

## **Specification of Works for Repairs and Refurbishment**

**At**

**13 Station Road  
Southwold,  
Suffolk,  
IP18 6AX**

**On behalf of**

**Southwold Town Council**

**Ref: 1908002**

**Date/Version: July 2020 Version A - Tender**

**Prepared by**

North & Hawkins Ltd  
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**1.0**

**PRELIMINARIES**

**1.1**

**JCT371A10 PROJECT PARTICULARS**

**110 THE PROJECT**

- Name: 13 Station Road, Southwold – Repairs and refurbishment
- Nature: External repairs and replacement of windows and doors. Internal stripping out and complete refurbishment including new services.
- Location: 13 Station Road, Southwold, Suffolk, IP18 6AX.
- Length of contract: Ten weeks.

**120 EMPLOYER (CLIENT)**

- Name: Southwold Town Council
- Address: Town Hall, Market Place, Southwold, IP18 6EF.
- Contact: Lesley Beevor.
- Telephone: n/a.
- E-mail: n/a.

**130 PRINCIPAL CONTRACTOR (CDM)**

- Name: TBA.
- Address: TBA.
- Contact: TBA.
- Telephone: TBA.
- E-mail: TBA.

**140 ARCHITECT/ CONTRACT ADMINISTRATOR**

- Name: North & Hawkins Ltd.
- Address: 2 Redwell St, Norwich, NR2 4SN.
- Contact: Tom North.
- Telephone: 01603 397055.

- E-mail: tom@northandhawkins.co.uk.

#### 150 PRINCIPAL DESIGNER

- Name: North & Hawkins Ltd.
- Address: 2 Redwell St, Norwich, NR2 4SN.
- Contact: Tom North.
- Telephone: 01603 397055.
- E-mail: tom@northandhawkins.co.uk.

### JCT371A11 TENDER AND CONTRACT DOCUMENTS

#### 110 TENDER DRAWINGS

- The tender drawings are: North & Hawkins Drawings 1908002/S01 – existing plans, elevations and site plan and 1908002/BR01 – proposed plans and elevations:
- Horizon Structures Drawing layout and connection details.

#### 120 CONTRACT DRAWINGS

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

#### 160 PRECONSTRUCTION INFORMATION

- Format: The Preconstruction information is described in these preliminaries in Section A34. It refers to information given elsewhere in the preliminaries and other tender documents.

### JCT371A12 THE SITE/ EXISTING BUILDINGS

#### 110 THE SITE

- Description: end of terrace Victorian residence, two storey principal property including rear projection. Single storey rear annexe. Small front paved garden and rear enclosed yard. Access to rear yard via gate to shared driveway.

#### 120 EXISTING BUILDINGS ON/ ADJACENT TO THE SITE

- Description: Attached residential use. Architects offices to rear via shared driveway.

#### 140 EXISTING UTILITIES AND SERVICES

- Drawings: (Information shown is indicative only): Dowl rod drainage report and survey available.
- Other information: Gas, electric and water and drainage to the front of the property. Locations not identified.

#### 170 SITE INVESTIGATION

- Not available.

#### 200 ACCESS TO THE SITE

- Description: No employer restrictions.
- Limitations: No parking on the site is available. The contractor is not to obstruct the shared driveway to the flank of the building.

#### 220 USE OF THE SITE

- General: Do not use the site for any purpose other than carrying out the Works.
- Limitations: None.

#### 250 SITE VISIT

- Assessment: Ascertain the nature of the site, access thereto and all local conditions and restrictions likely to affect the execution of the Works.
- Arrangements for visit: CA.

### JCT371A13 DESCRIPTION OF THE WORK

#### 110 PREPARATORY WORK BY OTHERS

- Works: Carried out under a separate contract and completed before the start of work on site for this Contract.
- Description: None.

## 120 THE WORKS

- Description: Repairs to chimney flashings, replacement of windows and doors throughout other than front elevation to be repaired and secondary glazing installed, Helifix repairs and repointing to masonry. Structural alterations and replacement of defective elements. Stripping out of premises generally and laying new floor throughout ground floor area. Complete refurbishment including new surfaces, ceiling all linings, joinery, decorations and fitting out.

## JCT371A20 JCT MINOR WORKS BUILDING CONTRACT WITH CONTRACTOR'S DESIGN (MWD)

### JCT MINOR WORKS BUILDING CONTRACT WITH CONTRACTOR'S DESIGN

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

## THE RECITALS

### First - THE WORKS AND THE CONTRACT ADMINISTRATOR

- The work comprises: Repairs to chimney flashings, replacement of windows and doors throughout other than front elevation to be repaired and secondary glazing installed, Helifix repairs and repointing to masonry. Structural alterations and replacement of defective elements. Stripping out of premises generally and laying new floor throughout ground floor area. Complete refurbishment including new surfaces, ceiling all linings, joinery, decorations and fitting out.. Architect/ Contract Administrator: See clause A10/140.

## Second - CONTRACTOR'S DESIGNED PORTION

- The Works include the design and construction of:
  - Above ground drainage including pipework sizing, traps waste and connections.
  - Hot and cold water distribution alterations and extensions including all WRAS requirements.
  - Electrical installation and distribution complete including power and lighting installations.

## Third - CONTRACT DOCUMENTS

- Contract drawings: As listed in clause A11/120.

Contract documents: The following have been prepared which show and describe the work to be done A specification.

## Fourth - PRICED DOCUMENTS

- Documents to be priced or provided by the Contractor: Contract specification.

