Access Plan – 1:200 @ A2
   - 2220/41 – Demolition Plan & Enabling Works – 1:50 @ A1
   - 2220/44 – Drainage Below Ground – 1:50@A1
   - 2220/50 – Ground Floor Plan – 1:50 @ A1
   - 2220/51 – First Floor Plan – 1:50 @ A2
   - 2220/52 – Roof Plan – 1:50 @ A2
   - 2220/53 – West & North Elevations – 1:50 @ A1
   - 2220/54 – South & East Elevations – 1:50 @ A1
   - 2220/55 – Section AA – 1:20 @ A1
   - 2220/56 – Section BB – 1:20 @ A1
   - 2220/57 – Section CC – 1:20 @ A1
   - 2220/58 – Section DD – 1:20 @ A1
   - 2220/59 – Section EE – 1:20 @ A1
   - 2220/60 – Section FF – 1:20 @ A1
   - 2220/61 – Sections GG & HH – 1:20 @ A1
   - 2220/62 - Fire compartmentation - 1:100@A3
   - 2220/70 – Kitchen Layout – 1:20 @ A1

- 2220/71 – WC Layouts – 1:20 @ A1
- 2220/72 – Stair Details – AS @ A1
- 2220/73 – Internal Doors – 1:20 @ A1
- 2220/74 - Waterproofing details - 1:10 @ A3
- 2220/75 - Column insulation below ground - 1:5 @ A3
- 2220/76 - Column cladding above ground - 1:5 @ A3
- 2220/77 - Window Sill & Beam Details - 1:5 @ A3
- 2220/78 - Arch Window - 1@10 @ A3
- 2220/79 - Dormer Window - 1:20 @ A3
- 2220/80 - Glazed Internal Fire Screens - AS @ A1
- 2220/81 - External Louvres - 1:5@A3

BJP – M&E Package

- 24/1998/E/01 – Proposed Power & Data Services Layout – 1:50 @ A1
- 24/1998/E/02 – Proposed Lighting Services Layout – 1:50 @ A1
- 24/1998/E/03 – Proposed Alarm Services Layout – 1:50 @ A1
- 24/1998/E/04 – Proposed Lightning Protection Services Layout – 1:50 @ A1
- 24/1998/E/05 – Proposed Electrical Services to be Removed Layout – 1:50 @ A1
- 24/1998/E/06 – Proposed Electrical Schematics Layout – NTS @ A1
- 24/1998/M/01 – Proposed Domestic Water & Heating & Cooling Services Layout – 1:50 @ A1
- 24/1998/M/02 – Proposed Ventilation Services Layout – 1:50 @ A1
- 24/1998/M/03 – Proposed Drainage Services Layout – 1:50 @ A1

Mann Williams – Structural Package

- 12349/0701/P4 – Project Notes (Specification) – A1
- 12349/1050/P5 – Foundations GA – 1:50 @ A1
- 12349/1051/P5 – Ground Floor GA – 1:50 @ A1
- 12349/1101/P5 – First Floor GA – 1:50 @ A1
- 12349/1201/P4 – Roof GA – 1:50 @ A1
- 12349/2001/P4 - Elevations Sheet 1 - 1:50 @ A1
- 12349/2002/P3 - Elevations Sheet 2 - 1:50 @ A1
- 12349/2011/P5 – Building Sections Sheet 1 – 1:50 @ A1
- 12349/2012/P5 – Building Sections Sheet 2 – 1:50 @ A1
- 12349/3011/P4 - Ground Floor Details Sheet 1 - AS @ A1
- 12349/3012/P1 - Ground Floor Details Sheet 2 - AS @ A1
- 12349/3101/P3 - First Floor Details Sheet 1 - AS @ A1
- 12349/3102/P2 - First Floor Details Sheet 2 - AS @ A1
- 12349/3201/P3 - Roof Details Sheet 1 - AS @ A1

120 Contract drawings

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

130 Quantities drawings

1. The drawings from which the bills of quantities were prepared are the tender drawings.
2. Exceptions: None

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 the Roman Catholic Church of St. Aldhelm's, 26 Cross Hayes Ln, Malmesbury SN16 9BG

120 Existing buildings on/ adjacent to the site

1. Description: St Aldhelm’s Church, Malmesbury, is found on the east side of a square with buildings situated around a small inner courtyard behind a stone boundary wall with railings and gates. The principal church building is to the southeast of the proposed working area, and presbytery building to the south of the proposed working area - access required at all times to both buildings. In addition, there is a Public library to the north east of the proposed working area; office/residential buikldings to the north oif the site; public car park and highway/pavement (Cross Hayes) to the west of the site

140 Existing utilities and services

1. Drawings: (Information shown is indicative only): Refer to Architect & M&E Drawings.

200 Access to the site

1. Description: St Aldhelm’s Church, Malmesbury, is found on the east side of the square with buildings situated around a small inner courtyard behind a stone boundary wall with railings and gates - the site is off the east side of Cross Hayes. Malmesbury is a town and civil parish in north Wiltshire, England, which lies approximately 14 miles west of Swindon, 25 miles northeast of Bristol, and 9 miles north of Chippenham.
2. Limitations: See drawing 2220/40
3. 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: Refer to drawing 2220/40

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. principal church building to the southeast of the proposed working area, presbytery building to the south of the proposed working area - access required at all times.
    1.2. Adjoining land:: Public library to the north east of the proposed working area; office/residential buikldings to the north oif the site; public car park and highway/pavement to the west of the site

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. unrecorded services/voids.
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: Contact the Architect for internal access to existing buildings affected by these works.

Ω End of Section

A13
Description of the work

Clauses

110 Preparatory work by others

1. Details: None

120 The works

1. Description: Demolition of existing hall building and adjoining garaging. Construction of new Church Hall building with associated services and external landscaping.

130 Work by others concurrent with the Contract

1. Description: None

140 Completion work by others

1. Description: None

Ω End of Section

A20
JCT intermediate building contract with contractor's design (ICD)

Clauses

Intermediate building contract with contractor's design (ICD)

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

The recitals

First - The Works

- Comprise: Demolition of existing hall building and adjoining garaging. Construction of new Church Hall building with associated services and external landscaping.
- Location: St Aldhelm's Roman Catholic Church, 26 Cross Hayes, Malmesbury, Wiltshire SN16 9BG

Second - Contractor's designed portion

- The Works include the design and construction of
  - Steelframe and associated connections - based on structural engineers proposals.

Third - Contract drawings

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

Fourth - Other documents supplied by the Employer

- Comprise: Specifications & Bill of Quantities
- Named person: The whole of the text referring to a named person as a subcontractor Select from list be deleted.

Fifth 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:
  - Work Schedules.
- Priced Activity Schedule: The words 'and has provided the Employer with a priced schedule of activities annexed to this Contract (the Activity Schedule)' will be deleted.

Eleventh - Division of the works into sections

- The Eleventh 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.

9 - Legal proceedings

- Amendments: None

Contract particulars

Fourth Recital - Employer's Requirements

- Comprise: not applicable for tender

Sixth Recital - Contractor's Proposals/ CDP Analysis

- Comprise: TO BE COMPLETED BY CONTRACTOR
- Specific Requirements: not applicable for tender

Eighth Recital and Clause 4.6 - Construction industry scheme

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

Tenth Recital - CDM Regulations

- The project is notifiable.

Eleventh Recital - Description of Sections

- Description of Sections
  - not applicable.

Twelfth Recital - Framework Agreement

- Framework agreement: not applicable

Thirteenth Recital and Schedule 5 - Supplemental provisions

- Collaborative working: Supplemental Provision 1 does not apply.
- Health and safety: Supplemental Provision 2 applies.
- Cost savings and value improvements: Supplemental Provision 3 does not apply.
- Sustainable development and environmental considerations: Supplemental Provision 4 applies.
- Performance indicators and monitoring: Supplemental Provision 5 does not apply.
- Notification and negotiation of disputes: Supplemental Provision 6 applies.
- Where Supplemental Provision 6 applies, the respective nominees of the parties are
  - Employer's nominee: To be agreed
  - Contractor's nominee: TO BE COMPLETED BY CONTRACTOR. Or such replacement as each party may notify to the other from time to time.

Article 8 - Arbitration

- Article 8 and clauses 9.3 to 9.8 (arbitration) apply.

Clause 1.1 - Base Date

- Base Date: 1st November 2024

Clause 1.1 - BIM Protocol

- BIM Protocol (where applicable): not applicable

Clause 1.1 - Date for completion of the Works

- Date for completion of the Works (where completion by sections does not apply): to be agreed on appointment

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: to be agreed on appointment

Clause 2.5 - Deferment of possession of the site

- Clause 2.5 does not apply.

Clause 2.23.2 - Liquidated Damages

- Damages: At the rate of £250 per calendar week (i.e. 7 days) or pro-rata thereto.

Clause 2.30 - Rectification period

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

Clause 2.34.3 - Contractor's designed portion

- Limit of Contractor's liability for loss of use: unlimited

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: one calendar month after commencement, 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.

4.10.5 - Listed items - not uniquely identified

- Listed items: The Contract Particulars entry for Clause 4.10.5 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: Not less than: £5,000,000 (Five million pounds)

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: insurance arrangements - details of the required policy or policies: Employer: to maintain building and contents insurance policy.
  Contractor: to maintain an all risks policy which covers all demolition/clearance works and un-fixed materials.

Clause 6.10 and Schedule 1 - Terrorism cover

- Details of the required cover
  - not applicable.

Clause 6.15 - Joint Fire Code

- Joint Fire Code: Applies.
- Application: State whether the insurer under Insurance Option A, B or C (paragraph C.2) has specified that the Works are a 'Large Project': No.

Clause 6.19 - Contractor's Design Portion - Professional Indemnity Insurance

- Level of cover: Amount of indemnity required:
  - relates to claims or series of claims arising out of one even;
  - and is £ 3,000,000.
- Cover for pollution and contamination claims: Is not required
- Expiry of required period of CDP Professional Indemnity Insurance: 12 years

Clause 8.9.2 - Period of suspension (termination by Contractor)

- Period of suspension: Two months

Clauses 8.11.1.1 to 8.11.1.5 - Period of suspension (termination by either Party)

- Period of suspension: Two months

Clause 9.2.1 - Adjudication

- The Adjudicator is: To be agreed
- 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

Clause 9.4.1 - Arbitration

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

The conditions - No Amendments

Section 1: Definitions and Interpretation

1.5 - Reckoning periods of days

- Amendments: Not applicable

1.12 - Applicable law

- Amendments: None

Section 2: Carrying out the Works - No Amendments

Section 3: Control of the Works - No Amendments

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 under hand.

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 Construction Industry Board 'Code of Practices for the selection of a main contractor'.
2. Arithmetical errors: Overall price 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 3 calendar months.
2. Date for possession/ commencement: See section A20.

Pricing/ submission of documents

210 Preliminaries in the specification

1. The Preliminaries/ General conditions sections (A10-A56 inclusive) must not be relied on as complying with SMM7/ NRM2

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

300 Quantities in the priced document

1. Quantities: Where included in the priced document, these have been prepared in accordance with NRM2.

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.

360 Priced activity schedule

1. Submit: Within one week of request

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: With tender

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.

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.

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: Within one week of request

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.

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: With tender

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.

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 on request and charged to the Contractor.

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

630 Technical literature

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

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.
3. Emergency call out services: Provide telephone numbers for use after completion. Extent of cover: twenty four hours seven days a week.

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.

118 Vehicle safety requirements

1. Vehicle equipment: Ensure that all vehicles have the following:
    1.1. Audible alert to other road users to the planned movement of the vehicle when the vehicle's indicators are in operation.
    1.2. Prominent signage at the rear of the vehicle to warn cyclists of the dangers of passing the vehicle on the inside.
    1.3. Properly adjusted class VI mirror/s or Fresnel lens to eliminate the near side blind spot.
    1.4. Side under run guards.
2. Driver training
    2.1. Drivers must be trained on vulnerable road user safety through an approved course and hold a current valid Certificate of Competence.
    2.2. Drivers must have a valid driving licence and be legally able to drive the vehicle.
3. Scheme membership: Submit evidence of registration with and accreditation to the Fleet Operator Recognition Scheme (FORS)
4. Level of accreditation: Bronze
5. Submittal date: Within one week of request

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.
3. Submit: two copies

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.

250 Monitoring

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

260 Site meetings

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: On site
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): Contract Administrator

265 Contractor's progress report

1. General: Submit a progress report at least 48 hours before the site meeting.
2. Content: Notwithstanding the Contractor's obligations under the Contract the report must include:
   - 2.1. A progress statement by reference to the master programme for the Works.
   - 2.2. Details of any matters materially affecting the regular progress of the Works.
   - 2.3. Subcontractors' and suppliers' progress reports.
   - 2.4. Any requirements for further drawings or details or instructions to fulfil any obligations under the Conditions of Contract.

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): Three 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. Details of any adjustments to be made to the programme for the Works.
   - 2.2. 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.

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. 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.

140 Evidence of Compliance

1. Proprietary products: Retain on site evidence that the proprietary product specified has been supplied.
2. Performance specification: Submit evidence of compliance, including test reports indicating:
   - 2.1. Properties tested.
   - 2.2. Pass/ fail criteria.
   - 2.3. Test methods and procedures.
   - 2.4. Test results.
   - 2.5. Identity of testing agency.
   - 2.6. Test dates and times.
   - 2.7. Identities of witnesses.
   - 2.8. Analysis of results.

160 Related work

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

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.
2. Other: Do not use until:
   - 2.1. Evidence of suitability is provided.
   - 2.2. Tested to BS EN 1008 if instructed.

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

320 Setting out

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

330 Appearance and fit

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

340 Critical dimensions

1. Critical dimensions: Set out and construct the Works to ensure compliance with the tolerances stated.

360 Record drawings

1. Site setting out drawing: Record details of all grid lines, setting-out stations, benchmarks and profiles. Retain on site throughout the Contract and hand over on completion.

Services generally

410 Services regulations

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

420 Water regulations/ byelaws notification

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

430 Water regulations/ byelaws contractor's certificate

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

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

510 Supervision

1. General: In addition to the constant management and supervision of the Works provided by the Contractor's person in charge, all significant types of work must be under the close control of competent trade supervisors to ensure maintenance of satisfactory quality and progress.
2. Evidence: Submit, including details of the person proposed, their relevant skills training and knowledge; practical experience; qualifications; membership or registration with professional bodies; employment history, work related assessments and management structure.
3. Submittal date: One week before start on site
4. Replacement: Give maximum possible notice before changing person in charge or site agent.

520 Coordination of engineering services

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

530 Overtime working

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

540 Defects in existing work

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.

570 Air permeability

1. Testing organization: UKAS accredited and registered with the Air Tightness Testing and Measurement Association (ATTMA) or the Independent Air Tightness Testing Scheme (iATS).
2. Method
   - 2.1. Pressure test in accordance with BS EN ISO 9972.
3. Standard
   - 3.1. Design airtightness value (maximum): 5 $m^3/(h.m^2)$.
4. Results
   - 4.1. Content: Include test results and all supporting data.
   - 4.2. Copies: Required for building control inspection and inclusion in building manual.
   - 4.3. Electronic deposit: Through the ATTMA lodgement database
   - 4.4. Additional copies: Provide on request.

580 Continuity of thermal insulation

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

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 Contract Administrator.
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: See drawing 2220/40

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.

140 Construction phase health and safety plan

1. Submission: Present to the employer/ client no later than TWO weeks before commencement.
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: principal church building and presbytery building.
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.

190 Occupier's rules and regulations

1. Compliance: Conform to the occupier's rules and regulations affecting the site. All to be discussed and agreed prior to commencement.

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

310 Explosives

1. Use: Not permitted.

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. Noise levels from the Works: Maximum level: 85 dB(A) when measured from site boundary.
3. Equipment: Fit compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.
4. Restrictions: Do not use:
    - 4.1. Percussion tools and other noisy appliances without consent during the hours of 6pm and 8am weekdays and weekends without prior agreement.
    - 4.2. 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.

460 Powder actuated fixing systems

1. Use: Not permitted.

470 Invasive species

1. General: Prevent the spread of species (e.g. plants or animals) that may adversely affect the site or works economically, environmentally or ecologically.
2. Duty: Report immediately any suspected invasive species discovered during execution of the works.
    2.1. Do not disturb.
    2.2. Agree methods for safe eradication or removal.

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.

530 Existing topsoil/ subsoil

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

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.
2. Special requirements: see drawing 2220/40 & 2220/41

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.

600 Existing furniture, fittings and equipment

1. Protection: Prevent damage or move as necessary to enable the Works to be executed. Reinstate in original positions.

625 Adjoining property restrictions

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

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

A36
Facilities/ temporary work/ services

Generally

110 Spoil heaps, temporary works and services

1. Location: Give notice and details of intended siting.
2. Maintenance: Alter, adapt and move as necessary. Remove when no longer required and make good.

Accommodation

210 Room for meetings

1. Facilities: Provide suitable temporary accommodation for site meetings, adequately heated and lit. The room may be part of the Contractor's own site offices.

220 Site Accommodation

1. Purpose: Employer's site representative
2. Facilities: Provide and obtain approval of suitable lockable temporary accommodation and facilities as follows:
   - 2.1. Status: May be part of the contractor's own accommodation
   - 2.2. Location: to be agreed prior to commencement

230 Temporary accommodation

1. Proposals for temporary accommodation and storage for the Works: Submit two weeks prior to starting on site.
2. Details to be included: Type of accommodation and storage, its siting and the programme for site installation and removal.

260 Sanitary accommodation

1. Requirement: Provide sanitary accommodation for the Employer/ Purchaser, and other members of the consultant team, either separate or shared with the Contractor's supervisory staff. Maintain in clean condition and provide all consumables.

Temporary works

340 Name boards/ advertisements

1. Name boards/ advertisements: permitted.

Services and facilities

410 Lighting

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

420 Lighting and power

1. Supply: Electricity from the existing mains may be used for the Works as follows:
    1.1. Metering: Free of charge
    1.2. Point of supply: As Existing
    1.3. Available capacity: Contractor to determine at time of tender
    1.4. Frequency: Contractor to determine at time of tender
    1.5. Phase: Contractor to determine at time of tender
    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. Location of supply point: As existing
2. Continuity: No responsibility will be accepted for the consequences of failure or restriction in supply.

440 Mobile telephones

1. Direct communication: As soon as practicable after the start on site:
    1.1. provide the Contractor's person in charge with a mobile telephone.
    1.2. pay all charges reasonably incurred.

470 E-mail and internet facility

1. General: As soon as practicable after the start on site provide a suitable e-mail facility on site, with a separate dedicated telephone line, for the use of the Contractor, Subcontractors and other members of the project team.
2. Use on behalf of Employer: Allow for the cost of a reasonable number of transmissions made by other members of the project team.

520 Use of permanent heating system

1. Permanent heating installation: May be used for drying out the Works/ services and controlling temperature and humidity levels.
2. Installation: If used:
    2.1. Take responsibility for operation, maintenance and remedial work.
    2.2. Arrange supervision by and indemnification of the appropriate Subcontractors.
    2.3. Pay costs arising.

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: 6
   1.2. High-visibility waistcoats to BS EN ISO 20471 Class 2. Number required: 6.
   1.3. Disposable respirators to BS EN 149.FFP1S.
   1.4. Eye protection to BS EN ISO 16321-1 and BS EN ISO 16321-3.
   1.5. Ear protection - muffs to BS EN 352-1, plugs to BS EN 352-2
   1.6. Hand protection - to BS EN 388, 407, 420 or 511, as appropriate.

Ω End of Section

A37
Operation/ maintenance of the finished works

Generally

110 The building manual

1. Purpose: The manual is to be a comprehensive information source and guide for owners and users of the completed works. It should provide an overview of the main design principles and describe key components and systems to enable proper understanding, efficient and safe operation and maintenance.
2. Scope
   2.1. Part 1: General: content as clause 120.
   2.2. Part 2: Fabric: content as clause 130.
   2.3. Part 3: Services: content as clause 140.
   2.4. Part 4: The Health and Safety File: content as clause 150.
   2.5. Part 5: Building User Guide: content as clause 151.
3. Responsibility: The building manual is to be produced by the contractor and must be complete no later than 7 days before completion.
4. Compilation
   4.1. Prepare all information for contractor designed or performance specified work including as-built drawings.
   4.2. Obtain or prepare all other information to be included in the manual.
5. Reviewing the manual: Submit a complete draft. Amend in the light of any comments and resubmit. Do not proceed with production of the final copies until authorized.
6. Final copies of the manual
   6.1. Number of copies: 2
   6.2. Format: paper and digital
   6.3. Latest date for submission: 1 weeks before the date for completion stated in the contract.

115 The Health and Safety File

1. Responsibility: the contractor
2. Content: Obtain and provide the following information: Contractor designed and performance specified work: Obtain or prepare details of construction methods and materials, general maintenance instructions and as-built drawings. Other information: Obtain or prepare details of utilities and services, materials hazards, access requirements/restrictions and maintenance and decommissioning instructions.
3. Format: Paper (one copy) and Digital (one copy)
4. Delivery to: CA By (date): 7 days before completion.

155 Content of the building manual

1. General: Details of the property, the parties, fire safety strategy, operational requirements and constraints of a general nature.
2. Building Fabric: Design criteria, maintenance details, product details, and environmental and trafficking conditions
3. Building Services: Description and operation of systems, diagrammatic drawings, record drawings, identification of services, product details, equipment settings, maintenance schedules, consumable items, spares and emergency procedures
4. Documentation: Guarantees, warranties, maintenance agreements, test certificates and reports

160 Presentation of building manual

1. Format: A4 size, plastics covered, loose leaf, four ring binders with hard covers, each indexed, divided and appropriately cover titled.
2. Selected drawings needed to illustrate or locate items mentioned in the Manual: Where larger than A4, to be folded and accommodated in the binders so that they may be unfolded without being detached from the rings.
3. As-built drawings: The main sets may form annexes to the Manual.