## THE ARTICLES

### 3 - ARCHITECT/ CONTRACT ADMINISTRATOR

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

### 4 and 5 - PRINCIPAL DESIGNER/ PRINCIPAL CONTRACTOR

- Principal Designer: See clause A10/150.
- Principal Contractor: See clause A10/130.

## CONTRACT PARTICULARS

### Fifth Recital and Schedule 2 - BASE DATE

- Base date: 1<sup>st</sup> August 2020.

#### Fifth Recital and clause 4.2 - CONSTRUCTION INDUSTRY SCHEME (CIS)

- Employer at base date is not a 'contractor' for the purposes of the CIS.

#### Sixth Recital - CDM REGULATIONS

- The project is not notifiable.

#### Article 7 - ARBITRATION

- Article 7 and Schedule 1 apply.

#### Clause 2.3 - COMMENCEMENT AND COMPLETION

- Works Commencement date: mid-October 2020 (subject to instruction by mid-September 2020).
- Date for Completion: within 10 weeks of commencement.

#### Clause 2.9 - LIQUIDATED DAMAGES

- At the rate of £200 per calendar week, applied pro-rata thereto.

#### Clause 2.11 - RECTIFICATION PERIOD

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

#### Clause 4.3 - INTERIM PAYMENTS

- Interim Valuation Dates:
  - The first Interim Valuation Date is: Four weeks from commencement.
  - Thereafter at intervals of: One calendar month.
- Payments due prior to practical completion:
  - Percentage of total value of the work etc.: 95 per cent.
- Payments becoming due on or after practical completion:
  - Percentage of the total amount to be paid:

97½ per cent.

**Clause 5.3 - CONTRACTOR'S PUBLIC LIABILITY  
INSURANCE - INJURY TO PERSONS OR PROPERTY**

- The required level of cover for any one occurrence or series of occurrences arising out of one event:
  - Not less than: £5m.

**Clauses 5.4A, 5.4B and 5.4C - INSURANCE OF THE  
WORKS, ETC. - ALTERNATIVE PROVISIONS**

- Clause 5.4B applies.
- Where clause 5.4.A or 5.4B applies. percentage to cover professional fees: 15 per cent.
- Where clause 5.4.C applies:
  - insurance arrangements - details of the required policy or policies: n/a.

**THE CONDITIONS**

**SECTION 1: DEFINITIONS AND INTERPRETATION**

**SECTION 2: CARRYING OUT THE WORKS**

**SECTION 3: CONTROL OF THE WORKS**

**SECTION 4: PAYMENT**

**SECTION 5: INJURY, DAMAGE AND INSURANCE**

**SECTION 6: TERMINATION**

**SECTION 7: SETTLEMENT OF DISPUTES**

**EXECUTION**

- The Contract: Will be executed under hand.

**CONTRACT GUARANTEE BOND**

- Contract Guarantee Bond: None required.

**COLLATERAL WARRANTIES:**

- None required.



## JCT371A30 TENDERING/ SUBLETTING/ SUPPLY

### MAIN CONTRACT TENDERING

#### 110 SCOPE

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

#### 145 TENDERING PROCEDURE

- General: In accordance with NBS Guide to Tendering for Construction Projects.
- Errors: Alternative 1 is to apply.

#### 160 EXCLUSIONS

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

#### 170 ACCEPTANCE OF TENDER

- 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.
- Costs: No liability is accepted for any cost incurred in the preparation of any tender.

#### 190 PERIOD OF VALIDITY

- Period: After submission or lodgement, keep tender open for consideration (unless previously withdrawn) for not less than 3 months.
- Date for possession/ commencement: See section A20.

### PRICING/ SUBMISSION OF DOCUMENTS

#### 250 PRICED DOCUMENTS

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

### 310 TENDER

- General: Tenders must include for all work shown or described in the tender documents as a whole or clearly apparent as being necessary for the complete and proper execution of the Works.

### 520 DESIGN DOCUMENTS

- Scope: Include the following in the Contractor's Proposals:
  - Design drawings: yes.
  - Technical information: as applicable.
- Submit: With tender.

### 530 SUBSTITUTE PRODUCTS

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

### 570 OUTLINE CONSTRUCTION PHASE HEALTH AND SAFETY PLAN

- Content: Submit the following information within one week of request:

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

- Monitoring procedures to ensure compliance with site rules, selection and management procedures, health and safety standards and statutory requirements.
- Review procedures to obtain feedback.

## JCT371A31 PROVISION, CONTENT AND USE OF DOCUMENTS

### DEFINITIONS AND INTERPRETATIONS

#### 110 DEFINITIONS

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

#### 120 COMMUNICATION

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

#### 130 PRODUCTS

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

#### 135 SITE EQUIPMENT

- Definition: All appliances or things of whatsoever nature required in or about the construction for

completion of the Works but not materials or other things intended to form or forming part of the Permanent Works.

- Includes: Construction appliances, vehicles, consumables, tools, temporary works, scaffolding, cabins and other site facilities.

#### 140 DRAWINGS

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

#### 145 CONTRACTOR'S CHOICE

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

#### 150 CONTRACTOR'S DESIGN

- 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

- Meaning: Submit information in response to specified requirements.

#### 160 TERMS USED IN SPECIFICATION

- Remove: Disconnect, dismantle as necessary and take out the designated products or work and associated accessories, fixings, supports, linings and bedding materials. Dispose of unwanted materials. Excludes taking out and disposing of associated pipework, wiring, ductwork or other services.
- Fix: Receive, unload, handle, store, protect, place and fasten in position and disposal of waste and surplus packaging including all labour, materials and site equipment for that purpose.
- Supply and fix: As above, but including supply of products to be fixed. All products to be supplied

and fixed unless stated otherwise.

- Keep for reuse: Do not damage designated products or work. Clean off bedding and jointing materials. Stack neatly, adequately protect and store until required by the Employer/ Purchaser or for use in the Works as instructed.
- Make good: Execute local remedial work to designated work. Make secure, sound and neat. Excludes redecoration and/ or replacement.
- Replace: Supply and fix new products matching those removed. Execute work to match original new state of that removed.
- Repair: Execute remedial work to designated products. Make secure, sound and neat. Excludes redecoration and/ or replacement.
- Refix: Fix removed products.
- Ease: Adjust moving parts of designated products or work to achieve free movement and good fit in open and closed positions.
- Match existing: Provide products and work of the same appearance and features as the original, excluding ageing and weathering. Make joints between existing and new work as inconspicuous as possible.
- System: Equipment, accessories, controls, supports and ancillary items, including installation, necessary for that section of the work to function.

#### 170 MANUFACTURER AND PRODUCT REFERENCE

- Definition: When used in this combination:
  - Manufacturer: The firm under whose name the particular product is marketed.
  - Product reference: The proprietary brand name and/ or reference by which the particular product is identified.
- Currency: References are to the particular

product as specified in the manufacturer's technical literature current on the date of the invitation to tender.

## 200 SUBSTITUTION OF PRODUCTS

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

## 210 CROSS REFERENCES

- Accuracy: Check remainder of the annotation or item description against the terminology used in the section or clause referred to.
- Related terminology: Where a numerical cross-

reference is not given the relevant sections and clauses of the specification will apply.

- Relevant clauses: Clauses in the referred to specification section dealing with general matters, ancillary products and execution also apply.
- Discrepancy or ambiguity: Before proceeding, obtain clarification or instructions.

## 220 REFERENCED DOCUMENTS

- Conflicts: Specification prevails over referenced documents.

## 230 EQUIVALENT PRODUCTS

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

## 240 SUBSTITUTION OF STANDARDS

- 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.
- Before ordering: Submit notification of all such substitutions.
- 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

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

## 260 SIZES

- General dimensions: Products are specified by



their co-ordinating sizes.

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

## DOCUMENTS PROVIDED ON BEHALF OF THE EMPLOYER

### 410 ADDITIONAL COPIES OF DRAWINGS/ DOCUMENTS

- Additional copies: Issued on request and charged to the Contractor.

### 440 DIMENSIONS

- Scaled dimensions: Do not rely on.

### 450 MEASURED QUANTITIES

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

### 460 THE SPECIFICATION

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

## DOCUMENTS PROVIDED BY CONTRACTOR/ SUBCONTRACTORS/ SUPPLIERS

### 600 CONTRACTOR'S DESIGN INFORMATION

- General: Complete the design and detailing of parts of the Works as specified.
- Provide:

- Production information based on the drawings, specification and other information.
- Liaison to ensure coordination of the work with related building elements and services.
- Master programme: Make reasonable allowance for completing design/ production information, submission (including information relevant to the CDM Regulations), comment, inspection, amendment, resubmission and reinspection.
- Information required: As design portions.
  - Format: electronic.
  - Number of copies: 1.
- Submit: Within one week of request.

#### 630 TECHNICAL LITERATURE

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

#### 640 MAINTENANCE INSTRUCTIONS AND GUARANTEES

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

### JCT371A32 MANAGEMENT OF THE WORKS

#### GENERALLY

#### 110 SUPERVISION

- General: Accept responsibility for coordination,

supervision and administration of the Works, including subcontracts.

- Coordination: Arrange and monitor a programme with each subcontractor, supplier, local authority and statutory undertaker, and obtain and supply information as necessary for coordination of the work.

#### 120 INSURANCE

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

#### 125 PROFESSIONAL INDEMNITY INSURANCE

- Provide and maintain insurance in respect of Contractor Designed Works:
  - Level of cover: Relates to claims or series of claims arising out of one event.
  - Period of insurance for these purposes: one year.
- Amount of indemnity required: £1m.
- Limit of cover for pollution/ contamination claims (If none is stated, the required level of cover shall be the full amount of the indemnity cover stated): £1m.
- Expiry of required period of CDP Professional Indemnity insurance: six years  
(If no period is selected, the expiry date shall be 6 years from the date of practical completion of the Works).
- Documentary evidence: Submit details before starting work on site and/ or policies and receipts for the insurances required.
  - Format: Electronic PDF.

#### 130 INSURANCE CLAIMS

- Notice: If any event occurs which may give rise to any claim or proceeding in respect of loss or

damage to the Works or injury or damage to persons or property arising out of the Works, immediately give notice to the Employer, the person named in clause A10/140 and the Insurers.

- Failure to notify: Indemnify the Employer against any loss, which may be caused by failure to give such notice.

#### 150 OWNERSHIP

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

### PROGRAMME/ PROGRESS

#### 210 PROGRAMME

- Master programme: Immediately when requested and before starting work on site submit in an approved form a master programme for the Works, which must include details of:
  - Planning and mobilisation by the Contractor
  - Subcontractor's work.
  - Running in, adjustment, commissioning and testing of all engineering services and installations.
  - Work resulting from instructions issued in regard to the expenditure of provisional sums.
  - Work by others concurrent with the Contract.
- Submit one copy.