Ω End of Section

Section 2
SPECIFICATION
SECTION C-Z – MATERIALS & WORKMANSHIP
PART 2i – C-Z STANDARD NBS CLAUSES
PART 2ii – C-Z CONSERVATION CLAUSES
TENDER ISSUE – Dec24

2220 Malmesbury,
St Aldhelms

Chedburn Codd

St. Aldhelm's Roman Catholic Church

St Aldhelm's Church – Parish Hall

2220-Malmesbury Work Sections C-Z

Part i

Contents

C20
Demolition

To be read with preliminaries/ general conditions.

5 Desk study/ survey

1. Scope: Before starting deconstruction/ demolition work, examine available information, and carry out a survey of: The structure or structures to be deconstructed/ demolished.
2. Report and method statements: Submit, describing:
    2.1. Form, condition and details of the structure or structures, the site and the surrounding area.
        2.1.1. Extent: As drawing 2220/41
    2.2. Type, location and condition of adjoining or surrounding premises that might be adversely affected by removal of the structure or structures or by noise, vibration and dust generated during deconstruction or demolition.
    2.3. Identity and location of services above and below ground, including those required for the contractor's use, and arrangements for their disconnection and removal.
    2.4. Form and location of flammable, toxic or hazardous materials, including lead-based paint, and proposed methods for their removal and disposal.
    2.5. Form and location of materials identified for reuse or recycling, and proposed methods for removal and temporary storage.
    2.6. Proposed programme of work, including sequence and methods of deconstruction or demolition.
    2.7. Arrangements for protection of personnel and the general public, including exclusion of unauthorized persons.
    2.8. Arrangements for control of site transport and traffic.
3. Format of report: written, A4, pdf issue

10 Extent of deconstruction/ demolition

1. General: Subject to retention requirements specified elsewhere, deconstruct/ demolish structures down to Foundation level. Break up and dig out foundations.

20 Features to be retained

1. General: Keep in place and protect the following: see drawing 2220/41.

30 Services disconnection arranged by contractor

1. General: Refer to BJP Specification and drawings
2. Arrange with the appropriate authorities and responsible private organizations for disconnection of services, and removal of fittings and equipment owned by those authorities prior to starting deconstruction or demolition

32 Disconnection of drains

1. General: Locate, disconnect and seal disused drain connections. Agree where drains are to be sealed
2. Sealing: Permanent, and within the site

35 Live foul and surface water drains

1. Drains and associated manholes, inspection chambers, gullies, vent pipes and fittings: Protect and maintain normal flow during deconstruction or demolition

45 Services to be retained

1. Damage to services: Give notice, and notify relevant service authorities and/ or owner/ occupier regarding damage arising from deconstruction or demolition
2. Repairs to services: Complete as directed, and to the satisfaction of the service authority or owner

50 Workmanship

1. Standard: Demolish structures in accordance with BS 6187.
2. Operatives
   - 2.1. Appropriately skilled and experienced for the type of work.
   - 2.2. Holding, or in training to obtain, relevant Construction Skills certification of competence.
3. Site staff responsible for supervision and control of work: Experienced in the assessment of risks involved and methods of deconstruction and demolition to be used.

55 Site hazards

1. Precautions: Prevent fire or explosion caused by gas and vapour from tanks, pipes, etc.
2. Dust: Minimize airborne dust by periodically spraying deconstruction and demolition works with an appropriate wetting agent. Keep public roadways and footpaths clear of mud and debris
   - 2.1. Lead dust: Submit method statement for control, containment and clean-up regimes.
3. Site operatives and general public: Protect from health hazards associated with vibration, dangerous fumes and dust arising during the course of the works.

60 Adjoining property

1. Temporary support and protection: Provide. Maintain and alter, as necessary, as work proceeds. Do not leave unnecessary or unstable projections.
2. Defects: Report immediately on discovery.
3. Damage: Minimize disturbance. Repair promptly to ensure safety, stability, weather protection and security.
4. Support to foundations: Do not disturb.

65 Structures to be retained

1. Extent: Refer to drawing 2220/41
2. Parts which are to be kept in place: Protect. Give notice and notify service authority or owner of damage arising from the execution of the works.
3. Interface between retained structures and deconstruction or demolition: Cut away and strip out with care to minimize the amount of making good needed

70 Partly demolished structures

1. General: Leave in a stable condition, with adequate temporary support at each stage to prevent risk of uncontrolled collapse. Make secure outside working hours.
2. Temporary works: Prevent overloading due to debris.
3. Access: Prevent access by unauthorized persons.

71 Dangerous openings

1. General: Provide guarding at all times, including outside of working hours. Illuminate during hours of darkness.
2. Access: Prevent access by unauthorized persons.

75 Asbestos-containing materials – known occurrences

1. General: Materials containing asbestos are known to be present in: Refer to Site Asbestos R&D report.

76 Asbestos-containing materials – unknown occurrences

1. Discovery: Give notice immediately of suspected asbestos-containing materials when discovered during deconstruction and demolition work. Avoid disturbing such materials.
2. Removal: Submit statutory risk assessments and details of proposed methods for safe removal.

78 Unforeseen hazards

1. Discovery: Give notice immediately when hazards, such as unrecorded voids, tanks, chemicals, are discovered during deconstruction or demolition.
2. Removal: Submit details of proposed methods for filling, removal, etc.

85 Site condition at completion

1. Debris: Clear away and leave the site in a clean, tidy and secure condition.

86 Site surface at completion

1. Topography: As drawings

90 Contractor's property

1. Components and materials arising from the deconstruction and demolition work: Property of the contractor, except for designated items which remain the property of the employer
2. Action: Remove from site as work proceeds where not to be reused or recycled for site use

91 Employer's property

1. Components and materials to remain the property of the employer: Refer to drawings 2220/41

95 Recycled materials

1. Materials arising from deconstruction and demolition work: Can be recycled or reused elsewhere in the project, subject to compliance with the appropriate specification and in accordance with any site waste management plan.
2. Evidence of compliance: Submit full details and supporting documentation.
   2.1. Verification: Allow adequate time in programme for verification of compliance.

Ω End of Section

C30
Shoring/ facade retention

To be read with preliminaries/ general conditions.

110 Terms used in façade retention

1. Definitions: As CIRIA Report, C579, 'Retention of masonry façades – best practice guide', Glossary and as follows:
   1.1. Façade: Elevations that are to be kept in place, including external elevations, internal elevations and party walls listed as requiring support.
   1.2. Retention structure: The temporary or permanent façade retention structure.

120 Retention structure generally

1. Extent of façade: As drawing 2220/41
2. Nature of structure: Stone wall
3. Position of structure: As drawing 2220/41

130 Temporary propping/ scaffolding to retained wall

1. Description: Allow for kentledge scaffolding on the pavement to give the wall stability until the new masonry wall behind at each end is erected.
2. Structure: Scaffolding - submit proposals for structural engineers comment
3. Kentledge: Submit proposals
4. Connection to façade: Timber wall piece with cleats and needles at head of each shore - subject to structural engineers comment

180 Temporary works co-ordinator

1. Requirement: Appoint a suitably qualified and experienced temporary works coordinator as defined in BS 5975, section 7.
2. Responsibilities: To ensure:
   - 2.1. Safety of the works.
   - 2.2. Relevant features of the façade, whether known at the outset or discovered in the course of the work, are fully considered in design and construction of retention structure.
   - 2.3. Components of the design and detailing fit each other and the façade.
   - 2.4. Required actions are only undertaken when it is safe to do so, and are carried out under supervision in accordance with design and relevant standards.
   - 2.5. Liaison with the temporary works supervisors appointed by subcontractors.
3. Period of appointment: From commencement of Contract until permanent structure is complete.

System performance - Not Used

Products

430 Scaffolding and accessories

1. Standard: To BS EN 12811-1 and -2.
2. Protective coating for carbon steel tubes and fittings: Protect steelwork and prevent rust staining of façade and other permanent or retained works until the retention structure is dismantled.

Execution

600 Workmanship

1. Standard: To the designated code of practice and the falsework standard.
2. Operatives skill and experience: Appropriate for the type of work.
   - 2.1. Evidence: Submit prior to commencement.

640 Enabling work

1. Scope
   - 1.1. Before erection of retention structure
     - 1.1.1. Remove hazardous materials, as section C20.
     - 1.1.2. Other requirements: Refer to drawings 2220/40 & 2220/41

670 Unforeseen hazards

1. General: Give notice if unrecorded voids, flues, bonding timbers, services, etc. are discovered during erection of support systems.
2. Action: Submit proposals for methods for infill, making good, relocation of connections, etc. as required.

710 Retention structure maintenance

1. Visual inspection: Inspect daily for evidence of movement, distress or vandalism.
2. Detailed inspection and maintenance: Carry out at same intervals as monitoring, making good to ties, wedges, connections, weatherproofing, corrosion protection, etc. as necessary.
3. Accidental loading: Protect structure from impact damage by vehicles, plant and site operations that system has not been designed to withstand.
4. General: Prevent access onto retention structure by unauthorized persons. Leave structure safe outside working hours.

Completion

910 Dismantling retention structure

1. Permanent connections: When complete between façade and new construction, give notice.
2. Disconnection and dismantling: Obtain permission before proceeding.

930 Completion condition survey

1. Timing: After disconnection of support systems, survey and record the state of façade.
2. Defects: Ensure that defects caused by or due to retention structure have been remedied.
3. Record: Submit for agreement.

Ω End of Section

D20
Excavating and filling

To be read with preliminaries/ general conditions.

23 Excavations adjacent to existing foundations

1. Prior to commencing excavation
    1.1. Excavate trial pits adjacent to existing foundations to determine extent and formation levels.
    1.2. Allow for inspection of trial pits.
    1.3. Allow time for amendment of details if required.
        1.3.1. Time period: Five working days
2. Backfill material to new excavation: to be agreed with structural enginer

25 Inspecting formations

1. Give Notice: Make advance arrangements for inspection of formations for foundations and filling formations and service trenches.
    1.1. Notice (minimum): Three days
2. Preparation: Just before inspection remove the last 150 mm of excavation. Trim to required profiles and levels.
    2.1. Loose material: Remove

30 Recorded features

1. Recorded foundations, beds, drains, manholes, etc: Break out and seal drain ends
2. Contaminated earth: Remove and disinfect as required by Local Authority.

31 Unrecorded features

1. Give notice: If unrecorded foundations, beds, voids, basements, filling, tanks, pipes, cables, drains, manholes, watercourses, ditches, etc. not shown on the drawings are encountered.

50 Hazardous, aggressive or unstable materials

1. Generally: Do not import or use fill materials which would, either in themselves or in combination with other materials or groundwater, give rise to a health hazard, damage to building structures or instability in the filling, including material that is:
    1.1. Frozen or containing ice.
    1.2. Organic.
    1.3. Contaminated or noxious.
    1.4. Susceptible to spontaneous combustion.
    1.5. Likely to erode or decay and cause voids.
    1.6. With excessive moisture content, slurry, mud or from marshes or bogs.
    1.7. Clay of liquid limit exceeding 80 and/ or plasticity index exceeding 55.
    1.8. Unacceptable, class U2 as defined in the 'Specification for highway works', clause 601.

53 Water

1. Generally: Keep all excavations free from water until:
    1.1. Formations are covered.
    1.2. Below ground constructions are completed.
    1.3. Basement structures and retaining walls are able to resist leakage, water pressure and flotation.
2. Drainage: Form surfaces of excavations and fill to provide adequate falls.
3. Removal of water: Provide temporary drains, sumps and pumping as necessary. Do not pollute watercourses with silt laden water.

55 Placing fill

1. Surfaces of excavations and areas to be filled: Free from loose soil, topsoil, organic material, rubbish and standing water.
2. Freezing conditions: Do not use frozen materials or materials containing ice. Do not place fill on frozen surfaces. Remove material affected by frost. Replace and recompact if not damaged after thawing.
3. Adjacent structures, membranes and buried services
    3.1. Do not overload, destabilise or damage.
    3.2. Submit proposals for temporary support necessary to ensure stability during filling.
    3.3. Allow 14 days (minimum) before backfilling against in situ concrete structures.
4. Layers: Place so that only one type of material occurs in each layer.
5. Earthmoving equipment: Vary route to avoid rutting.

60 Backfilling around foundations

1. Under oversite concrete and pavings: Hardcore.
2. Under grassed or soil areas: Material excavated from the trench, laid and compacted in 300 mm maximum layers.

65 Hardcore filling

1. Fill: Granular material, free from excessive dust, well graded, all pieces less than 75 mm in any direction.
2. Permitted materials in any one layer.
    2.1. Permitted materials in any one layer
        2.1.1. Crushed rock (other than argillaceous rock) or quarry waste with not more binding material than is required to help hold the stone together.
        2.1.2. Crushed concrete, crushed brick or tile, free from plaster, timber and metal.
        2.1.3. Natural gravel.
    2.2. Natural sand.
3. Filling: Spread and level in 150 mm maximum layers. Thoroughly compact each layer.

75 Blinding

1. Surfaces to receive sheet overlays or concrete:
2. Blind with
    2.1. Concrete where shown on drawings; or
    2.2. Sand, fine gravel, or other approved fine material applied to fill interstices. Moisten as necessary before final rolling to provide a flat, closed, smooth surface.
3. Sand for blinding: To BS EN 12620, grade 0/4 or 0/2 (MP).

Ω End of Section

E05
In situ concrete construction generally

To be read with preliminaries/general conditions.

Refer to separate Mann Williams specification details .

Ω End of Section

F10
Brick/ block walling

Clauses

36 Concrete common blockwork

1. Blocks: To BS EN 771-3.
    1.1. Manufacturer: Tarmac
    1.2. Product reference: HH CELCON Standard
    1.3. Configuration: Group 1
    1.4. Compressive strength: 3.6 N/mm²
    1.5. Category: I
    1.6. Freeze/ thaw resistance: Suitable for exposed external use below dpc
    1.7. Thermal properties: Thermal conductivity: 0.13 W/mK
    1.8. Recycled content: None permitted
    1.9. Work sizes (length x width x height): 440 x 100 x 215 mm
        1.9.1. Tolerance category: D2
    1.10. Special shapes: None
    1.11. Additional requirements: None

2. Mortar: As section Z21.
    2.1. Standard: As section Z21.
    2.2. Mix: As section Z21.
3. Bond: Stretcher

45 Engineering brickwork

1. Bricks: To BS EN 771-1.
    1.1. Manufacturer: Contractor's choice
    1.2. Mean compressive strength: Greater than or equal to 125 N/mm²
    1.3. Category: I
    1.4. Water absorption: Equal to or less than 4.5%
    1.5. Freeze/ thaw category: F2.
    1.6. Active soluble salts content category: S2.
    1.7. Additional requirements: None
2. Mortar: As section Z21.
    2.1. Standard: To BS EN 998-2
    2.2. Mix: As section Z21.
    2.3. Additional requirements: None
3. Bond: Stretcher
4. Joints: Flush.

51 Basic workmanship

1. Bond where not specified: Half lap stretcher.
2. Mortar joints: Fill all vertical joints. Lay bricks, solid and cellular blocks on a full bed.
3. AAC block thin mortar adhesive and gypsum block adhesive joints: Fill vertical joints. Lay blocks on a full bed.
4. Clay block joints
    4.1. Thin layer mortar: Lay blocks on a full bed.
    4.2. Interlocking perpends: Butted.
5. Quoins and advance work: Rack back.
6. Locations for equal levelling of cavity wall leaves
    6.1. Every course containing vertical twist type ties or other rigid ties.
    6.2. Every third tie course for double triangle/ butterfly ties.
    6.3. Courses in which lintels are to be bedded.
7. Lift height (maximum) for walling using cement gauged or hydraulic lime mortar: 1.2 m above any other part of work at any time.
8. Daily lift height (maximum) for walling using cement gauged or hydraulic lime mortar: 1.5 m for any one leaf.
9. Lift height (maximum) for walling using thin layer mortar: 1.3 m above any other part of work at any time.

55 Facework

1. Commencement of facework: Not less than 150 mm below finished level of adjoining ground or external works level.
2. Brick/ block selection: Do not use units with damaged faces or arrises.
3. Cut masonry units: Where cut faces or edges are exposed cut with table masonry saw.
4. Coursing brickwork and concrete blockwork: Evenly spaced using gauge rods. To produce satisfactory junctions and joints with built-in elements and components.

60 Alterations/ Extensions

1. Coursing: Line up with existing work.
2. Block bonding new walls to existing: Unless agreed otherwise cut pocket requirements as follows:
   - 2.1. Width: Full thickness of new wall.
   - 2.2. Depth (minimum): 100 mm.
   - 2.3. Vertical spacing: As follows:
   - 2.4. Brick to brick: 4 courses high at 8 course centres.
   - 2.5. Block to block: Every other course.
   - 2.6. Pocket joints: Fully filled with mortar.
3. New and existing facework in the same plane: Bonded together at every course to achieve continuity of bond and coursing.
4. Support of existing work: Fully consolidate joint above inserted lintel or masonry with semidry mortar to support existing structure.

66 Fire stopping

1. Avoidance of fire and smoke penetration: Fit tightly between cavity barriers and masonry. Leave no gaps.

95 Repointing

1. Preparation: Cut out joints to form a rectangular recess of 15-20 mm depth. Clean and dampen joints sufficiently to control suction.
2. Joint profile: Approved
3. Mortar: As section Z21.

Ω End of Section

F20
Natural stone rubble walling

To be read with preliminaries/ general conditions.

10 Rubble walling

1. Description: External Walls
2. Stone: To BS EN 771-6
   - 2.1. Name (traditional): Cotswold
   - 2.2. Supplier: Cotswold Natural Stone Group
     - 2.2.1. Product reference: Grange Hill Cream - Random Chopped
   - 2.3. Size: 100mm thickness
   - 2.4. Quality: Seasoned and free from cracks, vents, fissures or other defects deleterious to strength, durability or appearance.

2.5. Additional requirements: Quoins - Bathstone Plain
Wall Copings - Bathstone 500x75mm

3. Mortar: As section Z21.
   3.1. Standard: To BS EN 998-2
4. Joints: Flush; brushed

20 Laying generally

1. Absorbent stones: Dampen in warm weather to reduce suction.
2. Mortar joints
   2.1. Laying: Full bed of mortar with all joints and voids filled.
   2.2. Appearance: Neat and consistent.
3. Natural bed of stones: Appropriate to properties of stones and positions in walling.
4. Appearance and bonding: Consistent overall appearance, good bond, and satisfactory junctions and joints with built-in elements and components.
   4.1. Random walling: Avoid long continuous vertical joints.
   4.2. Quoins and jambs: Large stones dressed to a regular shape.
5. Cleanliness: Keep facework clean.

25 Walling below ground level

1. Extent of facework below finished level of adjoining ground or external works (minimum): 150 mm.

30 Cavity walls

1. Regularity: Dress stones to give consistent leaf thickness and maintain full cavity width.

40 Brushed finish to joints

1. General: After the initial set has taken place, brush joints to remove laitance/ excess fines and give a coarse texture.

Ω End of Section

F30
Accessories/ sundry items for brick/ block/ stone walling

To be read with preliminaries/ general conditions.

5 Cavities

1. Concrete fill to base of cavity:
2. Concrete generally: To BS EN 206 and BS 8500-2.
3. Concrete type: To BS EN 206-1 and BS8500-2
   3.1. Workability: High.
4. Extent: Maintain 75 mm between top of fill and external ground level and a minimum of 225 mm between top of fill and ground level dpc.
5. Placement: Compact to eliminate voids.
6. Cleanliness: Keep cavity faces, ties and dpcs free from mortar and debris.

6 Cleanliness

1. Cavity base and faces, ties, insulation and exposed dpcs: Free from mortar and debris.

7 Perpend joint weep holes

1. Form: Open clear perpend joint.
2. Locations: Through outer leaf, immediately above base of cavity, at cavity trays, stepped dpcs and over openings. 75 mm above top of cavity fill at base of cavity.
3. Provision: At not greater than 1000 mm centres and not less than two over openings.

12 Polyisocyanurate (PIR) foam boards

1. Manufacturer: Kingspan Insulation
   1.1. Contact details
      1.1.1. Address: Kingspan Insulation Ltd
      Pembridge
      Leominster
      Herefordshire
      United Kingdom
      HR6 9LA
      1.1.2. Telephone: +44 (0)1544 388601
      1.1.3. Web: https://www.kingspan.com/gb/en-gb
      1.1.4. Email: info@kingspaninsulation.co.uk
   1.2. Product reference: Kingspan Kooltherm K108 Cavity Board (Kingspan Kooltherm K108 Cavity Board - 120 mm)
2. Standard: To BS EN 13166.
3. Third-party certification: British Board of Agrément (BBA) certification.
4. Fire performance: Euroclass RtF F to BS EN 13501-1:2018.
5. Thermal conductivity (maximum): 0.019 W/m·K.
6. Compressive strength (minimum) at 10% compression: 100 kPa.
7. Cross section: Uniform thickness.
8. Thickness: 120 mm.
9. Face size (length x width): 1200 x 450 mm.
10. Recycled content: 0% (minimum) to BS EN ISO 14021.
11. Edges: Square.
12. Facing: Low emissivity composite foil.
13. Core: Rigid thermoset fibre-free phenolic insulant core.

17 Ventilation ducts in external walling

1. Manufacturer: Contractor's choice
2. Placement: Across cavity, sloping away from inner leaf. Full mortar joints to seal cavity.
3. Protection from water penetration to inner leaf: Where barrier is not integral to duct, form stepped dpc cavity tray with stop ends above duct, extending 150 mm on each side.

18 Cavity closers

1. Manufacturer: Contractor's choice

25 Cavity wall ties used with partial fill insulation

1. Description: For cavity walls
2. Standard: To BS EN 845-1.
   2.1. Type: 2 (Masonry general purpose)

3. Manufacturer: Contractor's choice
4. Sizes: To suit wall construction and use of SureCav
5. Embedment length (minimum): 50 mm
6. Movement: Tolerant
7. Tie-mounted insulation retaining clips: As recommended by the manufacturer.