#### 260 SITE MEETINGS

- General: Site meetings will be held to review progress and other matters arising from administration of the Contract.

- Frequency: Every two weeks.
- Location: On site.
- Accommodation: Ensure availability at the time of such meetings.
- Attendees: Attend meetings and inform subcontractors and suppliers when their presence is required.
- Chairperson (who will also take and distribute minutes): Contract Administrator.

### 310 EXTENSIONS OF TIME

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

### CONTROL OF COST

#### 420 REMOVAL/ REPLACEMENT OF EXISTING WORK

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

#### 430 PROPOSED INSTRUCTIONS

- Estimates: If a proposed instruction requests an estimate of cost, submit without delay and in any case within seven days.

#### 440 MEASUREMENT

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

#### 470 PRODUCTS NOT INCORPORATED INTO THE WORKS

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

### JCT371A33 QUALITY STANDARDS/ CONTROL

#### STANDARDS OF PRODUCTS AND EXECUTIONS

##### 110 INCOMPLETE DOCUMENTATION

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

Contract documents: Omissions or errors in description and/ or quantity shall not vitiate the Contract nor release the Contractor from any obligations or liabilities under the Contract.

##### 120 WORKMANSHIP SKILLS

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

### 130 QUALITY OF PRODUCTS

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

### 135 QUALITY OF EXECUTION

- Generally: Fix, apply, install or lay products securely, accurately, plumb, neatly and in alignment.
- Colour batching: Do not use different colour batches where they can be seen together.
- Dimensions: Check on-site dimensions.
- Finished work: Without defects, e.g. not damaged, disfigured, dirty, faulty, or out of tolerance.
- Location and fixing of products: Adjust joints open to view so they are even and regular.

### 140 COMPLIANCE

- Compliance with proprietary specifications: Retain on site evidence that the proprietary product specified has been supplied.
- Compliance with performance specifications: Submit evidence of compliance, including test reports indicating:
  - Properties tested.
  - Pass/ fail criteria.

- Test methods and procedures.
- Test results.
- Identity of testing agency.
- Test dates and times.
- Identities of witnesses.
- Analysis of results.

#### 150 INSPECTIONS

- Products and executions: Inspection or any other action must not be taken as approval unless confirmed in writing referring to:
  - Date of inspection.
  - Part of the work inspected.
  - Respects or characteristics which are approved.
  - Extent and purpose of the approval.
  - Any associated conditions.

#### 160 RELATED WORK

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

#### 170 MANUFACTURER'S RECOMMENDATIONS/ INSTRUCTIONS



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

#### 180 WATER FOR THE WORKS

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

#### SAMPLES/ APPROVALS

##### 210 SAMPLES

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

##### 220 APPROVAL OF PRODUCTS

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

required.

### 230 APPROVAL OF EXECUTION

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

## ACCURACY/ SETTING OUT GENERALLY

### 320 SETTING OUT

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

### 330 APPEARANCE AND FIT

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

### 340 CRITICAL DIMENSIONS

- Critical dimensions: Set out and construct the

Works to ensure compliance with the tolerances stated.

- Location: Detailed on drawings As Specified.

### 350 LEVELS OF STRUCTURAL FLOORS

- Maximum tolerances for designed levels to be:
  - Floors to be self-finished, and floors to receive sheet or tile finishes directly bedded in adhesive: +/- 10 mm.
  - Floors to receive dry board/ panel construction with little or no tolerance on thickness: +/- 10 mm.
  - Floors to receive mastic asphalt flooring/ underlays directly: +/- 10 mm.
  - Floors to receive mastic asphalt flooring/ underlays laid on mastic asphalt levelling coat(s): +/- 15 mm.
  - Floors to receive fully bonded screeds/ toppings/ beds: +/- 15 mm.
  - Floors to receive unbonded or floating screeds/ beds: +/- 20 mm.

### 360 RECORD DRAWINGS

- 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

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

### 420 WATER REGULATIONS/ BYELAWS NOTIFICATION

- Requirements: Notify Water Undertaker of any work carried out to or which affects new or existing services and submit any required plans,

diagrams and details.

- Consent: Allow adequate time to receive Undertaker's consent before starting work. Inform immediately if consent is withheld or is granted subject to significant conditions.

#### 430 WATER REGULATIONS/ BYELAWS CONTRACTOR'S CERTIFICATE

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

#### 435 ELECTRICAL INSTALLATION CERTIFICATE

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

#### 445 SERVICE RUNS

- General: Provide adequate space and support for services, including unobstructed routes and fixings.
- Ducts, chases and holes: Form during construction rather than cut.
- Coordination with other works: Submit details of

locations, types/ methods of fixing of services to fabric and identification of runs and fittings.

#### 450 MECHANICAL AND ELECTRICAL SERVICES

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

#### SUPERVISION/ INSPECTION/ DEFECTIVE WORK

##### 525 ACCESS

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

##### 540 DEFECTS IN EXISTING WORK

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

##### 560 TESTS AND INSPECTIONS

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

#### 580 CONTINUITY OF THERMAL INSULATION

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

#### 590 RESISTANCE TO PASSAGE OF SOUND

- Method: Specified constructions.
- Compliance: Submit notifications ,
  - Copies: Incorporate in the Building Manual.

#### 610 DEFECTIVE PRODUCTS/ EXECUTIONS

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

#### WORK AT OR AFTER COMPLETION

##### 710 WORK BEFORE COMPLETION

- General: Make good all damage consequent upon the Works.

Temporary markings, coverings and protective

wrappings: Remove unless otherwise instructed.

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

#### 720 SECURITY AT COMPLETION

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

#### 730 MAKING GOOD DEFECTS

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

#### 740 HIGHWAY/ SEWER ADOPTION

- Work to be adopted under the Highways Act, Section 38, or the Roads (Scotland) Act, Section 16 to 18, or the Water Industry Act, Section 104: Description: Any Public Sewer created.
- Work for adoption must be:
  - Completed by the Contractor to the satisfaction of the Highway/ Sewer Authorities before the certificate stating the Works are complete is issued.
  - Subject to a Defects Liability/ Rectification Period of 12 months (see Appendix to the Contract/ Contract Particulars).
  - Maintained during the Defects Liability/ Rectification Period, including making good of damage due to reasonable wear and tear occurring during the Period and cleaning at the end of the Period, all to the satisfaction of the Highway/ Sewer Authorities.

#### JCT371A34 SECURITY/ SAFETY/ PROTECTION

#### SECURITY, HEALTH AND SAFETY

#### 140 CONSTRUCTION PHASE HEALTH AND SAFETY PLAN

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

#### 150 SECURITY



- Protection: Safeguard the site, the Works, products, materials, and any existing buildings affected by the Works from damage and theft.
- Access: Take all reasonable precautions to prevent unauthorized access to the site, the Works and adjoining property.
- Special requirements: None.

#### 160 STABILITY

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

### PROTECT AGAINST THE FOLLOWING

#### 340 POLLUTION

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

#### 350 PESTICIDES

- Use: Not permitted.

#### 360 NUISANCE

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

#### 370 ASBESTOS CONTAINING MATERIALS

- Duty: Report immediately any suspected materials discovered during execution of the Works.

- Do not disturb.
- Agree methods for safe removal or encapsulation.

### 371 DANGEROUS OR HAZARDOUS SUBSTANCES

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

### 380 FIRE PREVENTION

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

### 390 SMOKING ON SITE

- Smoking on site: Not permitted.

### 400 BURNING ON SITE

- Burning on site: Not permitted.

### 410 MOISTURE

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

### 420 INFECTED TIMBER/ CONTAMINATED MATERIALS

- Removal: Where instructed to remove material

affected by fungal/ insect attack from the building, minimize the risk of infecting other parts of the building.

- Testing: carry out and keep records of appropriate tests to demonstrate that hazards presented by concentrations of airborne particles, toxins and other micro organisms are within acceptable levels.

#### 430 WASTE

- Includes: Rubbish, debris, spoil, surplus material, containers and packaging.
- General: Minimize production. Prevent accumulations. Keep the site and Works clean and tidy.
- Handling: Collect and store in suitable containers. Remove frequently and dispose off site in a safe and competent manner:
  - Non-hazardous material: In a manner approved by the Waste Regulation Authority.
  - Hazardous material: As directed by the Waste Regulation Authority and in accordance with relevant regulations.
- Recyclable material: Sort and dispose at a Materials Recycling Facility approved by the Waste Regulation Authority.
- Voids and cavities in the construction: Remove rubbish, dirt and residues before closing in.
- Waste transfer documentation: Retain on site.

#### 440 ELECTROMAGNETIC INTERFERENCE

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

#### 460 POWER ACTUATED FIXING SYSTEMS

- Use: Not permitted.

#### 470 INVASIVE SPECIES

- General: Prevent the spread of species (e.g. plants or animals) that may adversely affect the site or Works economically, environmentally or ecologically.
- Special precautions: None.
- Duty: Report immediately any suspected invasive species discovered during execution of the Works.
  - Do not disturb.
  - Agree methods for safe eradication or removal.

#### PROTECT THE FOLLOWING

##### 510 EXISTING SERVICES

- Confirmation: Notify all service authorities, statutory undertakers and/ or adjacent owners of proposed works not less than one week before commencing site operations.
- Identification: Before starting work, check and mark positions of utilities/ services. Where positions are not shown on drawings obtain relevant details from service authorities, statutory undertakers or other owners.
- Work adjacent to services:
  - Comply with service authority's/ statutory undertaker's recommendations.
  - Adequately protect, and prevent damage to services: Do not interfere with their operation without consent of service authorities/ statutory undertakers or other owners.
- Identifying services:
  - Below ground: Use signboards, giving type and depth;

- Overhead: Use headroom markers.
- Damage to services: If any results from execution of the Works:
  - Immediately give notice and notify appropriate service authority/ statutory undertaker.
  - Make arrangements for the work to be made good without delay to the satisfaction of service authority/ statutory undertaker or other owner as appropriate.
  - Any measures taken to deal with an emergency will not affect the extent of the Contractor's liability.
- Marker tapes or protective covers: Replace, if disturbed during site operations, to service authority's/ statutory undertakers recommendations.

#### 520 ROADS AND FOOTPATHS

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

#### 530 EXISTING TOPSOIL/ SUBSOIL

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

#### 540 RETAINED TREES/ SHRUBS/ GRASSED AREAS

- Protection: Preserve and prevent damage,

except those not required.

- Replacement: Mature trees and shrubs if uprooted, destroyed, or damaged beyond reasonable chance of survival in their original shape, as a consequence of the Contractor's negligence, must be replaced with those of a similar type and age at the Contractor's expense.

#### 550 RETAINED TREES

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

#### 570 EXISTING WORK

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

#### 580 BUILDING INTERIORS

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

#### 620 ADJOINING PROPERTY

- Agreement: Access to and/ or use of the following has been agreed with adjacent owners:

Details to follow.