33 Fixing ties in masonry cavity walls with partial fill cavity insulation

1. Embedment in mortar beds (minimum): 50 mm.
2. Placement: Sloping downwards towards outer leaf without bending. Drip centred in the cavity and pointing downwards.
3. Spacing: Evenly spaced in non-staggered horizontal and vertical rows:
   3.1. Horizontal centres: 600 mm
   3.2. Vertical centres: 400 mm
4. Provision of additional ties: Within 225 mm of reveals of unbonded openings and at the vertical reveals of unsupported masonry At not more than 300 mm centres vertically.

39 Wall starters/ connectors

1. Refer to Structural Engineers details

48 Damp-proof course

1. Description:
2. Manufacturer: Newton
   2.1. Product reference: Newton preapplied Hyrobond - see drawings

52 Site-formed flexible sheet cavity trays

1. Manufacturer: Contractor's choice

56 Preformed cavity trays

1. Manufacturer: Contractor's choice

62 Site-formed dpc/ cavity tray junctions/ stop ends

1. Three dimensional changes in shape: Form to provide a free draining and watertight installation.
2. Alternative use of preformed cloaks/ stop ends: Submit proposals.

66 Installation of horizontal dpcs

1. Placement: In continuous lengths on full even bed of fresh mortar, with 100 mm laps at joints and full laps at angles.
2. Width: At least full width of masonry leaf. Edges of dpc not covered with mortar or projecting into cavity.
3. Overlying construction: Immediately cover with full even bed of mortar to receive next masonry course.
4. Overall finished joint thickness: As close to normal as practicable.
5. Ground level dpcs joint with damp-proof membrane: Continuous and effectively sealed.
6. Low level dpcs in external walls: Install not less than 150 mm above adjoining finished ground level.
7. Sill dpcs form and placement: In one piece and turned up at the back when the sill is in contact with inner leaf.
8. Dpcs crossing cavity: Provide support to prevent sagging.

68 Sealing of dpcs

1. Description: GENERALLY
2. Overlaps and junctions: Seal with Adhesive recommended by dpc manufacturer.

74 Installation of vertical dpcs

1. Form: In one piece wherever possible.
   1.1. Joints: Upper part overlapping lower not less than 100 mm.
2. Dpcs to jambs of openings: Fully lap behind cavity tray/ lintel at head and over horizontal dpc at sill. Project not less than 25 mm into cavity and maintain full contact with frames.
3. Fixing of jamb dpcs to back of built-in timber frames: Secure using galvanized clout nails or staples.

75 Installation of site-formed cavity trays

1. Requirements to prevent downward ingress of water
   1.1. Profiles: To match those shown on drawings. Firmly secured.
   1.2. Joint treatment: Use continuous length wherever possible, otherwise lap at least 100 mm and seal to produce a free draining and watertight installation.
   1.3. Horizontal cavity trays: Support using cavity closer.
   1.4. Sloping cavity trays: Prevent sagging.
   1.5. Cleanliness: Free from debris and mortar droppings.

76 Movement joints with sealant

1. Joint preparation and sealant application: As section Z22.
2. Filler: Neoprene foam
   2.1. Placement: Build in as work proceeds ensuring no projections into cavities and to correct depth to receive sealant system.
3. Sealant: ISO 11600-F-20LM
   3.1. Colour: To match adjoining masonry

80 Coping units

1. Standard: To BS 5642-2.
2. Material: Bath limestone
3. Manufacturer: Cotswold Stone Company
4. Dimensions: As shown on drawings.
5. Finish: Smooth

81 Sills

1. Standard: To BS 5642-1.
2. Material: Bath Limestone
3. Manufacturer: Cotswold Stone Company
4. Dimensions: As shown on drawings.
5. Finish: Smooth
6. Joints: Flush.
7. Bedding one-piece sills: Leave bed joints open except under end bearings and masonry mullions. On completion, point to match adjacent work.

Ω End of Section

G10
Structural steel framing

Clauses

Refer to separate Mann Williams specification details .

65 Shop priming for Fire protection

1. Description: Refer to section M61

Ω End of Section

G12
Isolated structural metal members

Clauses

Refer to separate Mann Williams specification details .

Ω End of Section

G20
Carpentry/ timber-framing/ first fixing

Clauses

2 Timber procurement

1. Timber (including timber for wood-based products): Obtained from well-managed forests/ 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.

5 Structural softwood

1. Description: FOR STRUCTURAL USE GENERALLY
2. Grading standard: To the appropriate BS EN 14081-1-compliant standard.
   2.1. Grade: GS to BS 4978
3. Strength class to BS EN 338: as shown on drawings
4. Treatment: Organic solvent impregnation to NBS section Z12 and Wood Protection Association Commodity Specification C8, service life: 40 years

10 Ungraded softwood

1. Description: FOR INTERNAL NONSTRUCTURAL 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: CCA impregnation to NBS section Z12 and Wood Protection Association Commodity Specification C5, service life: 40 years

12 Wood trim

1. Description: for painted joinery only
2. Species: European whitewood
3. Standard: To BS 1186-3.
   3.1. Class: 2
4. Treatment: sealed as section M60
5. Fixing: Two 50 mm lost head nails to each support, glued or as specified on drawings

15 Plywood

1. Standard: To an approved national standard.
2. Service class to BS EN 1995-1-1: Class 2
3. Nominal thickness: 9 & 12mm
4. Appearance class to BS EN 635: II
5. Finish: Sanded

30 Selection and use of timber

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

32 Notches, holes and joints in timber

1. Notches and holes: Position in relation to knots or other defects so that the strength of members will not be reduced.
2. Scarf joints, finger joints and splice plates: Do not use without approval.

35 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.

40 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%.

43 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.
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. Tighten as necessary.

50 Additional supports

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

55 Joists generally

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

60 Joists on hangers

1. Hangers: Bedded directly on and hard against supporting construction. Do not use packs or bed on mortar.
2. Joists: Cut to leave not more than 6 mm gap at each end. Rebated to lie flush with underside of hangers.
3. Fixing to hangers: A nail in every hole.

70 Trimming openings

1. Trimmers and trimming joists: Not less than 25 mm wider than general joists.

95 Strutting to floor joists

1. Type: One of the following:
   1.1. Herringbone strutting: At least 38 x 38 mm softwood.
   1.2. Solid strutting: At least 38 mm thick softwood and at least three quarters of joist depth.
2. Fixing: Between joists as follows:
   2.1. Joist spans of 2.5 to 4.5 m: One row at centre span.
   2.2. Joist spans over 4.5 m: Two rows equally spaced.
   2.3. Not projecting beyond top and bottom edges of joists.
3. Outer joists: Blocked solidly to perimeter walls.

98 Eaves soffit ventilation

1. Soffit boards: Fixed to leave a continuous ventilation opening not less than 25 mm wide for full length of eaves.
2. Insect mesh: 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 Natural Roof Slating

1. Contact details
   1.1. Address: 52 Grosvenor Gardens
   London
   London
   United Kingdom
   SW1W 0AU
   1.2. Telephone: +44 (0) 20 3318 4455

1.3. Web: https://www.cupapizarras.com/uk
1.4. Email: uk@cupapizarras.com
2. Description: Main pitched roof slopes and dormer
3. Substrate: Timber rafters and battens
4. Pitch: 43°
5. Underlay: Proctor Air Breathable Roof Membrane
5.1. Direction: Parallel to eaves.
5.2. Head-lap (minimum): 150 mm
6. Counter battens
6.1. Size: 38 x 25 mm
6.2. Fixing: 65 x 3.35 mm galvanized annular ring shank nails
7. Battens
7.1. Size: 38 x 25 mm
7.2. Fixing: 65 x 3.35 mm galvanized annular ring shank nails
8. Slates
8.1. Supplier: Cupa Pizarras
8.2. Product reference: Natural Slate - CUPA 12 - Dark Grey Slate
8.3. Slate size
8.3.1. Length (minimum): 500 mm.
8.3.2. Width (minimum): 250 mm.
8.4. Standards
8.4.1. Product specification: To BS EN 12326.
8.5. Properties
8.5.1. Type: Normal.
8.5.2. Water absorption: 0.16% Code W1.
8.5.3. Freeze-thaw resistance: <0.6%.
8.5.4. Thermal cycle test: Code T1.
8.5.5. Sulfur dioxide exposure test: Code S1.
8.5.6. Non-carbonate carbon content (maximum): 0.23%.
8.6. Standards methods of test: To BS EN 12326.
8.7. Characteristic modulus of rupture (transverse): 56 MPa.
8.8. Characteristic modulus of rupture (longitudinal): 57 MPa.
8.9. Selection: R EXCELLENCE.

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.

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.

42 Fire separating walls

1. Separating walls: Completely fill space between top of wall and underside of slates with mineral wool quilt to provide fire-stopping.
2. Boxed eaves: Completely seal air paths in plane of separating wall with wire reinforced mineral wool, not less than 50 mm thick, fixed to rafters and carefully cut to shape fire-resisting board and quilt to provide fire-stopping.

47 Eaves

1. Ventilation components
   1.1. Manufacturer: Contractor's choice
2. Underlay support: Contractor's choice
   2.1. Continuous to prevent water retaining troughs.
3. Gutter: Dress underlay or underlay support tray to form drip into gutter.
4. Undercourse and first course slates: Fix with tails projecting 50 mm over gutter or to centre of gutter.

52 Bedded verges with bedded undercloak

1. Underlay: Carry 50 mm onto outer leaf of gable wall and bed on mortar.
2. Undercloak: Slates, sloping towards verge and projecting 38-50 mm beyond face of wall.
   2.1. Bedding: On mortar identical to that used in gable walling.
3. Slating battens: Carry onto undercloak and finish 100 mm from verge edge.
4. Verge slates: Bed flush with undercloak on 75 mm wide bed of mortar. Point with flush profile.

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.
   2.1. Valley width between slates: 150 mm

71 Top edge abutments

1. Underlay: Turn up not less than 100 mm at abutments.
2. Top slate courses: Fix close to abutments.

Ω End of Section

H71
Lead sheet fully supported roof coverings/ flashings

To be read with preliminaries/ general conditions.

15 Valley gutter linings to slate/ tile roofs

1. Sheet underlay: Building paper to BS 1521, Class A1
2. Lead
   2.1. Type: Rolled to BS EN 12588
   2.2. Thickness: Code 6
   2.3. Laying: Over and beyond tilting fillets. In lengths not more than 1500 mm.
3. Cross joints: Lapped not less than 200 mm.
4. Fixing: Welt edges. Nail top edge of each sheet. Dress bottom edge neatly into eaves gutter.

26 Ridge/ hip rolls to slate roofs

1. Core: Rounded timber.
   1.1. Size: 70 x 45 mm tapering to a flat base 30 mm wide.
   1.2. Fixing: To ridge/ hip board with brass or stainless steel countersunk screws at 600 mm centres.
2. Capping: Lead to be Code 8 (bossed around roll), in lengths not more than 2m Wings to extend not less than 150 mm on to roof.
   2.1. Laps in length: Not less than 150 mm for ridges, 100 mm for hips.
3. Fixing: Secure wings with copper or stainless steel clips at centres in accordance with LSA guidance

35 Cover flashings

1. Lead
   1.1. Type: Rolled to BS EN 12588
   1.2. Thickness: Code 6
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. Cover: Overlap to upstand not less than 75 mm.

3. Fixing

3.1. Top edge: Lead wedges into bed joint.

3.2. Bottom edge: Clips.

60 Materials and workmanship generally

1. Lead production method: Rolled, to BS EN 14783
2. Identification: Colour marked for thickness/ code, weight and type.
3. Workmanship standard: To BS 6915 and latest editions of 'Rolled lead sheet. The complete manual' published by the Lead Sheet Training Academy
4. Fabrication and fixing: To provide a secure, free draining and weathertight installation.
5. Marking out: Do not use scribers or other sharp instruments to mark out lead without approval.
6. Solder: Use only where specified.
7. Finished leadwork: Fully supported, adequately fixed to resist wind uplift but also able to accommodate thermal movement without distortion or stress.
8. Patination oil: Apply smear coating to all visible lead, evenly in one direction and in dry conditions.

62 Lead-welding

1. In situ lead-welding: Not permitted.

64 Sheet underlay

1. Manufacturer: Contractor's choice
2. Weight: 220 g/m²
3. Recycled content: 90% (minimum) to BS EN ISO 14021

75 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.

76 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.

2.3. Turn up at abutments.

3. Wood core rolls: Fixed over underlay.
4. Protection: Keep dry and cover with lead at the earliest opportunity.

78 Fixing lead sheet

1. Top edge: Secured with two rows of fixings, 25 and 50 mm from edge.
2. Fixings

2.1. Nails to timber substrates: Copper clout nails to BS1202-2 , or stainless steel (austenitic) clout nails to BS 1202-1.

2.1.1. Shank type: Annular ringed, helical threaded or serrated.

2.1.2. Length: Not less than 20 mm or equal to substrate thickness.

2.2. Screws to concrete or masonry substrates: Brass or stainless steel.

2.2.1. Diameter: Not less than 3.35 mm.

2.2.2. Length: Not less than 19 mm.

2.2.3. Washers and plastics plugs: Compatible with screws.

80 Clips

1. Material
   1.1. Lead clips: Cut from sheets of the same thickness/ code as sheet being secured.
   1.2. Copper clips: Cut from 0.70 mm thick sheet to BS EN 1172, temper R220 (soft) or R240 (half hard) depending on position, dipped in solder if exposed to view.
   1.3. Stainless steel: Cut from 0.38 mm sheet to BS EN 10088-1, grade 1.4301(304), terne coated if exposed to view.
2. Dimensions
   2.1. Width: 50 mm where not continuous.
   2.2. Length: To suit detail.
3. 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.
4. Fixing lead sheet: Welt clips around edges and turn over 25 mm.

96 Drips with splash laps

1. Underlap: Dress up full height of drip upstand.
   1.1. Fixing: Two rows of nails to lower level substrate. Seal over nails with a soldered or lead-welded dot.
2. Overlap: Dress over drip and form a 75 mm splash lap.
   2.1. Fixing: Lead clips lead-welded to underlap at bay centres.

98 Welted joints

1. Joint allowance: 50 mm overlap, 25 mm underlap.
2. Copper or stainless steel clips: Fix to substrate at 450 mm centres.
3. Overlap: Welt around underlap and clips and lightly dress down.

99 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

To be read with preliminaries/ general conditions.

10 Single layer sheet warm roof covering systems - Flat Roof areas

1. Substrate: Plywood deck
2. Roof covering system
   2.1. Manufacturer: Sika Limited

2.1.1. Contact details

2.1.1.1. Address: Watchmead
Welwyn Garden City
Hertfordshire
AL7 1BQ

2.1.1.2. Telephone: +44 (0)1707 394444

2.1.1.3. Web: https://www.sika.co.uk

2.1.1.4. Email: enquiries@uk.sika.com

2.1.2. Product reference: Sika® Sarnafil AT Single Ply Membrane (Mechanically Fixed Warm Roof System)

2.2. Preparation

2.2.1. Horizontal work: Sika® Primer 610 Spray.

2.2.2. Skirtings and vertical work: Sika® Primer 610 Spray.

2.3. Insulation

2.3.1. Type: Kingspan Kooltherm K107 (125mm)

2.4. Waterproof covering

2.4.1. Type: Sarnafil® AT-18.

2.4.2. Attachment: Sarnaweld Mechanically Fixed System (subject to Sika® specification).

2.5. Standard: To BS EN 13956.

2.6. Top surface colour: Window grey (~RAL 7040).

2.7. Colour: Bottom surface: Dark grey.

15 Roofing generally

1. Surfaces to be covered: Secure, clean, dry, smooth, free from frost, contaminants, voids and protrusions.
2. Preliminary work. Complete including:: Grading to correct falls.
3. Moisture content and stability of substrate: Must not impair integrity of roof.
4. Adverse weather: Do not lay membrane at temperatures below 5°C in high winds, wet or damp conditions, unless effective temporary cover is provided over working area.
5. Unfinished areas of roof: Keep dry and protect edges of laid membrane from wind action.
6. Completed coverings: Firmly attached, fully sealed, smooth, weatherproof and free-draining.

40 Laying warm deck roof insulation

1. Setting out
   1.1. Long edges: Fully supported and running at right angles to Structure.
   1.2. End edges: Adequately supported.
   1.3. Joints: Butted together.
   1.4. End joints: Staggered.
2. Completion: Boards must be in good condition, well-fitting and secure.

45 Mechanical fixing of waterproof membrane

1. Setting out: Perpendicular to the deck direction
2. Laying: Loose lay; do not wrinkle or stretch.
3. Installing fasteners: Use manufacturer's/ supplier's recommended methods and equipment.
4. Washers/ pressure plates/ bars
   4.1. Distance from fixed edge (minimum): 10 mm

4.2. Fixing: Flush with membrane.

5. Sheet overlaps: Extend beyond washers/ pressure plates by minimum: 100 mm.
6. Surface condition at completion: Fully sealed, smooth, weatherproof and free-draining.

60 Perimeter details

1. General: Secure membrane at roof edge conditions, changes of plane, curb flashings, upstands to roof lights, etc. with mechanical fasteners.
2. Upstands, edge trims, drips, kerbs, etc: Form flashings from waterproof membrane material
3. Roof membrane: Terminate and secure in accordance with manufacturer's/ supplier's recommendations.

Ω End of Section

K10
Gypsum board dry linings/ partitions/ ceilings

To be read with preliminaries/ general conditions.

15 Lining on timber Generally

1. Description: STUD PARTITIONS
2. Substrate: Studs at 400 mm centres
3. Fire performance
   3.1. Reaction to fire: 60mins protection required for compartmentalisation as shown on drawings
4. Linings: 15mm Grproc wallboard
   4.1. Fixing: Contractor's choice
5. Finishing: Skim coat plaster
   5.1. Primer/ Sealer: As recommended by board manufacturer for vapour control
6. Accessories:: 50mm Isover acoustic/fire insulation between studs as shown on drawings.
7. Accessories: Metal beads/ stops recommended by board manufacturer
8. Other requirements: Fire-stopping around service penetrations BJP Specification

25 Ceiling lining on timber

1. Substrate: Timber joists/rafters
2. Fire performance
   2.1. Reaction to fire: 60mins protection required for compartmentalisation as shown on drawings
3. Linings: 15mm Gyproc Soundbloc - as shown on drawings
   3.1. Fixing: Contractor's choice
4. Finishing: Skim coat plaster
   4.1. Primer/ Sealer: As recommended by board manufacturer for vapour control
5. Accessories: Metal beads/ stops recommended by the board manufacturer
6. Other requirements: Fire-stopping around services as BJP specification

45 Gypsum board wall lining systems Blockwork generally

1. Manufacturer: British Gypsum
   1.1. Contact details
      1.1.1. Address: East Leake
      Loughborough
      Leicestershire

United Kingdom
LE12 6JU

1.1.2. Telephone: +44 (0)844 800 1991

1.1.3. Web: https://www.british-gypsum.com

1.1.4. Email: bg.technical@saint-gobain.com

1.2. Product reference: DriLyner Dab - BASIC (F) (EN)

2. Support: Fixing method: Gyproc DriWall Adhesive.
3. Linings: Board side 1, Layer 1: Gyproc WallBoard 15mm.
4. Finish: The system should be finished using either one of our Thistle or ThistlePro plasters, or Gyproc jointing products. See the product range guides on the British Gypsum website for more information.
5. System accessories: Parge coat: Gyproc SoundCoat Plus. Thermal sealant: Gyproc DriWall Adhesive.
6. Execution: Please review details on the British Gypsum website at: https://www.british-gypsum.com/Specification/White-Book-Specification-Selector/wall-linings/DriLyner-Dab/BASIC-F-EN#details
7. Strength grade: Not Stated
8. Background: Background: Smooth concrete

Installation

60 Ceilings

1. Sequence: Fix boards to ceilings before installing dry lined walls and partitions.
2. Orientation of boards: Fix with bound edges at right angles to supports and with ends staggered in adjacent rows.
3. Two layer boarding: Stagger joints between layers.

65 Dry lining generally

1. General: Use fixing, jointing, sealing and finishing materials, components and installation methods recommended by board manufacturer.
2. Standard:
3. Gypsum plasterboard to BS EN 520.
4. Gypsum fibre board to BS EN 15283-2.
5. Evidence of compliance: Submit Declaration of Performance (DoP).
6. Cutting gypsum boards: Neatly and accurately without damaging core or tearing paper facing.
7. Cut edges: Minimize and position at internal angles wherever possible. Mask with bound edges of adjacent boards at external corners.
8. Two layer boarding: Stagger joints between layers.
9. Finishing: Neatly to give flush, smooth, flat surfaces free from bowing and abrupt changes of level.

67 Skim coat plaster finish

1. Plaster type: As recommended by board manufacturer

   1.1. Thickness: 2-3 mm.

2. Joints: Fill and tape except where coincident with metal beads.
3. Finish: Tight, matt, smooth surface with no hollows, abrupt changes of level or trowel marks.

69 Installing beads/ stops

1. Cutting: Neatly using mitres at return angles.

2. Fixing: Securely using longest possible lengths, plumb, square and true to line and level, ensuring full contact of wings with substrate.
3. Finishing: After joint compounds/ plasters have been applied, remove surplus material while still wet from surfaces of beads exposed to view.

70 Additional supports

1. Framing: Accurately position and securely fix to give full support to:
   1.1. Partition heads running parallel with, but offset from main structural supports.
   1.2. Fixtures, fittings and service outlets. Mark framing positions clearly and accurately on linings.
   1.3. Board edges and lining perimeters, as recommended by board manufacturer to suit type and performance of lining.

85 mineral wool insulation

1. Fitting insulation: Closely butted joints and no gaps. Use fasteners to prevent slumping or displacement.
2. Services
   2.1. Electrical cables overlaid by insulation: Size accordingly.
   2.2. Ceilings: Cut insulation around electrical fittings, etc.

87 Sealing gaps and air paths

1. Sealing: Apply sealant to perimeter abutments and around openings as a continuous bead with no gaps.
2. Application: To clean, dry and dust free surfaces as a continuous bead with no gaps.
   2.1. Gaps greater than 6mm between floor and underside of gypsum board: After sealing, fill with joint compound.