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

#### 625 ADJOINING PROPERTY RESTRICTIONS

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

#### 630 EXISTING STRUCTURES

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

#### 640 MATERIALS FOR RECYCLING/ REUSE

- Duty: Sort and prevent damage to stated

products or materials, clean off bedding and jointing materials and other contaminants.

- Storage: Stack neatly and protect until required by the Employer or for use in the Works as instructed.

## JCT371A35 SPECIFIC LIMITATIONS ON METHOD/ SEQUENCE/ TIMING

### 130 METHOD/ SEQUENCE OF WORK

- Specific Limitations: Include the following in the programme:

Phased removal of existing floor allowing for sufficient structural integrity to be maintained.

### 170 WORKING HOURS

- Specific limitations: None.

## JCT371A36 FACILITIES/ TEMPORARY WORK/ SERVICES

### GENERALLY

### 110 SPOIL HEAPS, TEMPORARY WORKS AND SERVICES

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

### ACCOMMODATION

### 230 TEMPORARY ACCOMMODATION

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

### SERVICES AND FACILITIES



#### 410 LIGHTING

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

#### 420 LIGHTING AND POWER

- Supply: Electricity from the Employer's mains may be used for the Works as follows:
  - Metering: Free of charge.
  - Point of supply: tba.
  - Available capacity: tbc.
  - Frequency: 50 Hz.
  - Phase: tbc.
  - Current: Alternating.
- Continuity: The Employer will not be responsible for the consequences of failure or restriction in supply.

#### 430 WATER

- Supply: The Employer's mains may be used for the Works as follows:
  - Metering: Free of charge.
  - Source: tbc.
  - Location of supply point: tbc.
  - Conditions/ Restrictions: tbc.
- Continuity: The Employer will not be responsible for the consequences of failure or restriction in supply.

#### 440 TELEPHONES

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

## JCT371A37 OPERATION/ MAINTENANCE OF THE FINISHED WORKS

### GENERALLY

#### 110 THE BUILDING MANUAL

- Responsibility: The Contractor
- Content: Obtain and provide comprehensive information for owners and users of the completed Works. Include an overview of the main design principles and describe key components and systems within the finished Works, so affording a complete understanding of the Works, including all buildings and their systems to enable efficient and safe operation and maintenance.
- Specific requirements: All design fixtures and services.
- Format: electronic.
- Number of copies: 1.
- Delivery to: Contract Administrator. by (date) Two weeks following Completion.

#### 115 THE HEALTH AND SAFETY FILE

- Responsibility: the Principal Designer.
- Content: Obtain and provide the following information: As directed.
- Format: electronic
- Delivery to: Principal Designer By (date): Two weeks following Completion.

#### 155 CONTENT OF THE BUILDING MANUAL

- General: Details of the property, the parties, fire safety strategy, operational requirements and constraints of a general nature.
- Building fabric: Design criteria, maintenance details, product details, and environmental and

trafficking conditions.

- 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.
- Documentation: Guarantees, warranties, maintenance agreements, test certificates and reports.

#### 160 PRESENTATION OF BUILDING MANUAL

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

#### JCT371A40 CONTRACTOR'S GENERAL COST ITEMS: MANAGEMENT AND STAFF

#### JCT371A41 CONTRACTOR'S GENERAL COST ITEMS: SITE ACCOMMODATION

#### JCT371A42 CONTRACTOR'S GENERAL COST ITEMS: SERVICES AND FACILITIES

#### JCT371A43 CONTRACTOR'S GENERAL COST ITEMS: MECHANICAL PLANT

#### JCT371A44 CONTRACTOR'S GENERAL COST ITEMS: TEMPORARY WORKS

#### JCT371A50 WORK/ PRODUCTS BY/ ON BEHALF OF THE EMPLOYER

JCT371A53 WORK BY STATUTORY  
AUTHORITIES/ UNDERTAKERS

120 WORK BY STATUTORY UNDERTAKERS

- Item: Supply of new electricity and water connections into trenches to be formed by Contractor..
- Description of work: Services supplies.
- Provisional Sum: Include None - Allow for attendance.
- Allow for general attendance.

JCT371A54 PROVISIONAL WORK/ ITEMS

2.0

## PREAMBLES

### C20 Demolition

#### 5 SURVEY

- Scope: Before starting deconstruction/ demolition work, examine available information, and carry out a survey of:
  - the structure or structures to be deconstructed/ demolished,
  - the site on which the structure or structures stand, and
  - the surrounding area.
- Report and method statements: Submit, describing:
  - Form, condition and details of the structure or structures, the site and the surrounding area.
 

Extent: Whole building .
  - Type, location and condition of features of historical, archaeological, geological or ecological importance.
  - 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/ or dust generated during deconstruction/ demolition.
  - Identity and location of services above and below ground, including those required for the Contractor's use, and arrangements for their disconnection and removal.
  - Form and location of flammable, toxic or hazardous materials, including lead-based paint, and proposed methods for their removal and disposal.

- Form and location of materials identified for reuse or recycling, and proposed methods for removal and temporary storage.
- Proposed programme of work, including sequence and methods of deconstruction/ demolition.
- Details of specific pre-weakening required.
- Arrangements for protection of personnel and the general public, including exclusion of unauthorized persons.
- Arrangements for control of site transport and traffic.
- Special requirements: Disposal methods for gypsum-based products.