88 Fire-stopping at perimeters of dry lining systems

1. Material: Tightly packed mineral wool or intumescent mastic/ sealant.
2. Application: To perimeter abutments to provide a complete barrier to smoke and flame.

90 Seamless jointing

1. Cut edges of boards: Lightly sand to remove paper burrs.
2. Filling and taping: Fill joints, gaps and internal angles with jointing compound and cover with continuous lengths of tape, fully bedded.
3. Protection of edges/ corners: Reinforce external angles, stop ends, etc. with specified edge/ angle bead.
4. Finishing: Feather out jointing compound to give a flush, smooth, seamless surface.
5. Nail/ screw depressions and minor indents: Fill with jointing compound to give a flush surface.
6. Minor imperfections: Remove by light sanding.

91 Vertical joints

1. Joints: Centre on studs.
   1.1. Partitions: Stagger joints on opposite sides of studs.
   1.2. Two layer boarding: Stagger joints between layers.

92 Horizontal joints

1. Surfaces exposed to view: Horizontal joints not permitted. Seek instructions where height of partition/ lining exceeds maximum available length of board.
2. Two layer boarding: Stagger joints between layers by at least 600 mm.
3. Edges of boards: Support using additional framing.
    3.1. Two layer boarding: Support edges of outer layer.

94 Fixing gypsum board to timber

1. Fixing to timber: Securely at the following centres (maximum):
    1.1. Nails: 150 mm.
    1.2. Screws to partitions/ wall linings: 300 mm. Reduce to 200 mm at external angles.
    1.3. Screws to ceilings: 230 mm.
2. Position of nails/ screws from edges of boards (minimum)
    2.1. Bound edges: 10 mm.
    2.2. Cut/ unbound edges: 13 mm.
3. Position of nails/ screws from edges of timber supports (minimum): 6 mm.

95 Fixing gypsum board with adhesive dabs

1. Setting out boards: Accurately aligned and plumb.
2. Fixing to substrates: Securely using adhesive dabs.
3. Adhesive dab spacings for each board
    3.1. Horizontally: One row along top edge and one continuous dab along bottom edge.
    3.2. Vertically: One row along each edge and thereafter at intermediate spacings to suit size of board:
        3.2.1. 9.5 mm thick board, 1200 mm wide to have dab centres at 400 mm (min).
        3.2.2. 9.5 or 12.5 mm thick board, 900 mm wide to have dab centres at 450 mm (min).
        3.2.3. 12.5 mm thick board, 1200 mm wide to have dab centres at 600 mm (min).
4. Adhesive dab dimensions (width x length): At least 50-75 mm x 250 mm.
    4.1. Position of dabs from edges/ ends of boards (minimum): 25 mm.

Finishing

97 Level of dry lining across joints

1. Sudden irregularities: Not permitted.
2. Joint deviations: Measure from faces of adjacent boards using methods and straightedges (450 mm long with feet/ pads) to BS 8212, clause 3.3.5.
    2.1. Tapered edge joints
        2.1.1. Permissible deviation (maximum) across joints when measured with feet resting on boards: 3 mm.
    2.2. External angles
        2.2.1. Permissible deviation (maximum) for both faces: 4 mm.
    2.3. Internal angles
        2.3.1. Permissible deviation (maximum) for both faces: 5 mm.

Ω End of Section

K20
Timber board flooring/ sarking/ linings/ casings

To be read with preliminaries/ general conditions.

30 Timber board Acoustic slatted wood facing to main hall (east)

1. Substrate: Timber stud framework
2. Supplier:: WoodUpp acoustic lining
3. Product:: Akupanel: Classic oak, beige lining
4. Treatment
   - 4.1. Standard: To section Z12 and Wood Protection Association Commodity Specification:
   - 4.2. Type: WoodUpp Akupanel 600mm wide 22mm thk
5. Fixing: As manufacturers recommendations

Workmanship

41 Treated timber

1. Surfaces exposed by minor cutting and/ or drilling: Treat with two flood coats of a solution recommended for the purpose by main treatment solution manufacturer.

50 Fixing boards

1. Protection during and after installation: Keep boards dry, clean and undamaged.
2. Boards to be used internally: Do not install until building is weathertight.
3. Moisture content of timber supports at time of fixing boards: Not more than 18%.
4. Fixing: Fix boards securely to each support to give flat, true surface free from undulations, lipping, splits and protruding fasteners.
5. Timber movement: Position boards and fixings to prevent cupping, springing, excessive opening of joints and other defects.
6. Heading joints: Tightly butted, central over supports and at least two boards widths apart on any one support.
7. Edges: Plane off proud edges.
8. Exposed nail heads: Neatly punch below surface.

Ω End of Section

K21
Wood strip/ board fine flooring/ linings

To be read with preliminaries/ general conditions.

10 Wood laminate flooring

1. Substrate: Cement:sand screed with wood float finish
2. Strips/ Boards
   - 2.1. Manufacturer/ Supplier: Woodpecker
   - 2.2. Product reference: Chepstow Flaxen Oak
   - 2.3. Wood species (wearing layer): Oak
   - 2.4. Finish: Factory finished

60 Fixtures

1. Fixtures around which flooring is to be fitted: Installed before starting work specified in this section.

65 Workmanship generally

1. Moisture content of timber supports: 12-14%.
2. Methods of fixing and fasteners: As section Z20 where not specified.
3. Protection: Protect from dirt, stains and damage using suitable coverings and boards laid as the work proceeds.

80 Expansion provision

1. Expansion gaps
   1.1. Edges of flooring parallel to lie of boards: As manufacturers recommendations
   1.2. Ends of flooring: As manufacturers recommendations
2. Spacer blocks and debris: Removed before fixing skirtings.

85 Environmental conditions

1. General requirements prior to starting work specified in this section: Building weathertight, wet trades completed and affected areas dried out.

90 Finish to flooring

1. Exposed fastener heads: Punched or set below surface and filled with stopping to match wood.
2. Strips/ Boards: Sanded to give a clean, smooth and flush surface free from score marks.
3. Finish: hardwax oiled as supplied

Ω End of Section

L10
Windows/ rooflights/ screens/ louvres

To be read with preliminaries/ general conditions.

5 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.
   2.2. Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood-based products.

15 Fire rates window screens - drawing 2220/80

1. Standard: Fire and/ or smoke-rated windows to BS EN 14351-1, BS EN 16034 and BS 644
2. Manufacturer: Contractor's choice
3. Timber: Generally to BS EN 942.
   3.1. Species: Manufacturer's standard
   3.2. Appearance Class: J10 for glazing beads, drip mouldings and the like. J40 or better for all other members.
   3.3. Moisture content on delivery: 12-19%.

4. Preservative treatment: Organic solvent as section Z12 and WPA Commodity Specification C5; Desired service life 30 years
5. Finish as delivered: Prepared and primed as section M60
6. Fire performance
   - 6.1. Fire resistance: To BS EN 13501-2, EI 30 or better
   - 6.2. Reaction to fire: To BS EN 13501-1, Class B or better
7. Glazing details: see drawing 2220/80
8. Fixing: Screwed to timber framing
   - 8.1. Fastener spacing: When not pre-drilled or specified otherwise, position fasteners not more than 150 mm from ends of each jamb, adjacent to each hanging point of opening lights, and at maximum 450 mm centres.

33 Proprietary window units

1. Description: Triple glazed windows
2. Manufacturer: Velfac Windows
   - 2.1. Contact details
     - 2.1.1. Address: The Forum, Ground Floor
       Lancaster Way
       Ermine Business Park
       Huntingdon
       Cambridgeshire
       United Kingdom
       PE29 6XU
     - 2.1.2. Telephone: +44 (0)1480 759 510
     - 2.1.3. Web: https://velfac.co.uk/professionals/
     - 2.1.4. Email: sales-support@dovista.com
   - 2.2. Product reference: VELFAC 200 Panels
3. Third-party certification: Q-Mark product certification, BM TRADA certified, Danish window verification and indoor climate label.
4. Dimensions and configurations: As drawing/schedule
5. Product performance
   - 5.1. Fire performance
     - 5.1.1. Fire resistance: A2-s1, d0.
   - 5.2. Weather performance
     - 5.2.1. UK exposure category: To BS 6375-1, 1600 Pa.
     - 5.2.2. Air permeability: To BS EN 1026, 600 Pa (positive and negative pressure).
     - 5.2.3. Watertightness: To BS EN 1027, 600 Pa.
     - 5.2.4. Resistance to wind load: To BS EN 12211, 1600 Pa.
   - 5.3. Safety
     - 5.3.1. Security level: To PAS 24 and Secured by Design.
   - 5.4. Environmental
     - 5.4.1. Acoustic performance rating: Upanel value for: - Sandwich: 0.67 W/m²K - Ventilated: 0.15-0.32 W/m²K depending on board and insulation type and frame depth. - Shadow-box: 0.18-0.37 W/m²K depending on board and insulation type and frame depth. - Non-ventilated: 0.14-0.31 W/m²K depending on board and insulation type and frame depth. - Louvre: 0.27-0.68 W/m²K depending on insulation type and frame depth. - Rainscreen: 0.23-0.54 W/m²K depending on insulation type and frame depth.

5.5. Thermal

5.5.1. British Fenestration Rating Council Window Energy Rating: 0.92 Wm^2K whole window value

6. Frame

6.1. Profile: 54 mm aluminium external profile (or rainscreen: a fully formed aluminium sheet) coupled with timber internal mainframe.

6.2. Wood species: Manufacturer's standard.

6.3. Chain of custody: FSC.

6.4. Wood finishes: Water-based diffusion open timber surface treatment.

54 Louvres

1. Description: WOOD
2. Manufacturer: Solinear UK Ltd

2.1. Product reference: Solex Medera Timber Solar Shading

3. Material: Hardwood - Oak
4. Finish as delivered: Manufacturer's standard
5. Additional: Refer to Quote 11193-01 and drawings for further information
6. Accessories/ other requirements: Manufacturer's standard
7. Fixing: Manufacturer's standard

65 Priming/ sealing

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

75 Sealant joints

1. Sealant

1.1. Manufacturer: Contractors Choice

1.2. Colour: To be agreed with CA

1.3. Application: As section Z22 to prepared joints. Finish triangular fillets to a flat or slightly convex profile.

80 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.

10 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 Wood flush doors

1. Manufacturer: Contractor's choice- to be agreed with CA
2. Facings: Hardwood veneer - oak
3. Lippings: 8 mm hardwood exposed lippings to long edges
4. Finish as delivered: Full factory finish
5. Glazing/ infill details: Clear fire-resisting glazing - where required, see drawing 2220/73
6. Fire performance
   6.1. Fire resistance: 60mins - where required, see drawing 2220/73

50 Wood door frames

1. Manufacturer: Contractors Choice
2. Species: Oak
3. Preservative treatment: Required
4. Finish as delivered: Full paint system, as section M60
5. Perimeter seals: Fire and smoke seal where required - see drawing 2220/73
6. Fire performance
   6.1. Fire resistance: 60 mins where required - see drawing 2220/73
7. Fixing: Plugged and screwed, as section Z20
   7.1. 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.

70 Fire and smoke resistance

1. Requirement: Specified performance to be the minimum period attained when tested for integrity in accordance with BS 476-22, BS EN 1634-1 or BS EN 1634-3.
2. Components and assemblies will be marked to the relevant product standard and/ or third-party certification rating.

75 Fire-resisting/ smoke control doors/ doorsets

1. Gaps between frames and supporting construction: Filled as necessary in accordance with door/ doorset manufacturer's instructions.

80 Sealant joints

1. Sealant
   1.1. Manufacturer: To be agreed
      1.1.1. Product reference: To be agreed
   1.2. Colour: To suit situation and surrounding surfaces
   1.3. Application: As section Z42 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 Stairs

1. Description: Purpose made stairs between ground and first floor.
2. Component material, grade, finish as delivered
    2.1. Treads: Oak - refer to drawing 2220/72
        2.1.1. Colour of integral nosing: refer to drawing 2220/72
    2.2. Risers: refer to drawing 2220/72
    2.3. Strings: refer to drawing 2220/72
    2.4. Guarding: refer to drawing 2220/72
    2.5. Handrails: refer to drawing 2220/72
3. Workmanship
    3.1. Joinery: To section Z10
4. Reaction to fire: refer to drawing 2220/72

50 Purpose-made balustrades

1. Description: Purpose made stairs between ground and first floor.
2. Component material, grade and finish as delivered
    2.1. Guarding: toughened glass, Class 1 to BS EN 12600 - refer to drawing 2220/72
    2.2. Handrails: oak - refer to drawing 2220/72
3. Workmanship
    3.1. Joinery: To section Z10
    3.2. Metalwork: To section Z11

4. Reaction to fire: refer to drawing 2220/72
5. Fixing: refer to drawing 2220/72
    5.1. Centres: refer to drawing 2220/72

65 Purpose-made handrails

1. Description: Purpose made stairs between ground and first floor.
2. Component material, grade and finish as delivered
    2.1. Handrails: oak - refer to drawing 2220/72
    2.2. Brackets: refer to drawing 2220/72
3. Workmanship
    3.1. Joinery: To section Z10

75 Priming/ Sealing/ Painting

1. Surfaces inaccessible after assembly/ installation: Before fixing components, apply full protective/ decorative treatment/coating system.

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.

90 Inspection

1. Timing: Two weeks prior to date when contractor expects work to be practically complete
2. Period of notice (minimum): Five working days

Ω End of Section

L40
General glazing

To be read with preliminaries/ general conditions.

10 Workmanship and positioning generally

1. Glazing
    1.1. Generally: In accordance with BS 6262 series.
    1.2. Integrity: Wind and watertight under all conditions. Make full allowance for deflections and other movements.
2. Glass
    2.1. Standards: Generally to BS 952-1, BS 952-2 and to the relevant parts of:
        2.1.1. BS EN 572-9 for basic soda lime silicate glass.
        2.1.2. BS EN 1096-1 for coated glass.
        2.1.3. BS EN 12150-2 for thermally toughened soda lime silicate glass.
        2.1.4. BS EN 14449 for laminated glass.
    2.2. Quality: Free from scratches, bubbles and other defects.

2.3. Dimensional tolerances: Panes/ sheets to be accurately sized.

2.4. Material compatibility: Glass/ plastics, surround materials, sealers primers and paints/ clear finishes to be compatible. Comply with glazing/ sealant manufacturers' recommendations.

2.5. Protection: Keep materials dry until fixed. Protect insulating glass units and plastics glazing sheets from the sun and other heat sources.

30 Preparation

1. Surrounds, rebates, grooves and beads: Clean and prepare before installing glazing; ensure compliance with any certified installation requirements.

Ω End of Section

M10
Cement based levelling/ wearing screeds

To be read with preliminaries/ general conditions.

4 Cement:sand levelling screeds

1. Description: GROUND FLOOR
2. Substrate: In situ concrete slab
3. Screed construction: Fully bonded, as clause 30
4. Thickness
   4.1. Nominal: As shown on drawings
5. Mix
   5.1. Proportions (cement:sand): 1:3-4.5
6. Finish: Trowelled, as clause 75
   6.1. To receive: timber flooring/vinyl - as shown on drawings
7. Other requirements: Pipe ducts, as section P31

21 Suitability of substrates

1. General
   1.1. Suitable for specified levels and flatness/ regularity of finished surfaces. Consider permissible minimum and maximum thicknesses of screeds.
   1.2. Sound and free from significant cracks and gaps.
2. Concrete strength: In accordance with BS 8204-1, Table 2.
3. Cleanliness: Remove plaster, debris and dirt.
4. Moisture content: To suit screed type. New concrete slabs to receive fully or partially bonded construction must be dried out by exposure to the air for minimum six weeks.

22 Proprietary levelling/wearing screeds

1. General: Materials, mix proportions, mixing methods, minimum/ maximum thicknesses and workmanship must be in accordance with recommendations of screed manufacturer.
2. Standard: To BS EN 13813

30 Fully bonded construction

1. Preparation: Generally in accordance with BS 8204-1.
2. Removing mortar matrix: Shortly before laying screed, expose coarse aggregate over entire area of hardened base.
3. Texture of surface: Suitable to accept screed and achieve a full bond over complete area.

4. Bonding coat: As recommended by screed manufacturer

45 Aggregates and cements

1. Sand: To BS EN 13139.
   1.1. Grading limits: In accordance with BS 8204-1, Table B.1.
2. Coarse aggregates
   2.1. Standard: To BS EN 12620.
   2.2. Lightweight aggregates: In accordance with BS 8204-1, Annex A.
   2.3. Designation 4/10.
3. Cement
   3.1. Cement types: In accordance with BS 8204-1, clause 5.1.3.

47 Admixtures

1. Standards; In accordance with BS 8204-1, Table 1.
2. Calcium chloride: Do not use in admixtures.

50 Mixing

1. Water content: Minimum necessary to achieve full compaction, low enough to prevent excessive water being brought to surface during compaction..
2. Mixing: Mix materials thoroughly to uniform consistency in a suitable forced action mechanical mixer. Do not use a free fall drum type mixer.
3. Consistency: Use while sufficiently plastic for full compaction.
4. Ready-mixed retarded screed mortar: Use within working time and site temperatures recommended by manufacturer. Do not retemper.

52 Compaction

1. General: Compact thoroughly over entire area.
2. Screeds over 50 mm thick: Lay in two layers of equal thickness. Roughen surface of compacted lower layer then immediately lay upper layer.

55 Joints in levelling screeds

1. Laying screeds: Lay continuously using 'wet screeds' between strips or bays. Minimize defined joints.
2. Daywork joints: Form with vertical edge.

65 Strip movement joints

1. Description: FOR DOOR THRESHOLDS
2. Manufacturer: Contractor's choice
3. Installation: Set securely into screed to exact finished level of floor. Extend joints through to substrate.
   3.1. Secure fixing to substrate: To manufacturer's recommendation.

70 Smooth floated finish

1. Finish: Even texture with no ridges or steps.

75 Trowelled finish to levelling screeds

1. Floating: To an even texture with no ridges or steps.
2. Trowelling: To a uniform smooth surface, free from trowel marks and other blemishes, and suitable to receive specified flooring material.

85 Finishing generally

1. Timing: Carry out all finishing operations at optimum times in relation to setting and hardening of screed material.
2. Prohibited treatments to screed surfaces
   - 2.1. Wetting to assist surface working.
   - 2.2. Sprinkling cement.

90 Curing

1. General: Prevent premature drying. Immediately after laying, protect surface from wind, draughts and strong sunlight. As soon as screed has set sufficiently, closely cover with polyethylene sheeting.
2. Curing period (minimum): As soon as screed has set sufficiently, closely cover with polyethylene sheeting for period recommended by screed manufacturer.
3. Drying after curing: Allow screeds to dry gradually. Do not subject screeds to artificial drying conditions that will cause cracking or other shrinkage related problems.

Ω End of Section

M40
Stone/ concrete/ quarry/ ceramic tiling/ mosaic

To be read with preliminaries/ general conditions.

5 Tiling to walls - WCs & Kitchen

1. Tiles: Ceramic tiles
   - 1.1. Manufacturer/ Supplier: to be agreed
     - 1.1.1. Product reference: Metro Flat Wall Tiles
   - 1.2. Colour: White
   - 1.3. Finish: Glazed
   - 1.4. Size: Modular ??? x ??? mm
   - 1.5. Thickness: 200x100mm (Kitchen); 100x100mm (WCs splashbacks)
2. Bedding
   - 2.1. Walls: ready mix wall tile adhesive
   - 2.2. Adhesive to BS EN 12004-1: BAL - to be agreed
3. Joint width: 4 mm
4. Grout: to be agreed
5. Movement joints: None required

15 New backgrounds/ bases

1. Background drying times (minimum)
   - 1.1. Brick/block walls: six weeks.
   - 1.2. Rendering: two weeks.
   - 1.3. Gypsum plaster: four weeks.
2. Base drying times (minimum)
   - 2.1. Concrete slabs: six weeks.
   - 2.2. Cement:sand screeds: three weeks.

25 New plaster

1. Plaster: Dry, solidly bedded, free from dust and friable matter.
2. Plaster primer: Apply if recommended by adhesive manufacturer.

30 Fixing generally

1. Colour/ shade: Avoid unintended variations within tiles for use in each area/ room.
    1.1. Variegated tiles: Mix thoroughly.
2. Adhesive: Compatible with background/ base.
3. Cut tiles: Neat and accurate.
4. Fixing: Provide adhesion over entire background/ base and tile backs.
5. Final appearance: Before bedding material sets, make adjustments necessary to give true, regular appearance to tiles and joints.
6. Deviation of surface: Measure from underside of a 2 m straightedge with 3 mm thick feet placed anywhere on surface. The straightedge should not be obstructed by the tiles/ mosaics and no gap should be greater than 6 mm, i.e. a tolerance of
7. Surplus bedding material: Clean from joints and face of tiles/ mosaics.

32 Mortar bedding

1. Bedding mix
    1.1. Cement: Portland to BS EN 197-1, type CEM I/42.5.
    1.2. Sand for walls: Fine aggregate to BS EN 13139.
        1.2.1. Grading designation: 0/2 (CP or MP) category 2 fines.
    1.3. Sand for floors: Fine aggregate to BS EN 13139.
2. Grading designation: 0/4 (MP) category 1 fines and between 20-66% passing a 0.5 sieve.
3. Batching: Select from:
    3.1. Batch by weight.
    3.2. Batch by volume: Permitted on the basis of previously established weight:volume relationships of the particular materials. Use accurate gauge boxes. Allow for bulking of damp sand.
4. Mixing: Mix materials thoroughly to uniform consistence. Use a suitable forced action mechanical mixer. Do not use a free fall type mixer.
5. Application: At normal temperatures use within two hours. Do not use after initial set. Do not retemper.