### 30 SERVICES DISCONNECTION ARRANGED BY CONTRACTOR

- Responsibility: Before starting deconstruction/ demolition arrange with the appropriate authorities for disconnection of services owned by those authorities and removal of associated fittings and equipment.

### 35 LIVE FOUL AND SURFACE WATER DRAINS

- General: Protect drains and fittings still in use. Keep free of debris and ensure normal flow during deconstruction/ demolition work.
- Damage: Make good damage arising from deconstruction/ demolition work. Leave clean and in working order at completion of deconstruction/ demolition work.

### 45 SERVICES TO BE RETAINED

- Damage to services: Give notice, and notify relevant service authorities and/ or owner/ occupier regarding damage arising from deconstruction/ demolition.
- Repairs to services: Complete as directed, and to

the satisfaction of the service authority or owner.

#### 50 WORKMANSHIP

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

#### 55 SITE HAZARDS

- Precautions: Prevent fire and/ or explosion caused by gas and/ or vapour from tanks, pipes, etc.
- Dust: Reduce by periodically spraying with an appropriate wetting agent, or contain.
  - Lead dust: Submit method statement for control, containment and clean-up regimes.
- Site operatives and general public: Protect from vibration, dangerous fumes and dust arising during the course of the Works.

#### 60 ADJOINING PROPERTY

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

#### 71 DANGEROUS OPENINGS

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

#### 76 ASBESTOS-CONTAINING MATERIALS – UNKNOWN OCCURENCES

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

#### 78 UNFORESEEN HAZARDS

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

#### 80 OPEN BASEMENTS, ETC

- Temporary support: Leave adequate buttress walls or provide temporary support to basement retaining walls up to ground level.
- Safety: Make the remaining sections of retaining and buttress walls safe and secure.
- Water movement: Make holes in basement floors to allow water drainage. Provide a 600 mm diameter hole for every 10 m<sup>2</sup>.

#### 95 RECYCLED MATERIALS

- Materials arising from deconstruction/ 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.



## G12 Isolated structural metal members

### 10 STEEL SECTIONS AND PLATE

- Section properties and dimensions: To BS 4-1, BS EN 10055, BS EN 10056 or BS EN 10210-2, as appropriate.
  - Steel: To BS EN 10025-2 or BS EN 10210-1, as appropriate.
- Grade: As advised by Structural Engineer.
- Surface condition: Free from heavy pitting and rust, burrs, sharp edges and flame cutting dross.
- Cuts and holes: Accurate and neat.
- Welding: Metal arc method to BS EN 1011-2.
  - Welded joints: Fully fused, with mechanical properties not less than those of the parent metal.
  - Site welding: Obtain approval.

### 20 SHOP PRIMING GENERALLY

- Preparation: To BS EN ISO 12944-4. Remove fins, burrs, sharp edges and weld spatter, clean out crevices
  - Surface finish: Manually cleaned to BS EN ISO 8501-1, grade St 2.
  - Prepared surfaces: Keep in a dry atmosphere and apply first coating without delay.
- Priming:
  - Primer: One coat zinc phosphate modified alkyd, minimum dry film thickness 40 micrometres.
  - Application: To BS EN ISO 12944-7.

### 40 INSTALLATION

- Accuracy: Members positioned true to line and level using, if necessary, steel packs of sufficient area to allow full transfer of loads to bearing surfaces.
- Fixing: Use washers under bolt heads and nuts.
  - Tapered washers: Provide under bolt heads and nuts bearing on sloping surfaces. Match taper to slope angle and align correctly.

## G20 Carpentry/ timber framing/ first fixing

### 2 TIMBER PROCUREMENT

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

### 5 STRUCTURAL SOFTWOOD FOR STRUCTURAL USE GENERALLY

- Grading standard: To BS 4978, BS EN 14081-1, or other national equivalent and so marked.
  - Timber of a target thickness less than 100 mm and not specified for wet exposure: Graded at an average moisture content not exceeding 20% with no reading being

in excess of 24% and clearly marked as 'DRY' or 'KD' (kiln dried).

- Timber graded undried (green) and specified for installation at higher moisture contents: Clearly marked as 'WET' or 'GRN'.
- Strength class to BS EN 338: As drawings.
- Treatment: Organic solvent impregnation to NBS section Z12 and Wood Protection Association Commodity Specification C8, Service life: 40 years.

### 30 SELECTION AND USE OF TIMBER

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

### 32 NOTCHES, HOLES AND JOINTS IN TIMBER

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

### 35 PROCESSING TREATED TIMBER

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

### 40 MOISTURE CONTENT

- Moisture content of wood and wood based products at time of installation: Not more than:
  - Covered in generally unheated spaces:

24%.

- Covered in generally heated spaces:  
20%.
- Internal in continuously heated spaces:  
20%.

#### 43 BOLTED JOINTS

- Bolt spacings (minimum): To BS EN 1995-1-1, section 8.5.
- 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.
- 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.
- Bolt tightening: So that washers just bite the surface of the timber. Ensure that at least one complete thread protrudes from the nut.
  - Checking: At agreed regular intervals.  
Tighten as necessary.

#### 45 FRAMING ANCHORS

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Material/ finish: Stainless steel.
- Fasteners: Galvanized or sherardized square twist nails.
  - Size: Not less than size recommended by anchor manufacturer.
- Fixing: Secure using not less than the number of nails recommended by anchor manufacturer.

#### 50 ADDITIONAL SUPPORTS

- 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.