35 Setting out

1. Joints: True to line, continuous and without steps.
    1.1. Joints on walls: Horizontal, vertical and aligned round corners.
    1.2. Joints in floors: Parallel to main axis of space or specified features.
2. Cut tiles: Minimize number, maximize size and locate unobtrusively.
3. Joints in adjoining floors and walls: Align.
4. Joints in adjoining floors and skirtings: Align.
5. Movement joints: Where locations are not indicated, submit proposals.

50 Adhesive bed – notched trowel method to walls

1. Application: By 3 mm floated coat of adhesive to dry background. Comb surface.
2. Tiling: Press tiles firmly onto float coat.

70 Grouting

1. Sequence: Grout when bed/ adhesive has set sufficient to prevent disturbance of tiles.
2. Joints: 6 mm deep (or depth of tile if less). Free from dust and debris.
3. Grouting: Fill joints completely, tool to profile, clean off surface. Leave free from blemishes.
4. Profile: Slightly concave
5. Polishing: When grout is hard, polish tiling with dry cloth.

Ω End of Section

M50
Rubber/ plastics/ cork/ lino/ carpet tiling/ sheeting

To be read with preliminaries/ general conditions.

15 Pile carpet tiles

1. Description: To Meeting Room (RM11)
2. Base: 18mm WBP plywood as drawings
3. Carpet tiles to BS EN 14041 and BS EN 1307
   - 3.1. Manufacturer: Forbo Flooring Systems
     - 3.1.1. Contact details
       - 3.1.1.1. Address: PO Box 1
         High Holborn Road
         Ripley
         Derbyshire
         DE5 3NT
       - 3.1.1.2. Telephone: +44 (0)800 093 5258
       - 3.1.1.3. Web: www.forbo-flooring.co.uk
       - 3.1.1.4. Email: info.flooring.uk@forbo.com
     - 3.1.2. Product reference: Tessera Struktur 1
   - 3.2. Style: Microtuft.
   - 3.3. Material: 100% polyamide 6.
   - 3.4. Classification
     - 3.4.1. Standard: To EN 1307 and 14041.
     - 3.4.2. Level of use class: Class 33.
   - 3.5. Recycled content: 65.42%.
   - 3.6. Size: 500 x 500 mm.
   - 3.7. Colour and pattern: 3705 kaffe.
   - 3.8. Total thickness: 5.1 mm ±10%.
   - 3.9. Total weight: 3765 g/m².
   - 3.10. Castor chair use (to BS EN 985): Minimum R-value: ≥ 2.4.
   - 3.11. Ska Rating: Struktur 1 meets Ska Rating criteria for M12 soft floor coverings in office, retail and higher education schemes.
   - 3.12. Impact sound reduction: 17 dB.
   - 3.13. Pile composition: 100% polyamide 6.
   - 3.14. Dye method: 100% solution dyed.
   - 3.15. Stitch density: 126 080 per m².
   - 3.16. Pile weight after shearing: 350 g/m² 10%.

3.17. Adhesive: As manufacturers recommendations
3.18. Light fastness (to BS EN ISO 105 B02): ≥ 6.
3.19. Dimensional stability (to BS EN 986): ≤ 0.2%.
3.20. Reaction to fire (to EN 13501-1): Cfl-s1.
3.21. Slip resistance (to EN 13893): DS: ≥ 0.30.
3.22. Pile height above backing: 1.00 mm ±0.5 mm.
3.23. Primary backing: Polyester.
3.24. Secondary backing: ProBac™ modified bitumen and polyester fleece.
3.25. Body Voltage (to EN 1815): Pass (<2 kV).
3.26. Static dissipative (to BS ISO 10965): <1 x 10^9 Ω.
3.27. Edging: As per 740.

4. Method of laying: Fully adhere all tiles with release adhesive recommended by tile manufacturer.
5. Accessories: Edging strip at thresholds
6. Other requirements: None

20 Particle-based enhanced wet area polyvinyl chloride (PVC) sheets Kitchen and WCs

1. Flooring roll
   1.1. Manufacturer: Forbo Flooring Systems
      1.1.1. Contact details
         1.1.1.1. Address: PO Box 1
         High Holborn Road
         Ripley
         Derbyshire
         DE5 3NT
         1.1.1.2. Telephone: +44 (0)800 093 5258
         1.1.1.3. Web: www.forbo-flooring.co.uk
         1.1.1.4. Email: info.flooring.uk@forbo.com
      1.1.2. Product reference: Safestep R11 Safety Vinyl
   1.2. Standard: Heterogeneous PVC to BS EN ISO 10582 and BS EN 13845 and 14041.
   1.3. Use class: Class 34 Commercial very heavy, Class 43 light industrial.
   1.4. Slip potential
      1.4.1. Slip resistance value (SRV) (minimum)/ Pendulum test value (PTV) (minimum): DIN 51130, R11; BS EN 13893, DS ≥0.30.; PTV Wet slider 96: ≥40
      1.4.2. Surface roughness (Rz) (minimum): ≥20.
   1.5. Recycled content: 20%
   1.6. Width: 2000 mm.
   1.7. Thickness: Total: 2.0 mm; Wear layer: 0.7 mm
   1.8. Colour and pattern: 174232 fossil.
   1.9. Weight (to EN-ISO 23997): 2.75 kg/m².
   1.10. Dimension stability (to EN-ISO 23999): <0.1%.
   1.11. Residual indentation (to EN-ISO 24343-1): ≤0.05 mm.
   1.12. Castor chair continuous use (to EN 425): No effect.
   1.13. Use in wet areas (to EN 13553): Yes.
   1.14. Lightfastness (to ISO 105-B02): ≥6.

1.15. Flexibility (to BS EN ISO 24344): ø 10 mm.
1.16. (to EN 13845 Annex C): Esf - (to EN 13845 Annex D 50 000 revolutions <10% loss. Pass.
1.17. Electrical resistance (to EN 1081 R1): >1 x 10^9 Ω.
1.18. Reaction to fire (to BS EN 13501): Bfl-s1.
1.19. Body voltage (to BS EN 1815): <2 kV.
1.20. Thermal conductivity (to BS EN 12524): 0.25 W/m·K.
1.21. Finishes: PUR pearl surface finish.
1.22. Adhesive: As manufacturers recommendations
1.23. Resistance to chemicals (to EN ISO 26987): Very good.
1.24. Edging: As per 740.
1.25. Skirtings: As per 770.

40 Laying coverings on new wet laid bases

1. Base drying aids: Not used for at least four days prior to moisture content test.
2. Base moisture content test: Carry out in accordance with BS 5325, Annexe A or BS 8203, Annexe A.
3. Commencement of laying coverings: Not until all readings show 75% relative humidity or less.

55 Plywood underlay

1. Standard: To BS EN 13986.
2. Bonding quality: To BS EN 314-2, class 3.
3. Appearance: To BS EN 635, class E.
4. Finish: Sanded
5. Thickness: 18mm
6. Sheet size: 2400 mm
7. Laying sheets
   7.1. Cross joints: Staggered with none coincident with joints in base.
      7.1.1. Joint width: 0.5-1 mm.
8. Fasteners: 25 mm annular ring shanked or twisted shank nails or divergent staples.
   8.1. Location: Commencing at centre of one side of each sheet, at 150 mm grid centres over area and 100 mm centres along perimeter, set in 12 mm from edge.
   8.2. Placement: Driven with heads set flush with surface and not projecting through underside of base. Not deformed.

60 Setting out tiles

1. Method: Set out from centre of area/ room so that wherever possible:
   1.1. Tiles along opposite edges are of equal size.
   1.2. Edge tiles are more than 50% of full tile width.

65 Laying coverings

1. Base/ substrate condition: Rigid, dry, smooth, free from grease, dirt and other contaminants.
2. Use a primer where recommended by adhesive manufacturer. Allow to dry thoroughly.
3. Adhesive: As specified, as recommended by covering manufacturer or, as approved.
4. Conditioning of materials prior to laying: As recommended by manufacturer.
5. Environment: Before, during and after laying, provide adequate ventilation and maintain temperature and humidity approximately at levels which will prevail after building is occupied.

6. Finished coverings: Accurately fitted, tightly jointed, securely bonded, smooth and free from air bubbles, rippling, adhesive marks, stains, trowel ridges and high spots.

70 Edgings and cover strips

1. Manufacturer: Contractors choice
2. Material/ finish: To be agreed with CA
3. Fixing: Secure (using matching fasteners where exposed to view) with edge of covering gripped.

80 Plastics skirtings

1. Manufacturer: Forbo Flooring Systems
   - 1.1. Contact details
     - 1.1.1. Address: PO Box 1
       High Holborn Road
       Ripley
       Derbyshire
       DE5 3NT
     - 1.1.2. Telephone: +44 (0)800 093 5258
     - 1.1.3. Web: www.forbo-flooring.co.uk
     - 1.1.4. Email: info.flooring.uk@forbo.com
   - 1.2. Product reference: Marmoform Coving
2. Material: PVC and linoleum.
3. Colour: To match main flooring
4. Size:: 100 x 50 x 2400 mm.

85 Waste

1. Spare covering material: Retain suitable material for patching. On completion submit pieces for selection. Hand over selected pieces to Employer.

Ω End of Section

M60
Painting/ clear finishing

To be read with preliminaries/ general conditions.

10 Water-based finishing coats Walls and Ceilings (general spaces)

1. Manufacturer: Dulux Trade, brand of AkzoNobel
   - 1.1. Contact details
     - 1.1.1. Address: AkzoNobel Decorative Paints
       Wexham Road
       Slough
       Berkshire
       SL2 5DS
     - 1.1.2. Telephone: +44 (0)333 222 7070
     - 1.1.3. Web: https://www.duluxtradepaintexpert.co.uk/en
     - 1.1.4. Email: project.support@akzonobel.com
   - 1.2. Product reference: Dulux Trade Durable Flat Matt
2. Composition: Acrylic copolymer.
3. Sheen: Matt.

4. Colour: White
5. System code: D39 - New plaster/ plasterboard.
6. Form: Liquid.
7. Surfaces: new plastered walls and ceilings
   7.1. Preparation: wash/wipe down
8. Undercoats: As manufacturers recommedations
   8.1. Number of coats: 1
9. Finishing coats: As manufacturers recommedations
   9.1. Number of coats: 2

11 Emulsion paint Walls and Ceilings (Kitchen & WCs)

1. Manufacturer: Dulux Trade
   1.1. Contact details
      1.1.1. Address: AkzoNobel Decorative Paints
      Wexham Road
      Slough
      Berkshire
      SL2 5DS
      1.1.2. Telephone: +44 (0)333 222 7070
      1.1.3. Web: https://www.duluxtradepaintexpert.co.uk/en
      1.1.4. Email: project.support@akzonobel.com
   1.2. Product reference: Matt Vinyl
2. Composition: Pigment: lightfast pigments. Binder: acrylic copolymer emulsion. Solvent: water.
3. Sheen: Matt, 2–5%.
4. Colour: White
5. Coverage: 17 m²/L.
6. Application: Apply by roller.
7. Surfaces: new plastered walls and ceilings
   7.1. Preparation: wash/wipe down
8. Undercoats: As manufacturers recommedations
   8.1. Number of coats: 1
9. Finishing coats: As manufacturers recommedations
   9.1. Number of coats: 2

14 Solvent-based finishing coats - internal joinery as drawings

1. Manufacturer: Dulux Trade, brand of AkzoNobel
   1.1. Contact details
      1.1.1. Address: AkzoNobel Decorative Paints
      Wexham Road
      Slough
      Berkshire
      SL2 5DS
      1.1.2. Telephone: +44 (0)333 222 7070
      1.1.3. Web: https://www.duluxtradepaintexpert.co.uk/en
      1.1.4. Email: project.support@akzonobel.com
   1.2. Product reference: EggshellEggshell

2. Composition: Alkyd.
3. Sheen: Eggshell.
4. Colour: White
5. Execution: Applying coating.
6. Form: Liquid.
7. Viscosity: 5,52 cm^2/s.
8. Surfaces: new joinery
   8.1. Preparation: wipe down
9. Undercoats: Undercoat/primer - As manufacturers recommedations
   9.1. Number of coats: 1
10. Finishing coats
    10.1. Number of coats: 2

16 Decorative wood stain/ varnish/ preservative

1. Manufacturer: Briwax
   1.1. Product reference: Hardwood original wax polish
2. Surfaces: new oak joinery (unpainted)
   2.1. Preparation: wipe down
3. Initial coats: As manufacturers recommedations
   3.1. Number of coats: 1
4. Finishing coats: As manufacturers recommedations
   4.1. Number of coats: Minimum 3 applications

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.

25 Surfaces not to be coated

1. refer to drawings.

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.

36 Ironmongery

1. Removal: Before commencing work remove ironmongery from surfaces to be coated.
2. Hinges: Do not remove
3. Replacement: Refurbish as necessary; refit when coating is dry.

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.

43 Plaster preparation

1. Nibs, trowel marks and plaster splashes: Scrape off.
2. Overtrowelled 'polished' areas: Provide suitable key.
3. Depressions around fixings: Fill with stopper/ filler.

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.

65 Concealed joinery surfaces

1. General: After priming, apply additional coatings to surfaces that will be concealed when component is fixed in place.

66 Concealed metal surfaces

1. General: Apply additional coatings to surfaces that will be concealed when component is fixed in place.

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.

Ω End of Section

M61
Intumescent coating for fire protection of steelwork

To be read with preliminaries/ general conditions.

15 Offsite Coating (fire protection) to all steelwork

1. Description: Two pack fast curing epoxy zinc phosphate, intumescent, tie coat, recoatable polyurethane compliant coating
2. Use/Location: External and internal exposed steelwork plus internal non exposed steelwork
3. Shop Preparation: Blast clean to Preparation Grade Sa2½ (ISO 8501-1 : 2007). Ensure adequate surface profile
4. Manufacturer: AkzoNobel International® Paint Ltd
   - 4.1. Product reference: Intergard® 251HS
     - 4.1.1. Dry Film Thickness: 75 – 100 microns nominal
5. Intumescent Coat
   - 5.1. Manufacturer: International® Paint Ltd
   - 5.2. Product Reference: Interchar® 2060C
   - 5.3. Dry Film Thickness: As required for section size
   - 5.4. Fire Resistance (to BS476 Pts 20&22 1987): 60 mins
   - 5.5. Finish: Basic to non-exposed steelwork, decorative finish to internal and external exposed steelwork
6. Top Sealer Coat
   - 6.1. Manufacturer: International® Paint Ltd
   - 6.2. Product Reference: Interthane® 990E
   - 6.3. Dry Film Thickness: 50 microns nominal –For external exposed steel apply Intergard® 276 epoxy tie coat at 30 microns nominal dft prior to applying Interthane® 990E
7. Colour
   - 7.1. non-exposed steelwork: contractors choice
   - 7.2. internal and external exposed steelwork: white - BS ref to be agreed with CA
8. Site Touch Up: Repair any intumescent damaged in transit or during erection in accordance with International® Paint Ltd Working Procedures
9. Bolt Caps: Interchar® bolt caps to be snapped into place over all structural steel bolt connections.
10. Additional

10.1. All internal and external exposed steelwork elements to be protected during transit, installation and construction. Protectiom measures to be removed on completion of works prior to handover. Contractor to make good any damage up to handover

10.2. Refer to International Paint Ltd Working Procedures re handling, transportation and storage of steelwork treated with Interchar® 2060C off-site. For confirmation of required thickness of intumescent forward Hp/A details to : martin.fenny@akzonobel.com

10.3. Interchar® 2060 is suitable for protection of internal and external steelwork up to and including a C3 Environment as per ISO 12944.

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.

Ω End of Section

N11
Domestic kitchen fittings, furnishings and equipment

To be read with preliminaries/ general conditions

10 Fitted base units and wall units

1. Description: Fitted Kitchen Units
2. Standard: To BS EN 14749.
3. Manufacturer: Howdens
   3.1. Product reference: Greenwich Sandstone - Flush Doors
4. Plan shape: Refer to drawing 2220/70
5. Surface finishes: To BS 6222-3.
6. Doors and drawer fronts
   6.1. Material: MFC slab melamine faced chip board
   6.2. Finish and colour: MFC slab melamine faced chip board
7. Side panels, plinths and shelves
   7.1. Material: MFC slab melamine faced chip board
   7.2. Finish and colour: MFC slab melamine faced chip board
8. Accessories: Belfry Matt Black Classic D Cupboard Handle 164mm

20 Worktops

1. Description: Kitchen Worktop
2. Standard: To BS 6222-3
3. Manufacturer: Howdens
   3.1. Product reference: Bespoke Apollo 30mm Lyskam White
4. Material: Quartz Composite
5. Dimensions: See drawing 2220/70
6. Other requirements: Wall splashback panels: Altro Whiterock Splashback - Colour: White Mineral 9905

30 Sinks, taps, traps and wastes

1. Description: Kitchen Counter sink
2. Sinks
   2.1. Standard: To BS EN 13310

2.2. Manufacturer: Franke

2.2.1. Product reference: Ascona 1.5 bowl

2.3. Material: Stainless steel

3. Taps: Pillar

3.1. Manufacturer: Franke

3.1.1. Product reference: Davos Kitchen

3.2. Material: Chromed steel

4. Wastes: Plug and chain

4.1. Standard: To BS EN 274-1, BS EN 274-2 and BS EN 274-3

4.2. Manufacturer: Contractor's choice

4.3. Size: To fit sink

4.4. Material: Chromed steel

4.5. Tail: Slotted

5. Traps: Tubular, P-type

5.1. Standard: To BS EN 274-1, BS EN 274-2 and BS EN 274-3

5.2. Manufacturer: Contractor's choice

5.3. Size: To fit waste

5.4. Depth of seal (minimum): 75 mm

40 Appliances

1. Item: Inset hob unit
2. Manufacturer: Howdens

2.1. Product reference: Lamona LAM1750 80cm Black Electric Ceramic Hob (5 ring)

3. Service connections: Mains electricity

41 Appliances

1. Item: Cooker/Hob Extract
2. Manufacturer: Howdens

2.1. Product reference: Lamona LAM2878 90cm Stainless Steel T-Box Cooker Hood

3. Service connections: Mains electricity

42 Appliances

1. Item: Built-in oven
2. Manufacturer: Howdens

2.1. Product reference: Lamona LAM3412 Built In Stainless Steel Single Fan Oven and Grill

3. Service connections: Mains electricity

43 Appliances

1. Item: Refrigerator
2. Manufacturer: Bosch Home Appliances

2.1. Contact details

2.1.1. Address: Grand Union House
Old Wolverton Road
Milton Keynes

United Kingdom
MK12 5PT

2.1.2. Telephone: 0344 8929021

2.1.3. Web: https://www.bosch-home.co.uk/

2.1.4. Email: mks-contracts-division@bshg.com

2.2. Product reference: Series 4 Tall Larder Fridge - Inox-look (KSC36LEP)

3. Service connections: Mains electricity

44 Appliances

1. Item: Dishwasher
2. Manufacturer: Proton
   2.1. Product reference: Washrite Model - X600A
3. Service connections: As required

50 Sealant

1. Standard: To BS EN ISO 11600, Class F20 HM
2. Type: One-part silicone
   2.1. Manufacturer: Contractor's choice
3. Colour: To match worktop

Execution

65 Installation generally

1. Fixings and adhesives: As section Z20.
2. Services: As section S90 and section V90

70 Installing units and worktops

1. General: Well-fitting, stable and secure.

75 Installing appliances

1. Connections: Provide to electric, gas, and hot and cold water services.

80 Installing sinks, taps and wastes

1. Water supply: According to BS EN 806-2 and BS EN 806-4.
2. Taps
   2.1. Fixing: Secure, watertight seal with the appliance.
   2.2. Positioning: Hot tap to left of cold tap as viewed by the user of the appliance.
3. Wastes
   3.1. Bedding: Waterproof jointing compound.
   3.2. Fixing: With resilient washer between appliance and backnut.

85 Sealant bedding and pointing

1. Application: As section Z22.

90 Installing trims and mouldings

1. Lengths: Unjointed between angles or ends of runs.
2. Angle joints: Mitred.

Ω End of Section

N13
Sanitary appliances and fittings

To be read with preliminaries/ general conditions.

10 WC pans Unisex WC RM03

1. Pan: i.life S Compact Close Coupled Back to Wall toilet
   - 1.1. Manufacturer: Ideal Standard (UK) Ltd
     - 1.1.1. Contact details
       - 1.1.1.1. Address: The Bathroom Works
         National Avenue
         Hull
         HU5 4HS
       - 1.1.1.2. Telephone: +44 (0)870 122 8822
       - 1.1.1.3. Web: www.idealstandard.co.uk
       - 1.1.1.4. Email: ukcustcare@idealstandard.com
     - 1.1.2. Product reference: i.life A Close Coupled Back To Wall Toilet
   - 1.2. Form: Back-to-wall, washdown.
   - 1.3. Pan height: 400 mm.
   - 1.4. Materials
     - 1.4.1. Body: Vitreous china.
     - 1.4.2. Finish and colour: Gloss, white.
   - 1.5. Water supply, outlet and seat holes
     - 1.5.1. Water supply: refer to BJP Specification
     - 1.5.2. Outlet: Horizontal outlet.
     - 1.5.3. Seat holes: None, integral seating rim.
   - 1.6. Projection: 605 mm.
   - 1.7. Width: 365 mm.
   - 1.8. Fixing: Fixing bolt.
   - 1.9. Net weight: 27.1 mm.

12 Accessible WC equipment packages - Accessible WC RM04

1. Manufacturer: Armitage Shanks
   - 1.1. Contact details
     - 1.1.1. Address: Armitage
       Old Road
       Rugeley
       Staffordshire
       WS15 4BT
     - 1.1.2. Telephone: +44 (0)870 122 8822
     - 1.1.3. Web: www.idealspec.co.uk
     - 1.1.4. Email: info@thebluebook.co.uk
   - 1.2. Product reference: Contour 21+ - Doc M Close Coupled Left Hand Pack
2. Standards: In accordance with Approved Document M.
3. Form: Complete accessible WC Doc M package and fittings.

4. Arrangement: Close-coupled pack.
5. Transfer handing: Left-hand.
6. Material and colour
    6.1. WC pans: Vitreous china to BS EN 997, white.
    6.2. WC cisterns: Vitreous china to BS EN 997, white.
    6.3. WC seats: Plastics, no cover.
    6.4. Washbasins
        6.4.1. Material: Vitreous china to BS EN 14688, white.
    6.5. Handrails: Powder-coated.
7. Water supply fittings: Lever-operated thermostatic mixer tap.
8. Integral accessories: Toilet roll holder.

30 Wall-hung hand rinse basins Unisex WC RM03

1. Manufacturer: Armitage Shanks
    1.1. Contact details
        1.1.1. Address: Armitage
        Old Road
        Rugeley
        Staffordshire
        WS15 4BT
        1.1.2. Telephone: +44 (0)870 122 8822
        1.1.3. Web: www.idealspec.co.uk
        1.1.4. Email: info@thebluebook.co.uk
    1.2. Product reference: Sandringham 21 - 35 cm Handrinse Basin
2. Form: Wall-hung hand rinse basin.
3. Materials
    3.1. Body: Vitreous china to BS 3402.
    3.2. Finish and colour: White.
4. Size: 340 x 260 mm.
5. Water supply, overflow and waste holes
    5.1. Water supply: Two tap holes.
6. Taps: Sandringham 21 self-closing pillar taps
7. Traps: Chrome bottle trap as manuafacturers recommendations

31 Washbasins Kitchen RM08

1. Type: Wall-hung
2. Manufacturer: Mechline
    2.1. Product reference: Basix WS3-KSV - push front hands free
3. Size: O/D: 300 x 320 x 195mm Bowl: 260 dia x 150mm deep
4. Wastes: As supplied
5. Traps: Contractors choice

60 Toilet paper holders to WCs RM03 & 04

1. Description: Toilet Paper Dispenser
2. Manufacturer: Prestige
   2.1. Product reference: Prestige Smart Mini Jumbo Toilet Roll dispenser code 4163
3. Size: H220 x W218 x Depth: 125mm
4. Material: Stainless steel

62 Soap dispensers to WCs & Kitchen (RM04, 04 & 08)

1. Description: Wall mounted liquid soap dispenser
2. Manufacturer: Prestige Washrooms
   2.1. Product reference: Genwec Falcon Opal White 900ml Liquid Soap Dispenser Code: 7969

63 Glass mirrors - WCs RM03 & 04

1. Description: Small wall mirrors
2. Manufacturer: Contractor's choice
3. Type: As schedule
4. Size: See Drawings
5. Protective backing: Polypropylene safety film

64 Hand dryers - WCs RM03 & 04

1. Description: Wall mounted hand dryer
2. Standard: To BS EN 60335-2-23.
3. Manufacturer: Prestige Washrooms
   3.1. Product reference: Genwec Falcon Vandal Resistant Hand Dryer - White Stainless Steel (Produce Code 7953)
4. Heater power rating: 230-900W (IP24)
5. Controls: Automatic
6. Enclosure: Stainless steel
   6.1. Colour: White

70 Installation generally

1. Standards: In accordance with BS 6465-1, -2 and -3.
2. Assembly and fixing: Fix appliances securely to structure, without taking support from pipelines, level and plumb and so that surfaces designed to fall drain as intended.
3. Fasteners: Non-ferrous or stainless steel.
4. Jointing and bedding compounds: Recommended by manufacturers of appliances, accessories and pipes, to form watertight joints between appliances and backgrounds (except cisterns) and between appliances and discharge pipes.
5. Supply and discharge pipework: Fix before appliances.
6. Timing: Tiled backgrounds, other than splashbacks, complete before fixing appliances. Do not overstress tiles when fixing appliances.
7. On completion: Components and accessories working correctly with no leaks.
8. Labels and stickers: Remove.

75 Installing cisterns

1. Cistern operating components: Obtain from cistern manufacturer.
2. Inlet and flushing valves: Match to pressure of water supply.
3. Internal overflows: Into pan, to give visible warning of discharge.
4. External overflows: Fix pipes to falls, and locate to give visible warning of discharge. Agree position.

76 Installing taps

1. Fixing: Secure against twisting.
2. Seal with appliance: Watertight.
3. Positioning: Hot tap to left of cold tap as viewed by user of appliance.

77 Installing wastes and overflows

1. Bedding: Waterproof jointing compound.
2. Fixing: With resilient washer between appliance and backnut.

78 Installing hand dryers

1. Fused connection units
    1.1. Type: Switched
    1.2. Engraving: With 'HAND DRYER'.
    1.3. Location: Refer to BJP Specification and drawings
2. Final connection: Concealed.

Ω End of Section

P10
Sundry insulation/ proofing work

To be read with preliminaries/ general conditions.

5 Eaves roof ventilators for existing roofs

1. Manufacturer: Contractor's choice
2. Eaves free air space (minimum): As recommended in BRE Report 262.

16 Polyisocyanurate (PIR) foam boards laid between and over rafters

1. Manufacturer: Kingspan Insulation
    1.1. Contact details
        1.1.1. Address: Kingspan Insulation Ltd
        Pembridge
        Leominster
        Herefordshire
        United Kingdom
        HR6 9LA
        1.1.2. Telephone: +44 (0)1544 388601
        1.1.3. Web: https://www.kingspan.com/gb/en-gb
        1.1.4. Email: info@kingspaninsulation.co.uk
    1.2. Product reference: Kingspan Kooltherm K107 Pitched Roof Board (Kingspan Kooltherm K107 Pitched Roof Board - 100 mm)
2. Standard: To BS EN 13166.
3. Third-party certification: British Board of Agrément (BBA) certification.

4. Fire performance: Euroclass RtF F to BS EN 13501-1:2018.
5. Thermal conductivity (maximum): 0.019 W/m·K.
6. Compressive strength (minimum) at 10% compression: 100 kPa.
7. Cross section: Uniform thickness.
8. Thickness: 100 mm laid between rafters and 100mm laid over rafters.
9. Face size (length x width): 2400 x 1200 mm.
10. Recycled content: 0% (minimum) to BS EN ISO 14021.
11. Edges: Square.
12. Facing: Metal foil laminate.
13. Core: Rigid thermoset fibre-free phenolic insulant core.

45 Insulation laid between floor joists

1. Manufacturer: Isover
   1.1. Product reference: Isover Acoustic Partition Roll
2. Material: Rock wool to BS EN 13162
3. Thickness: 100mm
4. Installation requirements
   4.1. Joints: Butted, no gaps.
   4.2. Service openings: Sealed.
   4.3. Electric cables overlaid by insulation: Sized accordingly.

Ω End of Section

P31
Holes, chases, covers and supports for services

Clauses

- See 'BJP Consultancy' Specification

10 Holes, recesses and chases in masonry

1. Locations:: To maintain integrity of strength, stability and sound resistance of construction.
2. Sizes:: Minimum needed to accommodate services.
   2.1. Holes (maximum): : To be agreed on site with the CA
3. Walls of hollow or cellular blocks:: Do not chase
4. Walls of other materials::
   4.1. Vertical chases:: No deeper than one third of single leaf thickness, excluding finishes.
   4.2. Horizontal or raking chases:: No longer than 1 m. No deeper than one sixth of the single leaf thickness, excluding finishes.
5. Chases and recesses:: Do not set back to back. Offset by a clear distance at least equal to the wall thickness
6. Cutting:: Do not cut until mortar is fully set. Cut carefully and neatly. Avoid spalling, cracking and other damage to surrounding structure.

20 Notches and holes in structural timber

1. General: Avoid if possible.
2. Sizes: Minimum needed to accommodate services.
3. Position: Do not locate near knots or other defects.
4. Notches and holes in same joist: Minimum 100 mm apart horizontally.

5. Notches in joists
    5.1. Position: Locate at top. Form by sawing down to a drilled hole.
    5.2. Depth (maximum): 0.15 x joist depth.
    5.3. Distance from supports: Between 0.1 and 0.2 x span
6. Holes in joists
    6.1. Position: Locate on neutral axis.
    6.2. Diameter (maximum): 0.25 x joist depth.
    6.3. Centres (minimum): 3 x diameter of largest hole.
    6.4. Distance from supports: Between 0.25 and 0.4 of span
7. Notches in roof rafters, struts and truss members: Not permitted.
8. Holes in struts and columns: Locate on neutral axis.
    8.1. Diameter (maximum): 0.25 x joist depth.
    8.2. Centres (minimum): 3 x diameter of largest hole.
    8.3. Distance from ends: Between 0.25 and 0.4 of span

30 Pipe sleeves

1. Material: Match pipeline
2. Sleeves: Extend through full thickness of wall or floor. Position accurately.
    2.1. Clearance around service (maximum): 20 mm or diameter of service, whichever is the lesser.

40 Sealing around services

1. Service: Electrical cables, plumbing pipes etc.
2. Location: As drawings
3. Sealing material: Contractors choice - refer to BJP Specification

Ω End of Section

Q10
Kerbs/ edgings/ channels/ paving accessories

To be read with preliminaries/ general conditions.

35 Drainage channel systems with gratings

1. Manufacturer: ACO Technologies
    1.1. Product reference: ACO Multidrain 200MD
2. Type of fall: Integral continuous fall
3. Finish: As cast
4. Colour: Natural
5. Accessories: Heelguard mesh grate cover
6. Bedding: Cement mortar
7. Joints generally: Polysulfide sealant
8. Cover gratings: Galvanized steel, slotted
    8.1. Fixings: Anti-vandal security catches
    8.2. Finish/ Colour: Galvanized

40 Laying kerbs, edgings and channels

1. Standard: To BS 7533-6.
2. Cutting: Neat and accurate and without spalling. Form neat junctions.
    2.1. Long units' (450 mm and over) minimum length after cutting: 300 mm.
    2.2. Short units' minimum length after cutting: The lower of one third of their original length or 50 mm.
3. Bedding of units: Positioned true to line and levelled along top and front faces, in a mortar bed on accurately cast foundations or on a race of fresh concrete.
4. Securing of units: After bedding has set, secured with a continuous haunching of concrete or on a race of fresh concrete with backing concrete cast monolithically.

41 Concrete for foundations, races and haunching

1. Standard: To BS 8500-2.
2. Designated mix: Not less than GEN0 or Standard mix ST1.
3. Workability: Very low.

42 Cement mortar bedding

1. General: To section Z21.
2. Mix: (Portland cement:sand): 1:3.
    2.1. Portland cement: Class CEM I 42.5 to BS EN 197-1.
    2.2. Sand: to BS EN 12620, grade 0/4 or 0/2 (MP).
3. Bed thickness: 12-40 mm.

44 Drainage channel systems

1. Installation: To an even gradient, without ponding or backfall. Commence laying from outlets.
2. Silt and debris: Removed from entire system immediately before handover.
3. Washing and detritus: Safely disposed without discharging into sewers or watercourses.

45 Accuracy

1. Deviations (maximum)
    1.1. Level: ± 6 mm.
    1.2. Horizontal and vertical alignment: 3 mm in 3 m.

50 Tooled mortar joints

1. Jointing: Ends of units buttered with bedding mortar as laying proceeds. Joints completely filled and tooled to a neat flush profile.
    1.1. Joint width: 6 mm.

80 Regularity of paved surfaces

1. Maximum undulation of (non-tactile) paving surface: 3 mm.
    1.1. Method of measurement: Under a 1 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface).
2. Difference in level between adjacent units (maximum)
    2.1. Joints flush with the surface: Twice the joint width (with 5 mm max difference in level).
    2.2. Recessed, filled joints: 2 mm.
        2.2.1. Recess depth (maximum): 5 mm.
    2.3. Unfilled joints: 2 mm.

3. Sudden irregularities: Not permitted.

Ω End of Section

Q25
Slab/ brick/ sett/ cobble pavings

To be read with preliminaries/ general conditions

11 Laying pavings – general

1. Appearance: Smooth and even with regular joints and accurate to line, level and profile.
2. Falls: To prevent ponding.
3. Bedding of paving units: Firm so that rocking or subsidence does not occur or develop.
   3.1. Bedding/ Laying course: Consistently and accurately graded, spread and compacted to produce uniform thickness and support for paving units.
4. Slopes: Lay paving units upwards from the bottom of slopes.
5. Paving units: Free of mortar and sand stains.
6. Cutting: Cleanly and accurately, without spalling, to give neat junctions with edgings and adjoining finishes.

16 Levels of paving

1. Permissible deviation from specified levels (generally)
   1.1. Generally: +/-6 mm.
2. Height of finished paving above features
   2.1. At gullies: +6 to +10 mm.
   2.2. At drainage channels and kerbs: +3 to +6 mm.

18 Regularity of paved surfaces

1. Maximum undulations in the surface of pavings (except tactile paving surfaces) under a 1 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface): 3 mm.
2. Joints between paving units or utility access covers
   2.1. Joints flush with the surface: Difference in level between adjacent units to be no more than twice the joint width (with a 5 mm maximum difference in level).
   2.2. Recessed, filled joints: Difference in level between adjacent units to be no greater than 2 mm; the recess to be no deeper than 5 mm.
   2.3. Unfilled joints: Difference in level between adjacent units to be no greater than 2 mm.
3. Sudden irregularities: Not permitted.

21 Protection

1. Cleanliness: Keep paving clean and free from mortar droppings, oil and other materials likely to cause staining.
2. Materials storage: Do not overload pavings with stacks of materials.
3. Handling: Do not damage paving unit corners, arrises, or previously laid paving.
4. Mortar-bedded pavings: Keep free from traffic after laying:
   4.1. Pedestrian traffic (minimum): Four days
   4.2. Vehicular traffic (minimum): Ten days
5. Access: Restrict access to paved areas to prevent damage from site traffic and plant.

50 Natural stone slabs

1. Description: External paving to courtyard
2. Standard: To BS EN 1341.
3. Supplier: Forest of Dean Stone Firms Ltd.
   3.1. Product reference: Royal Forest Pennant
4. Finish: Sawn
5. Sizes: Rectangular, maximum length 750 mm, width 450 mm – thickness 40 mm
6. Arrises: Square
7. Surface treatment: None

72 Laying geotextile sheet overlays

1. Location: Immediately below the laying course.
2. Laying: Fit neatly at edge restraints and other features that interrupt the laying course, e.g. drainage fittings, channels, manholes and kerbs.
3. Edge detail: Turn sheet up to form an upstand against features, height not less than thickness of the laying course.
4. Width: 1500 mm
5. Jointing: Lap by 300 mm.

76 Laying flag and slab paving – mortar laying course and jointing

1. Standard generally: In accordance with BS 7533-4.
2. Flag installation and cutting: To Interpave publication Concrete flag paving.
3. Laying course
   3.1. Nominal thickness: 30 mm before laying paving slabs
4. Laying and jointing: Refer to drawings
5. Joint width (nominal): 5–10 mm

90 Completion of paving with dry sand or fine aggregate-filled joints

1. Sand dressing: Leave a thin layer of dry jointing sand/ fine aggregate over the paving until opened to public access
2. Final compaction of the surface course: In accordance with BS 7533-3.
3. Vacuum cleaning machines: Not allowed.

Ω End of Section

R10
Rainwater drainage systems

To be read with preliminaries/ general conditions.

11 Aluminium gutters

1. Manufacturer: Marley Alutec, Unit 1 (G-H), Hudson Road, Elms Farm Industrial Estate, Bedford MK41 0LZ
   Tel: 01234 359438, Fax: 01234 357199.
   Email: enquiries@marleyalutec.co.uk
   1.1. Product reference: Evolve Deepflow aluminium rainwater system
2. Profile: Deep semi elliptical
3. Type/ Thickness: Marine grade extruded aluminium to BS EN 755-2:2008
4. Nominal size: 128x75mm

5. Finish: Polyester powder coated to BS EN 12206-1:2004
6. Colour: Black
7. Brackets: As shown on drawings
8. Jointing: External JuraJoint joint union with integral EPDM rubber and cross linked with Alutec sealant
9. Fixing: BS EN 1462:2004 Class H, external fascia brackets at 1m centres. Fixed with Alutec austenitic stainless steel 32mm x No. 10 round head screws

30 Aluminium pipework

1. Manufacturer: Marley Alutec, Unit 1 (G-H), Hudson Road, Elms Farm Industrial Estate, Bedford MK41 0LZ
   Tel: 01234 359438, Fax: 01234 357199.
   Email: enquiries@marleyalutec.co.uk
   1.1. Product reference: Evolve circular aluminium rainwater system
2. Type/ Thickness: Marine Grade extruded aluminium to BS EN755-2:2008 grade 6063-T5 pipe with cast aluminium sockets to BS EN 1706:2010
3. Section: Round
4. Nominal sizes: 63mm diameter
5. Finish: Polyester powder coated to BS EN 12206-1:2004
6. Colour: Black
7. Brackets: As shown on drawings
8. Accessories: Bends, Branches, Access Pipes, 2 Piece Offset, Shoes, Hopper Head, Pipe Clips
9. Fixing: Via eared cast sockets and or extruded pipe clips. Plug and screw to wall with Alutec 50mm x No. 12 domehead screws
10. Jointing: Cast socket and spigot dry joint allowing for a 3-4 mm vertical thermal movement gap

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.

60 Gutters laid to fall

1. Setting out: To true line and even gradient to prevent ponding or backfall. Position high points of gutters as close as practical to the roof and low points not more than 50 mm below the roof.
2. Joints: Watertight.
3. Roofing underlay: Dressed into gutter.

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.

92 Gutter test

1. Preparation: Temporarily block all outlets.
2. Testing: Fill gutters to overflow level and after 5 minutes closely inspect for leakage.

Ω End of Section

R11
Above ground foul drainage systems

To be read with preliminaries/ general conditions.

Refer to separate BJP specification details .

Ω End of Section

R12
Below ground drainage systems

To be read with preliminaries/ general conditions.

3 Existing drains

1. Setting out: Before starting work, check invert levels and positions of existing drains, sewers, inspection chambers and manholes against drawings. Report discrepancies.
2. Protection: Protect existing drains to be retained and maintain normal operation if in use.

14 Pipes, bends and junctions – PVC-U – solid wall

1. Description: Pipes, bends and junctions
2. Standard: To BS EN 1401-1, with flexible joints.
3. Class: Submit proposals
4. Manufacturer: Hunter Drainage
   4.1. Product reference: 110mm dia. plain ended pipework
5. Sizes: As drawings
6. Application area code: UD.
7. Bedding class:: To be agreed
8. Warning Marker Tape:: To be agreed

17 Lower part of trench – general

1. Trench up to 300 mm above crown of pipe: Vertical sides, width as small as practicable.
   1.1. Width (minimum): External diameter of pipe plus 300 mm.

18 Type of subsoil

1. General: Where type of subsoil at level of crown of pipe differs from that stated for the type of bedding, surround or support, give notice.

19 Formation for beddings

1. Timing: Excavate to formation immediately before laying beddings or pipes.
2. Mud, rock projections, boulders and hard spots: Remove. Replace with consolidated bedding material.
3. Local soft spots: Harden by tamping in bedding material.
4. Inspection of excavated formations: Give notice.

21 Laying pipelines

1. Laying pipes: To true line and regular gradient on even bed for full length of barrel with sockets (if any) facing up the gradient.
2. Ingress of debris: Seal exposed ends during construction.
3. Timing: Minimize time between laying and testing.

22 Jointing pipelines

1. Connections: Durable, effective and free from leakage.
2. Junctions, including to 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. Allowance for movement: Provide and maintain appropriate clearance at ends of spigots as fixing and jointing proceeds.
6. Jointing material: Do not allow to project into bore of pipes and fittings.

23 Class D bed

1. Trench bottom: Excavate slightly shallower than final levels.
2. Trimming: By hand to accurate gradients. Replace overdig with compacted soil.
3. Pipes: Rest uniformly on barrels, adjust to line and gradient. Do not use hard packings under pipes.
4. Initial testing before backfilling: Required
5. Backfilling
    - 5.1. Material: Protective cushion of selected fill.
    - 5.2. Depth: 150 mm (250 mm for adoptable sewers) above crown of pipe.
    - 5.3. Compaction: By hand in 100 mm layers.

25 Class F bedding

1. Granular material: 10mm pea gravel
    - 1.1. Sizes: To Water Industry Specification WIS 4-08-02 (as amended by WIS 4-08-02A, 2008).
2. Bedding
    - 2.1. Material: Granular, compacted over full width of trench.
    - 2.2. Thickness (minimum): 50 mm for sleeve jointed pipes, 100 mm for socket jointed pipes. Where trench bottom is uneven, increase thickness by 100 mm.
3. Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.
4. Initial testing before backfilling: Required
5. Backfilling
    - 5.1. Material: Protective cushion of selected fill.
    - 5.2. Depth: 150 mm (250 mm for adoptable sewers) above crown of pipe.
    - 5.3. Compaction: By hand in 100 mm layers.

27 Class P support

1. Granular material: Contractor's choice
    1.1. Sizes: To Water Industry Specification WIS 4-08-02 (as amended by WIS 4-08-02A, 2008).
2. Bedding
    2.1. Material: Granular, compacted over full width of trench.
    2.2. Thickness (minimum): 100 mm.
3. Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.
4. Initial testing before placing support: Required
5. Support
    5.1. Material: Granular.
    5.2. Depth: To slightly above crown of pipe.
    5.3. Compaction: By hand.
6. Backfilling
    6.1. Material and depth
        6.1.1. Protective cushion of selected fill to 300 mm above crown of pipe; or
        6.1.2. Additional granular material, to 100 mm above crown of pipe.
    6.2. Compaction: By hand in 100 mm layers.

31 Class W surround

1. Timing: Excavate trench after hardcore has been laid and compacted.
2. Granular material: Contractor's choice
    2.1. Sizes: To Water Industry Specification WIS 4-08-02 (as amended by WIS 4-08-02A, 2008)
3. Bedding
    3.1. Material: Granular, compacted over full width of trench.
    3.2. Thickness (minimum): 100 mm.
4. Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.
5. Initial testing before placing surround: Required
6. Surround
    6.1. Material: Granular.
    6.2. Depth: To 100 mm above crown of pipe.
    6.3. Compaction: By hand.
7. Backfilling
    7.1. Material: Hardcore as section D20, or granular.
    7.2. Depth: Up to slab formation.
    7.3. Compaction: In 300 mm (maximum) thick layers.

39 Class Z surround

1. Blinding
    1.1. Material: Concrete.
    1.2. Thickness (minimum): 25 mm.
    1.3. Width: Full width of trench.
    1.4. Allow to set before proceeding.
2. Pipes

2.1. Temporary support: Folding wedges of compressible board. Prevent flotation.

2.2. Clearance under pipes (minimum): 100 mm.

2.3. Adjust pipes to line and gradient.

3. Initial testing before placing surround: Required

4. Surround

4.1. Material: Concrete.

4.2. Depth: To 150 mm above crown of pipe.

4.3. Width: Full width of trench.

5. Vertical construction joints

5.1. Location: At face of flexible pipe joints.

5.2. Material: 18 mm thick compressible board precut to profile of pipe.

5.3. Socketed pipes: Fill gaps between spigots and sockets with resilient material to prevent entry of concrete.

41 Concrete surround for pipe runs near foundations

1. Class Z surround: Provide in locations where bottom of trench is lower than bottom of foundation and as follows (horizontal clear distance between nearest edges of foundations and pipe trenches):

1.1. Trenches less than 1 m from foundations: Top of concrete surround not lower than bottom of foundation.

1.2. Trenches more than 1 m from foundations: Top of concrete surround not lower than D mm below bottom of foundation, where D mm is horizontal distance of trench from foundation, less 150 mm.

44 Bends at base of soil stacks

1. Radius to centreline of the pipe (minimum): 90°nominal rest bend with a minimum radius of 200mm to centreline of pipe

2. Height of invert of horizontal drain at base of stack below centreline of lowest branch pipe (minimum): 450 mm

3. Bedding: Do not impair flexibility of pipe couplings.

50 One piece gullies and covers

1. Description: - BACK INLET - roddable

2. Standards: To BS EN 1253-1, -2, -3, -4 and -5; or

2.1. Cast iron: To BS 437 and Kitemark-certified, or Agrément-certified.

2.2. Clay: To BS EN 295-1 and Kitemark-certified, or Agrément-certified.

2.3. Concrete: To BS 5911-6 and Kitemark-certified, or Agrément-certified.

2.4. Plastics: To BS 4660 and Kitemark-certified, or Agrément-certified.

2.5. Polypropylene: To BS EN 1852-1.

3. Material: Clay

4. Manufacturer: Contractors Choice

5. Sizes: 110mm

6. Outlet sizes: As shown on drawings

7. Covers: To each gully

7.1. Type: Bolted grating

7.2. Material: Aluminium

7.3. Sizes: To suit gully

7.4. Loading grade to BS EN 124: A15

8. Silt buckets: Galvanized steel

54 Access points

1. Description: As shown on drawings
2. Standard: To BS 4660 and Kitemark-certified, to BS EN 13589-1, or Agrément-certified.
3. Manufacturer: Hunter Drainage Ltd
4. Nominal diameter: 230mm
5. Bases
   5.1. Product reference: D571
6. Raising pieces
   6.1. Heights: 140mm min: invert - raising pieces as required
7. Access covers and frames
   7.1. Product reference: Round sealed unit - DS69 - black
   7.2. Loading grades to BS EN 124: light traffic only

58 Installation of access covers and frames

1. Seating: Precast concrete
2. Bedding and haunching of frames: Continuously.
   2.1. Material: 1:3 cement:sand mortar
   2.2. Top of haunching: 30 mm below surrounding surfaces.
3. Horizontal positioning of frames
   3.1. Centred over openings.
   3.2. Square with joints in surrounding paving.
4. Vertical positioning of frames
   4.1. Level; or
   4.2. Marry in with levels of surrounding paving.
5. Permissible deviation in level of external covers and frames:: +0 to -6 mm.

65 Manholes and inspection chambers

1. Description: To external drainage routes
2. Standard: To BS EN 13598-2
3. Manufacturer: Hunter Drainage Ltd.
   3.1. Product reference: Equal Chamberbase range
4. Shape: Circular
5. Size: As shown on drawings
6. Moulded base
   6.1. Channels and connections: As shown on drawings
   6.2. Benching: As shown on drawings
7. Formwork for concrete surround: Required
8. Steps: Required in chambers over 900 mm deep
9. Vortex flow control unit: Not required

69 Laying conventional channels, branches and benching

1. Main channel: Bed solid in 1:3 cement:sand mortar.
    1.1. Branches: Connect to main channel at or slightly above invert level, but not higher than half channel level, so that discharge flows smoothly in direction of main flow.
    1.2. Branches greater than nominal size 150 mm: Connect the branch soffit level with the main drain soffit.
    1.3. Connecting angles more than 45° to direction of flow: Use three-quarter section channel bends.
2. Benching
    2.1. Material: concrete.
    2.2. Profile: Rise vertically from top of main channel to a level not lower than soffit of outlet pipe, then sloping upwards at 10% to walls.
    2.3. Topping
        2.3.1. Material: 1:3 Cement:sand mortar
    2.4. Application: Before benching concrete has set, and with dense smooth uniform finish.

71 Laying preformed plastics channels, branches and benching

1. Main channel: Bed solid in 1:3 cement:sand mortar.
    1.1. Branches: Connect to main channel at or slightly above invert level, but not higher than half channel level, so that discharge flows smoothly in direction of main flow.
    1.2. Connecting angles more than 45° to direction of flow: Use three-quarter section channel bends.
2. Bedding: 1:3 cement:sand mortar. Use clips or ensure adequate mechanical key.
3. Benching
    3.1. Material: Concrete.
    3.2. Profile: Rise vertically from top of main channel to a level not lower than soffit of outlet pipe, then slope upwards at 10% to walls.
    3.3. Topping
        3.3.1. Material: 1:3 Cement:sand mortar
    3.4. Application: Before benching concrete has set, and with dense smooth uniform finish.

79 Access covers and frames

1. Description: Unisex WC floor
2. Standard: To BS EN 124.
3. Types: Double sealed with inset cover (to receive flooring finish)
4. Manufacturer: Contractors Choice
5. Material: Aluminium
6. Finishes: Shot blasted and zinc sprayed
7. Sizes: See drawings
8. Loading grades to BS EN 124: F900 A15
9. Edging trims: Aluminium
10. Accessories: Lockable cover

84 Testing and inspection

1. Dates for testing and inspection: Give notice.
    1.1. Period of notice: 5 working days.

85 Initial testing of pipelines

1. Before testing
   1.1. Cement mortar jointing: Leave 24 h.
   1.2. Solvent welded pipelines: Leave 1 h.
2. Method: Block open ends of pipelines to be tested and pressurise. Air test short lengths to BS EN 1610.

88 Final testing of private gravity drains and sewers up to dn 300

1. Before testing
   1.1. Cement mortar jointing: Leave 24 h.
   1.2. Solvent welded pipelines: Leave 1 h.
2. Standard: To Building Regulations.
3. Method: Water

89 Water testing of manholes and inspection chambers

1. Timing: Before backfilling.
2. Standard
   2.1. Exfiltration: To BS EN 1610.
   2.2. Method: Testing with water (method W).
   2.3. Infiltration: No identifiable flow of water penetrating the chamber.

91 Backfilling to pipelines

1. Backfilling above top of surround or protective cushion: Material excavated from trench, compacted in layers 300 mm (maximum) thick.
2. Heavy compactors: Do not use before there is 600 mm (total) of material over pipes.

94 Backfilling under roads and pavings

1. Backfilling from top of surround or protective cushion up to formation level: Granular sub-base material, laid and compacted in 150 mm layers.

97 Removal of debris and cleaning

1. Preparation: Lift covers to manholes, inspection chambers and access points. Remove mortar droppings, debris and loose wrappings.
   1.1. Timing: Before cleaning, final testing, CCTV inspection if specified, and immediately before handover.
2. Cleaning: Thoroughly flush pipelines with water to remove silt and check for blockages. Rod pipelines between access points if there is any indication that they may be obstructed.
3. Washings and detritus: Do not discharge into sewers or watercourses.
4. Covers: Securely replace after cleaning and testing.

Ω End of Section

T90
Heating systems

General

Refer to separate BJP specification details .

System performance - Not Used

Products - Not Used

Execution - Not Used

Completion - Not Used

Ω End of Section

U90
General ventilation

General

Refer to separate BJP specification details .

System performance - Not Used

Products - Not Used

Execution - Not Used

Completion - Not Used

Ω End of Section

V90
Electrical systems

General

Refer to separate BJP specification details .

System performance - Not Used

Products - Not Used

Execution - Not Used

Completion - Not Used

Ω End of Section

Z10
Purpose-made joinery

To be read with preliminaries/ general conditions.

110 Fabrication

1. Standard: To BS 1186-2.
2. Sections: Accurate in profile and length, and free from twist and bowing. Formed out of solid unless shown otherwise.
   2.1. Machined surfaces: Smooth and free from tearing, wooliness, chip bruising and other machining defects.

3. Joints: Tight and close fitting.
4. Assembled components: Rigid. Free from distortion.
5. Screws: Provide pilot holes.
    5.1. Screws of 8 gauge (4 mm diameter) or more and screws into hardwood: Provide clearance holes.
    5.2. Countersink screws: Heads sunk at least 2 mm below surfaces visible in completed work.
    5.3. Adhesives: Compatible with wood preservatives applied and end uses of timber.

120 Cross section dimensions of timber

1. General: Dimensions on drawings are finished sizes.
2. Maximum permitted deviations from finished sizes
    2.1. Softwood sections: To BS EN 1313-1:-
        2.1.1. Clause 6 for sawn sections.
    2.2. Hardwood sections: To BS EN 1313-2:-
        2.2.1. Clause 6 for sawn sections.
        2.2.2. Clause NA.3 for further processed sections.

130 Preservative treated wood

1. Cutting and machining: Completed as far as possible before treatment.
2. Extensively processed timber: Retreat timber sawn lengthways, thicknessed, planed, ploughed, etc.
3. Surfaces exposed by minor cutting and/ or drilling: Treat as recommended by main treatment solution manufacturer.

140 Moisture content

1. Wood and wood-based products: Maintained within range specified for the component during manufacture and storage.

250 Finishing

1. Surfaces: Smooth, even and suitable to receive finishes.
    1.1. Arrises: Eased unless shown otherwise on drawings.
2. End grain in external components: Sealed with primer or sealer as section M60 and allowed to dry before assembly.

Ω End of Section

Z20
Fixings and adhesives

Products

310 Fasteners generally

1. Materials: To have:
    1.1. Bimetallic corrosion resistance appropriate to items being fixed.
    1.2. Atmospheric corrosion resistance appropriate to fixing location.
2. Appearance: Submit samples on request.

320 Packings

1. Materials: Non-compressible, corrosion proof.
2. Area of packings: Sufficient to transfer loads.

340 Masonry fixings

1. Light duty: Plugs and screws.
2. Heavy duty: Expansion anchors or chemical anchors.

350 Plugs

1. Type: Proprietary types to suit substrate, loads to be supported and conditions expected in use.

390 Adhesives generally

1. Standards
   1.1. Hot-setting phenolic and aminoplastic: To BS 1203.
   1.2. Thermosetting wood adhesives: To BS EN 12765.
   1.3. Thermoplastic adhesives: To BS EN 204.

410 Powder actuated fixing systems

1. Types of fastener, accessories and consumables: As recommended by tool manufacturer.

Execution

610 Fixing generally

1. Integrity of supported components: Select types, sizes, quantities and spacings of fixings, fasteners and packings to retain supported components without distortion or loss of support.
2. Components, substrates, fixings and fasteners of dissimilar metals: Isolate with washers/ sleeves to avoid bimetallic corrosion.
3. Appearance: Fixings to be in straight lines at regular centres.

620 Fixing through finishes

1. Penetration of fasteners and plugs into substrate: To achieve a secure fixing.

630 Fixing packings

1. Function: To take up tolerances and prevent distortion of materials and components.
2. Limits: Do not use packings beyond thicknesses recommended by fixings and fasteners manufacturer.
3. Locations: Not within zones to be filled with sealant.

640 Fixing cramps

1. Cramp positions: Maximum 150 mm from each end of frame sections and at 600 mm maximum centres.
2. Fasteners: Fix cramps to frames with screws of same material as cramps.
3. Fixings in masonry work: Fully bed in mortar.

670 Pelleted countersunk screw fixing

1. Finished level of countersunk screw heads: Minimum 6 mm below timber surface.
2. Pellets: Cut from matching timber, match grain and glue in to full depth of hole.
3. Finished level of pellets: Flush with surface.

680 Plugged countersunk screw fixing

1. Finished level of countersunk screw heads: Minimum 6 mm below timber surface.
2. Plugs: Glue in to full depth of hole.
3. Finished level of plugs: Projecting above surface.

690 Using powder actuated fixing systems

1. Powder actuated fixing tools: To BS 4078-2 and Kitemark certified.
2. Operatives: Trained and certified as competent by tool manufacturer.

700 Applying adhesives

1. Surfaces: Clean. Adjust regularity and texture to suit bonding and gap filling characteristics of adhesive.
   1.1. Support and clamping during setting: Provide as necessary. Do not mark surfaces of or distort components being fixed.
2. Finished adhesive joints: Fully bonded. Free of surplus adhesive.

Ω End of Section

Z21
Mortars

Cement gauged mortars

110 Cement gauged mortar mixes

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

120 Sand for site made cement gauged masonry mortars

1. Standard: To BS EN 13139.
2. Grading: 0/2 (FP or MP).
   2.1. Fines content where the proportion of sand in a mortar mix is specified as a range (e.g. 1:1: 5-6):
      2.1.1. Lower proportion of sand: Use category 3 fines.
      2.1.2. Higher proportion of sand: Use category 2 fines.
3. Sand for facework mortar: Maintain consistent colour and texture. Obtain from one source.

131 Ready-Mixed lime:sand for cement gauged masonry mortars

1. Standard: To BS EN 998-2.
2. Lime: Nonhydraulic to BS EN 459-1.
   2.1. Type: CL 90S.
3. Pigments for coloured mortars: To BS EN 12878.

135 Site made lime:sand for cement gauged masonry mortars

1. Permitted use: Where a special colour is not required and in lieu of factory made ready-mixed material.
2. Lime: Nonhydraulic to BS EN 459-1.
   2.1. Type: CL 90S.
3. Mixing: Thoroughly mix lime with sand, in the dry state. Add water and mix again. Allow to stand, without drying out, for at least 16 hours before using.

160 Cements for mortars

1. Cement: To BS EN 197-1 and CE marked.
   1.1. Types: Portland cement, CEM I.
2. Portland limestone cement, CEM II/A-L or CEM II/A-LL.
3. Portland slag cement, CEM II/B-S.
4. Portland fly ash cement, CEM II/B-V.
   4.1. Strength class: 32.5, 42.5 or 52.5.

5. White cement: To BS EN 197-1 and CE marked.
    5.1. Type: Portland cement, CEM I.
    5.2. Strength class: 52.5.
6. Sulfate resisting Portland cement
    6.1. Types: To BS EN 197-1 Sulfate resisting Portland cement, CEM I/SR and CE marked.
7. To BS EN 197-1 fly ash cement, CEM II/B-V and CE marked.
    7.1. Strength class: 32.5, 42.5 or 52.5.
8. Masonry cement: To BS EN 413-1 and CE marked.
    8.1. Class: MC 12.5.

180 Admixtures for site made cement gauged mortars

1. Air entraining (plasticizing) admixtures: To BS EN 934-3 and compatible with other mortar constituents.
2. Other admixtures: Submit proposals.
3. Prohibited admixtures: Calcium chloride, ethylene glygol and any admixture containing calcium chloride.

190 Retarded ready to use cement gauged masonry mortars

1. Standard: BS EN 998-2.
2. Lime for cement:lime:sand mortars: Nonhydraulic to BS EN 459-1.
    2.1. Type: CL 90S.
3. Pigments for coloured mortars: To BS EN 12878.
4. Time and temperature limitations: Use within limits prescribed by mortar manufacturer.
    4.1. Retempering: Restore workability with water only within prescribed time limits.

210 Making cement gauged mortars

1. Batching: By volume. Use clean and accurate gauge boxes or buckets.
    1.1. Mix proportions: Based on dry sand. Allow for bulking of damp sand.
2. Mixing: Mix materials thoroughly to uniform consistency, free from lumps.
    2.1. Mortars containing air entraining admixtures: Mix mechanically. Do not overmix.
3. Working time (maximum): Two hours at normal temperatures.
4. Contamination: Prevent intermixing with other materials.

Lime:sand mortars - Not Used

Ω End of Section

SECTIONS C-Z – Part B – Chedburn Conservation Clauses

To be read with preliminaries/general conditions, 'Spec C-Z Part 2i – Standard NBS Clauses', BJP & Mann Williams Specifications and in conjunction with all the drawings & Bill of Quantities. Where work is to be undertaken within or adjoining existing structures, supplementary information of a preliminary nature may be required.

C35 SCAFFOLDING:

05 IN GENERAL:
- All scaffolding to comply with current legislation and be capable of being erected to a maximum height of 30m (measured from the ground level to the highest platform) under loading conditions specified under those legislations - BS 1139 1990 and to include:
  Part 1 steel tubes
  Part 2 couplers
  Part 3 pre-fabricated access and working towers
  Part 4 pre-fabricated steel spitheads and trestles
  Part 5 materials, dimensions, design loads and safety requirements for service and working scaffolds made of pre-fabricated elements.
- BS 5973 Code of Practice for access and working scaffolds and special scaffold structures in steel.

10 DEFINITIONS:
- Pre-fabricated scaffolding: is deemed to include scaffolds in which some or all connections are permanently fixed.
- Scaffold: is deemed to include all braces, ties, horizontal and vertical members.
- Working area: is deemed to cover all platforms, decking, etc. which form a working area and that is capable of supporting a load on its own.
- Platform: to include all pre-fabricated components that are supported and all timber planks supplied separately.
- Anchors: To include those inserted into, or attached to the facade for fastening a tie member.

15 MATERIALS:
- All materials shall have a good resistance to, or be protected against, atmospheric corrosion and shall be free of any impurities and defects which might affect their satisfactory use.
- Welded components should be made in materials other than rimming steel.
- Steel scaffolding to be used in all restoration work to be high standard, well maintained, galvanised steel together with timber scaffolding boards. No rusting parts to be used.
- All scaffolding to be used in stone cleaning or wet work to be of aluminium alloy with timber boards to suit.

20 DESIGN LOADS:
- Scaffolding to be designed to take loadings required by work in hand and calculations to be available for inspection by the Contract Administrator (or Engineer) upon request.

PLATFORMS

30 IN GENERAL:
- The platform and its immediate supports shall be capable of supporting the service loads (universally distributed load, partial and concentrated loads) specified in table 1 of BS 1139, Part 5, 1990 (harmonisation document 1000:1988) and no platform shall have a load bearing capacity lower than that specified for a Class 2 scaffold.

35 LOADINGS:
- The scaffold structure (if erected to a height of 30m) shall be capable of supporting all loads inflicted by weather conditions including wind, snow, rain, etc: and any other loads arising in the scaffold as a result of inaccuracies in its construction.

40 REQUIREMENTS FOR GUARD RAILS:
- A guard rail regardless of its span must be provided and must withstand the point loads described under Section 5.4 BS 1139, Part 5.

41 FACTORS OF SAFETY:
The various parts of the scaffold shall have a safety factor in accordance with the relevant standards listed in the National Annexes.

TYING

50 FIXED ANCHORAGES:
- Fixed anchorages to the existing structure are not permitted
- No putlog connections or building into the facade will be allowed.

51 SELF-SUPPORTING SCAFFOLDS:
- The scaffold shall be designed in such a manner that it can be free standing with no physical connection to any point of the façade/structure and be constructed in such a way as to resist horizontal forces.

55 DISSIPATION OF HORIZONTAL LOADS
All horizontal loads are to be diverted towards the anchorages if the distribution of the loads cannot be made more accurately due to considerations of looseness and rigidity.

56 THE SCAFFOLD shall have sufficient strength to allow it to be erected with, at any level of the facade, a zone of at least 3.8m high in which there are no ties to the facade. This is to ensure that the scaffold has sufficient strength integral in its design to be free standing.

CONNECTIONS

60 GENERAL: Connections between separate parts shall be effective and easy to monitor. They shall be easy to assemble and secure against accidental disconnection.
- When assembled, the horizontal movement (play) between upper and lower components shall not exceed 4mm. The maximum angle of play shall not exceed 5% from the true line.
- Provisions are to be taken to limit the risk of accidental disconnection.

BASE PLATES

70 IN GENERAL:
- The strength and rigidity of the base plates should be adequate to effectively transmit the maximum design loads from the scaffold to the ground.
- The bearing surface shall be as described under Section 9.1 of BS 1139: Part 5 and shall be deemed to cover non-adjustable and adjustable base plates.

WORKING LEVELS

75 SAFETY REQUIREMENTS:
- Platform decking components shall be durable, in good condition and shall have a slip-resistant surface. All components must be securely fitted to prevent lifting by wind or over-turning.
- Gaps between boards shall not exceed 25mm in width and where openings for access are provided within platform area such openings shall be guarded or be capable of being closed up.

76 SIDE PROTECTION:
- Protection must be provided at platform edges consisting of a guard rail and a toe-board at the bottom edge with additional guard protection between the top guard rail and the toe-board to reduce the risk of falling.
- A form of fencing may be provided, being capable of preventing objects from falling, and can either be combined with the guard rail and toe-board, or be an additional or separate component.

80 PRINCIPAL GUARD RAIL:
- Fix a guard rail at a height of 1m +/- 50mm above the level of the platform it is guarding.
- Guards provided to working areas must be incapable of removal except as part of erection or dismantling procedure.

81 TOE-BOARD:
- Fix solid toe-board to finish with its top edge at least 150mm above platform level.
- Toe-board to be fixed to withstand wind loads and loading forces imposed against it.

82 INTERMEDIATE GUARD RAIL
- To be fixed at a height so that the space between the guard rail and the toe-board does not exceed 470mm.

85 FENCING STRUCTURES:
- The space between the material, or any holes within the material, shall not have an area larger than 100mm2, except where one dimension of such is less than 50mm. Scaffolding may incorporate features such as protective screens, boards, mesh or netting as additional protection against falling material or dust.

MATERIALS

100 TUBES
- Tubes used for scaffolding to have been produced by a seamless or welded process, to have a smooth external surface and to be of a circular profile. Their deviation from a straight line shall not exceed 3mm in any one metre.
- Scaffolding poles to be used should be delivered to site in a clean and dry condition and should be protected from rust by some sort of protective coating, ie previously hot dipped galvanising, paint, etc.

105 COUPLERS AND FITTINGS
All couplers and fittings, together with their metallic parts, shall be free from all impurities, defects and rust etc, which might affect their satisfactory use. All bolts and hexagonal nuts shall be of steel and of good quality.

106 PUTLOG couplers ends and fittings will not be allowed.

ACCESS AND WORKING TOWERS

120 IN GENERAL:
STAIRWAYS, LADDERS AND RUNGS to be in good condition and of good standard and all treads, rungs and stiles to be capable of supporting a load of 2Kn at the centre of their span without permanent distortion.
- Ladders to be fixed top and bottom, and at 3.8 metre intervals maximum.

130 ACCESS TO PLATFORMS: Shall be provided by means of a vertical or inclined ladder, contained within, or forming an integral part of, the main structure of the scaffold. Such a ladder shall not be in contact with the ground and shall be securely attached to the structure of the scaffold.
- Intermediate landing places shall be provided at vertical intervals not greater than 9m.
- A removable ladder shall be placed between the ground and the first lift and securely attached to the scaffold structure during working hours. It must be possible to remove this ladder during non-working hours.

C91 ALTERATIONS - SPOT ITEMS - TO EXISTING BUILDINGS

GENERALLY

10 APPLICABILITY: The requirements of this section apply to all alteration work to existing buildings given as spot items in various parts of the schedules/bills.

20 QUALITY OF WORK in spot items to be as described in the relevant other sections of the specification.

30 SUPPORT existing structure as necessary during cutting of new openings or replacement of structural parts. Do not remove supports until new work is strong enough to support the existing structure.

40 PROTECTION OF BUILDING INTERIORS: Protect building interiors exposed to weather during course of alteration work with temporary weather tight enclosures of sufficient size to permit execution of new work and ability to withstand severe weather.

50 MAKING GOOD: Unless otherwise stated make good parts and/or finishes of existing structure disturbed during alterations to match existing.

PRODUCTS/MATERIALS ARISING

60 OWNERSHIP: Products and materials arising from the alteration work are to become the property of the Contractor except where otherwise stated. Remove from site as work proceeds.

61 OWNERSHIP: The following are to remain the property of the Employer. Carefully lift or dismantle and store on site where directed. Protect until items are replaced or removed.
All pews, panelling and joinery items.
Existing cupboards, including glass and ironmongery.

80 INFECTED TIMBER: Where instructed, remove timber affected by fungal/insect attack from the building in a way which will minimise the risk of infecting other parts of the building, and destroy as soon as possible.

90 BURNING ON SITE of materials arising from the work **will not** be permitted.

H79 HOT WORKS:

10 HOT WORK PERMITS:
The Contractor must notify the Architect of work involving naked flame, chemicals etc. and such work may only be carried out by workmen after a permit is signed, hoses/extinguishers put in place, tools to cut-out burning material are to hand and subsequent watching undertaken.

A copy of such a permit is enclosed at the back of this specification.

Once approval has been received, hot work must only be undertaken in the morning, being completed by 1pm, and thoroughly checked prior to completion of work at the end of the day. A second permit, made out for the next day, must be obtained if hot works not completed within the time allowed on first permit.

15 FIRE PRECAUTIONS:
"Hot Work" is prohibited on Historic Building. Dispensation may be given in certain circumstances.

20 DEFINITION:
"Hot Work" is defined as "All operations involving flame, hot air or Arc Welding, and includes the use of cutting equipment, brazing and soldering equipment, blow lamps, bitumen boilers and other equipment producing heat or having naked flames".

30 Suitable and sufficient adequately maintained fire extinguishers must be provided by the Contractor for use during any building or associated works that relate to 'Hot Works'.

35 Smoking is not permitted at any time on or within the existing building.

40 Burning of rubbish is not permitted. All rubbish must be removed from the site for burning elsewhere.

45 Burning of paint, using blow lamps or electrical element burners, is not permitted.

50 Combustible materials must not be stored on site without prior arrangement with the CA & the Client.

Z12 PRESERVATIVE/ FIRE RETARDANT TREATMENT

10 TREATMENT APPLICATION
- Timing: After cutting and machining timber, and before assembling components.
- Processor: Licensed by manufacturer of specified treatment solution.
- Certification: For each batch of timber provide a certificate of assurance that treatment has been carried out as specified.

20 COMMODITY SPECIFICATIONS
- Standard: Current edition of the Wood Protection Association (WPA) publication 'Industrial wood preservation specification and practice'.

25 PRESERVATIVE TREATMENT SOLUTION STRENGTHS/ TREATMENT CYCLES
- General: Select to achieve specified service life and to suit treatability of specified wood species.

30 COPPER-ORGANIC PRESERVATIVE TREATMENT
- Solution:
  - Manufacturer: To contractor's choice.
  - Colour: Neutral.
  - Application: High pressure impregnation.
- Moisture content of wood:
  - At time of treatment: Not more than 28%.
  - After treatment: Timber to be surface dry before using.

40 ORGANIC SOLVENT PRESERVATIVE TREATMENT
- Solution:
  - Manufacturer: To contractor's choice.
  - Application: Double vacuum + low pressure impregnation, or immersion.
- Moisture content of wood:
  - At time of treatment: As specified for the timber/ component at time of fixing.
  - After treatment: Timber to be surface dry before use.

70 MAKING GOOD TO PROTECTION TREATMENT ON SITE
- Fire retardant/ preservative solution: Compatible with off-site treatment.
- Application: In accordance with preservative manufacturer's recommendations.

Z41 HYDRAULIC LIME MORTARS

GENERALLY

105 MORTAR PREPARATIONS and other particular requirements are specified in clause 325.

110 GENERALLY:
All materials to be subject to the approval by the CA. Care to be taken to exclude all contact from oils from similar materials. Any such materials so affected will be condemned and must be removed from site immediately.

MORTAR MIXES

210 HYDRAULIC LIME: SAND MORTAR: Mass bedding for random rubble walling.
Background: New or existing sub-base
Mortar mix: 1:2½ hydraulic lime and equal proportions of well graded fine and coarse mixed sand.
Colour types to be agreed.

MATERIALS

250 LIMES:
In general - for the use in pointing -to conform to BS EN 459-1. (for building limes - testing and standards).

251 HYDRAULIC LIME: - in the dry form, bagged and to be used and obtained from a reputable source. Hydraulic lime shall be from delivered in sealed bags, kept in dry conditions and used as soon as possible. Note that there is no current BS or other standard applicable to this product and the contractor must satisfy himself by appropriate test that the product as delivered is fit for its purpose.
Manufacturer: The Cornish Lime Co. Brims Park, Old Callywith Road, BODMIN, Cornwall, PL31 2DZ – Tel: 01208 79779
- Product reference: ST. Astier NHL 3.5

OR
Manufacturer: Ty-Mawr Lime Ltd. Unit 12, Brecon Enterprise Park, Brecon, Powys. LD3 8BT – Tel: 01874 611350. Email - tymawr@lime.org.uk

Alternative suppliers are as follows:

Singleton Birch Ltd, Melton Ross Quarries, BARNETBY, Lincolnshire, DN38 6AE
Tel:- 01652 - 686000
Castle Cement Ltd, Park Square, 3160 Solihull Parkway, Birmingham Business Park, Birmingham, BS37 7YN. – Tel: 0121 606 4000

(Various types available – exact specification to be agreed with Architect before ordering).

260 WATER:
To be clean and free from impurities - organic matter in suspension or solution - and to be obtainable from a public supply.

270 SAND:
Type: Sharp, well-graded. Chardstock sand or other well graded sand approved by the CA.
- To conform to BS 882 for clean pit or fresh water sand and to BS 1200 for building sand from natural sources and all to be from one source.
- To be dry and clean, free from all salts and impurities, adherent coatings and harmful materials such as lumps, soft or flaky particles, shale coal, mice silts, alkali, organic matter etc.
- To be fine, hard sand to certain grades, varying uniformly in sizes from 0.06 mm down, all to pass through a 1.18 mm sieve, before placing in pressure pots for use in sand blasting:- sieves to be to BS 410, giving recommendation on different sizes of aggregate.
  - Generally round sand to be used for hard brittle substrates.
  - Generally angular sand to be used for soft resilient deposits.
- Sand for face-work mortar to be from one source, different loads to be mixed if necessary to ensure consistency of colour and texture.
- When a range is specified (e.g. 1:1:5-6) use lower proportion of sand for Grade G sands and higher proportion for Grade S.

271 COLOURING: Stone dust or self coloured sands may be used to give colour to the lime mortar to match an existing mortar, or to reach an agreed look. No chemical colouring agents will be allowed.

275 POZZOLANS: **No pozzolans** are to be used with hydraulic lime.

290 ADMIXTURES:
Do **not use** in mortar unless specified or approved.
Do **not use** calcium chloride or any admixtures containing calcium chloride.
Admixtures, if specified, to be to BS 4887.

PREPARATIONS & USES

300 MAKING LIME: SAND MORTARS GENERALLY
- Mixing: Mix materials thoroughly to uniform consistency, free from lumps.
- Contamination: Prevent intermixing with other materials, including cement. Keep plant and banker boards clean.

320 MAKING MORTAR:
- Batching: By volume. Use clean and accurate gauge boxes or buckets.
- Measure materials accurately by column using clean gauge boxes. Proportions of mixes are for dry sand; allow for bulking if sand is damp.
- Mix ingredients thoroughly to a consistence suitable for the work and free from lumps. Do not over-mix mortars containing air-entraining admixtures.
- Keep plant and boards clean at all times.
- Contamination: Prevent intermixing with other materials, including cement. Keep plant and banker boards clean.

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

330 STORAGE OF MORTAR MATERIALS
- Sands and aggregates: Keep different types/ grades in separate stockpiles on hard, clean, free-draining bases.
- Bagged dry-form hydraulic lime: Store raised off the ground in dry conditions.

BEDDING MORTARS

400 PREVIOUS WORK: Wherever previous bedding has been carried out in cement, this is to be cleaned off face of stone or tile and re-bedded in a proper manner, all as specified.

405 BEDDING GENERALLY:
- General: Do not use frozen materials or lay on frozen surfaces.
- Do not lay stone, clay tiles, etc: in hydraulic lime mortars at or below 5°C and falling or below 3°C and rising.
- Temperature of substrate during curing must be above freezing until mortar is hardened.
- Newly placed work must be protected at all times from:
  - Rain and snow.
  - Drying out too rapidly in hot conditions and in drying winds.

410 LAYING:
- Dampen absorbent stones, clay tiles, etc: in warm weather to reduce suction. Do not soak.
- Mortar beds:
  - Laying: Full bed of mortar with all joints and voids filled.
  - Appearance: Neat and consistent.
- Appearance and bonding: Achieve a consistent overall appearance and good bond.
- Cleanliness: Keep facework clean. Rubbing to remove marks and stains not permitted.

412 MASS BEDDING GENERALLY: to stone random rubble walling.
- Thoroughly clean and dampen before bedding.
- Orientation for natural bed of stones:
  - In plain walling: Horizontal.
  - Coping and projecting stones: Vertical and at right angles to wall face.
- Appearance: Distribute different shapes & sizes evenly throughout the face of the wall.
- Vertical joints: Long continuous joints prohibited.
- Setting out: Achieve satisfactory junctions and joints with adjoining or built-in elements and components.

415 STIPPLE FINISH TO JOINTS
- General: After the initial set, stippled with a stiff brush to remove laitance and give a coarse texture.

REPOINTING

420 REPOINTING: In addition to the pointing of the new work, include for raking out and re-pointing all open and loose joints in existing surfaces, all as detailed in Schedule of Works.

425 PREVIOUS WORK: Wherever previous pointing and making good has been carried out in cement, this is to be cut away and re-pointed in a proper manner, all as specified and to include the temporary pointing applied during washing down. Hand saw to be used for raking fine joints.

430 BRUSHING DOWN:
Thoroughly brush down the stone face as indicated, with stiff bristle or nylon brushes to remove all loose, decayed or friable material *adjoining the joints* to be pointed.

435 RAKING OUT:
Generally joints are to be raked out to a depth of 40 mm. Raking tools/chisels shall never be more than three-quarters the width of the joint that they are raking out. Power tools and pecking hammers are not to be used.

436 REMOVAL OF CEMENT:
Where old cement mortar has to be removed (and this is only to be done specifically when requested by the Architect) it is to be carefully cut out by using sharp, narrow chisels which are narrower than the width of the joint and where the shank of the tool is no wider than the cutting edge (this is to

avoid stress on the edges of the brick or stones). No picks, pecking hammers or mechanical tools are to be used for cutting out mortar unless the technique is discussed with and agreed by the Architect before commencement. Either blow or vacuum clean all grooves and thoroughly dampen joints immediately prior to pointing.

440 POINTING:
Point up all holes and open joints and any ledges that could hold water by carefully packing with the specified mortar, fully filing the entire void. Finish mortar flush with the surface of the stone and finish (when the mortar has set to an appropriate hardness) by brushing the mortar with the bristles of a stiff churn brush to expose the large grit aggregate and finish just behind the stone face.

Do not allow the mortar to dry out too quickly and cover with damp Hessian if required (to cut out bright sun and wind) to prevent cracking. Should spalling occur, areas affected should be raked out and refinished.

PATCH POINTING

450 DEFECTIVE MORTAR JOINTS:
Where it is not proposed to remove all the cement mortar pointing, only remove that which is loose and/or can be removed without causing any damage to the adjoining stonework. The decay occurs where the original mortar, either cement or original lime, has fallen out or is loose and about to fall out, putting the stone adjoining at risk and allowing the possibility of water entering the wall.

Sound lime pointing, flush with stone face, is to remain. For this reason the new mortar must match the original. Allow for taking samples and having them analysed if needed.

455 PREPARATION OF JOINTS:
Rake out the defective joints, as clause 285, to form a rectangular groove, using hand tools only. Brush or scrape with a wood or plastic spatula the edges of the stone adjourning the joint to remove friable surface that would prevent the mortar adhering. Blow the joints clean.

460 REPOINTING:
Thoroughly dampen and repoint the joints compacting the lime mortar thoroughly, as stated in clause 295. Provide a weathering fillet on any projecting stone ledges as part of this work. Protect the mortar against premature drying, as clause 295, and any possibility of frost until it is sufficiently carbonated to be secure.

Any point that subsequently cracks or becomes loose is to be raked out and repointed (including failure during the defects liability period).

WEATHERED BEDS

470 PREPARATION OF FILLING:
Brush or scrape out with a wood or plastic spatula the soft beds in the stone that have eroded back, to remove the friable surface. Remove dust, thoroughly dampen and pack with mortar made with selected sand and stone dust as required to blend with the colour of the stone being repaired. Try to avoid feather edging or mortar applied too thinly which will quickly weather off. It is not advisable to build the stone back to the original face in all circumstances and the exact depth of the mortar filling is to be discussed with the Architect in each area. The object is to protect the soft areas of stone to reduce the future weathering back. Protect the mortar against premature drying and the possibility of frost until sufficiently carbonated.

Z42 SEALANTS IN CONSERVATION

105 IN GENERAL: to cover all sealants, such as repointing, lime putty, mason putty, etc.: used in conservation and restoration of buildings.

110 SEALANT TYPES: As specified in the relevant section.

120 SUITABILITY OF JOINTS: Before commencing, check that:
– Joint dimensions are within limits specified for the sealants.
– Surfaces are smooth and undamaged.
– Preparatory work which must be done before assembly of the joint has been carried out.
Inform CA if joints are not suitable to receive sealant and submit proposals for rectification.

130 PREPARING JOINTS:
– Remove all temporary coatings, tapes, loosely adhering material, dust, oil, grease and other contaminants which may affect bond.
– Backing strip, bond breaker, primer: Types recommended for the purpose by sealant manufacturer.
– Insert backing strips and/or bond breaker tape into joint leaving no gaps.
– Cover adjacent surfaces with masking tape to prevent staining and protect surfaces which would be difficult to clean if smeared with primer or sealant.

140 APPLYING SEALANTS:
– Do not apply to damp surfaces (unless recommended otherwise) to surfaces affected by ice or snow or during inclement weather. Do not heat joints to dry them or raise the temperature.
Fill joints completely, leaving no gaps, excluding all air and ensuring firm adhesion of sealant to required joint surfaces. Tool the sealant to a neat, slightly concave profile unless specified otherwise.

APPENDIX A

HOT WORKS PERMIT (TEMPLATE)

Hot work permit

Issuing organisation **Permit no.**

A. Proposal

To be completed by the person responsible for carrying out the work.

Building

Exact location of proposed work

Nature of hot work to be undertaken

The above location has been examined and the precautions listed on the reverse side of this form have been complied with as indicated.

Signed | Name (BLOCK CAPITALS)

Date | Position

Contractor (where applicable)

B. Agreement

To be completed by the fire officer or other nominated person.

This Hot work permit is issued subject to the following conditions:

Time of issue permit **Time of expiry of permit***

A final fire check of the work area shall be periodically undertaken for one hour immediately after the hot works have been completed and before the permit is signed off.

Additional conditions required.

Signed | Name (BLOCK CAPITALS)

Date | Position

C. Fire watch

To be completed by a member of staff or contractor responsible for the work before returning this permit to the issuer.

The work area and all adjacent areas to which sparks and heat might have spread (such as floors below and above, and areas on other sides of walls) have been inspected and found to be free of fire following completion of the work.

Time inspection completed

This must be filled in one hour after hot works have been completed.

Signed | Name (BLOCK CAPITALS)

Date | Position

Contractor (where applicable)

* It is not desirable to issue permits for protracted periods. Fresh permits should be issued, for example, where work extends from morning to afternoon. Note: where work is being carried out by a contractor, the issuer of the permit should ensure that the contractor has complied with the requirements prior to work being carried out, and should be satisfied that the area is free of fire when work is completed.

Risk details

1. The person nominated to authorise hot work, normally the fire or safety officer, must have experience or training in the problems associated with hot work and be of suitable status to ensure compliance with the procedures.
2. Prior to the commencement of work, a Hot work permit should be obtained from the authorised person. This should be done on every occasion that hot work of any type is undertaken within or upon the fabric of established buildings or any structures or plant in the open. This procedure should also apply to construction sites once fitting out has commenced, and to all buildings which are being refurbished.
3. A Hot work permit should not be issued without considering the significance of any other permits to work in the vicinity, or adjacent manufacturing processes which may involve the use of flammable liquids or gases.
4. A Hot work permit should also be issued for a specific task that is undertaken in a clearly identified area. Hot work permits should not be issued for protracted periods. Separate Hot work permits should be issued for work which extends from morning to afternoon periods.
5. Before completing the first part of the Hot work permit, the person responsible for carrying out the work should complete the checklist shown below to indicate that fire protection measures are adequate, suitable precautions have been taken and the equipment to be used is safe.
6. If the person authorised to issue the Hot work permit is not satisfied with the arrangements, further measures may be requested, and any additional conditions should be entered in the space provided in section B. The time within which a final fire check should be made is also specified in section B. This will normally be an hour after the time of expiry of the Hot work permit, when work must be complete. If trained personnel will not be available to make this check (for example in the case of a permit issued late in the day) work must not be commenced.
7. The Hot work permit should be completed in duplicate, with the top copy being handed to the person responsible for carrying out the work. The second copy should be retained by the issuer who may wish to inspect the site of the work or instigate spot checks to ensure that conditions have been met and that work is complete before the Hot work permit expires.
8. The completed form should be returned to the issuer and retained for future reference.

Hot work permit checklist

Can this job be avoided? Is there a safer way?
(The person carrying out the check should tick the appropriate boxes.)

Fire protection

1. Where sprinklers are installed they are operative. ☐
2. A trained person not directly involved with the work will provide a continuous fire watch during the period of hot work and for at least one hour after it ceases, in the work area and those adjoining areas to which sparks and heat may spread. ☐
3. At least two suitable extinguishers or a hose reel are immediately available. Both the personnel undertaking the work and providing the fire watch are trained in their use. ☐
4. Personnel involved with the work and providing the fire watch are familiar with the means of escape and method of raising the alarm/calling the Fire Brigade. ☐

Precautions within 10 metres (minimum) of the work

5. Combustible materials have been cleared from the area. Where materials cannot be removed, protection has been provided by non-combustible or purpose-made blankets, drapes or screens. ☐
6. Flammable liquids have been removed from the area. ☐
7. Floors have been swept clean. ☐
8. Combustible floors have been covered with overlapping sheets of non-combustible material or wetted and liberally covered with sand. All openings and gaps (combustible floors or otherwise) are adequately covered. ☐
9. Protection (non-combustible or purpose-made blankets, drapes or screens) has been provided for: ☐
   - Walls, partitions and ceilings of combustible construction or surface finish
   - All holes and other openings in walls, partitions and ceilings through which sparks could pass.
10. Combustible materials have been moved away from the far side of walls or partitions where heat could be conducted, especially where these incorporate metal. ☐
11. Enclosed equipment (tanks, containers, dust collectors etc.) has been emptied and tested, or is known to be free of flammable concentrations of vapour or dust. ☐

Equipment

12. Equipment for hot work has been checked and found to be in good repair. ☐
13. Gas cylinders are sited at least 3 metres from the burner and have been properly secured in a vertical position and fitted with a regulator and flashback arrestor. ☐
14. Hazardous materials will be removed from the hot works location as soon as work is completed. ☐
15. Any lit tar boilers will not be left unattended. ☐

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