- Material properties: Timber to be of adequate size and have the same treatment as adjacent timber supports.

#### 55 JOISTS GENERALLY

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

#### 60 JOISTS ON HANGERS

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

#### 65 JOIST HANGERS GENERAL USE

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Material/ finish: Hot dip galvanized steel plate.
- Size: To suit joist, design load and crushing strength of supporting construction.

#### 70 TRIMMING OPENINGS

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

#### 95 STRUTTING TO FLOOR JOISTS

- Type: One of the following:
  - Herringbone strutting: At least 38 x 38 mm softwood.

- Solid strutting: At least 38 mm thick softwood and at least three quarters of joist depth.
- Proprietary metal strutting: n/a.
- Fixing: Between joists as follows:
  - Joist spans of 2.5 to 4.5 m: One row at centre span.
  - Joist spans over 4.5 m: Two rows equally spaced.
  - Not projecting beyond top and bottom edges of joists.
- Outer joists: Blocked solidly to perimeter walls.

### K10 Gypsum board dry linings/ partitions/ ceilings

#### 15 LINING ON TIMBER STUD EXTERNAL WALLS, STUD PARTITIONS, DOT & DAB LININGS

- Substrate: various.
- Linings: 12.5 mm plasterboard, Wallboard or Soundboard as specified. 2x layers as stated..
  - Recycled content: Not applicable.
- Fixing: Screws at 300 mm centres.
- Finishing: Skim coat plaster.
  - Primer/ Sealer: Not required.
  - Accessories: Metal beads/ stops recommended by board manufacturer.

#### 35 WALL LINING ON METAL FRAMING WHERE REQUIRED FOR ACOUSTIC LININGS

- Manufacturer: As specified.
  - Product reference: As specified.
- Substrate: Brickwork.
- Cavity between substrate and back of lining:

varies.

- Framing centres: 600 mm.
  - Bracket centres: 600 mm.
- Insulation: as specified.
  - Recycled content: Not applicable.
- Linings: 12.5 mm plasterboard.
  - Recycled content: Not applicable.
  - Screw centres: 300 mm.
- Finishing: Skim coat plaster.
  - Primer/ Sealer: As recommended by board manufacturer for improved moisture resistance.
  - Accessories: Metal beads/ stops recommended by board manufacturer.

#### 65 DRY LINING GENERALLY

- General: Use fixing, jointing, sealing and finishing materials, components and installation methods recommended by board manufacturer.
- Standard:
  - Gypsum plasterboard to BS EN 520.
  - Gypsum fibre board to BS EN 15283-2.
  - Evidence of compliance: All sheets to be CE marked. Submit Declaration of Performance (DoP).
- Cutting gypsum boards: Neatly and accurately without damaging core or tearing paper facing. Minimize cut edges.
- Two layer boarding: Stagger joints between layers.
- Finishing: Neatly to give flush, smooth, flat surfaces free from bowing and abrupt changes of level.

#### 67 SKIM COAT PLASTER FINISH

- Plaster type: As recommended by board manufacturer.
  - Thickness: 2-3 mm.
- Joints: Fill and tape except where coincident with metal beads.
- Finish: Tight, matt, smooth surface with no hollows, abrupt changes of level or trowel marks.

#### 69 INSTALLING BEADS/ STOPS

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

#### 70 ADDITIONAL SUPPORTS

- Framing: Accurately position and securely fix to give full support to:
  - Partition heads running parallel with, but offset from main structural supports.
  - Fixtures, fittings and services.
  - Board edges and lining perimeters.

#### 75 NEW WET LAID BASES

- Dpcs: Install under full width of partitions/ freestanding wall linings.

#### 85 MINERAL WOOL INSULATION

- Fitting insulation: Closely butted joints and no gaps. Prevent slumping.
- Electrical cables overlaid by insulation: Size accordingly.

#### 87 SEALING GAPS AND AIR PATHS



- Sealing: Apply sealant to perimeter abutments and around openings as a continuous bead with no gaps.
  - Gaps between floor and underside of gypsum board: After sealing, fill with joint compound.

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

### 10 WOOD-BASED SHEETS GENERALLY

- Standard: To BS EN 13986.
  - Evidence of compliance: All sheets to be CE marked. Submit Declaration of Performance (DoP).

### 30 PARTICLEBOARD FLOORING UPPER FLOORS

- Substrate: timber joists.
  - Additional supports: None.
- Flooring: Particleboard to BS EN 312, Type P5.
  - Thickness: 22 mm.
  - Edges: Tongued and grooved all edges.
  - Recycled content: Contractor's choice.
  - Setting out: Long edges running across joists. End joints central over joists and staggered.
  - Fixing to joists:
 

Fasteners: 50 mm x 8 gauge wood screws into pilot holes.

Fixing centres (maximum): 200 mm around floor perimeter and along short edges of each board; 400 mm along intermediate supports.
- Joint adhesive: PVA to BS EN 204, class D3.
- Expansion provision: 10 mm clear expansion gap around floor perimeter of floor area and any

upstands.

#### 67 ADDITIONAL SUPPORTS

- Additional studs, noggings/ dwangs (Scot) and battens:
  - Provision: In accordance with board manufacturer's recommendations and as follows:
 

Tongue and groove jointed rigid board areas: To all unsupported perimeter edges.

Butt jointed rigid board areas: To all unsupported edges.
  - Size: Not less than 50 mm wide and of adequate thickness.
  - Treatment (where required): As for adjacent timber supports.

#### 85 FIXING GENERALLY

- Timing: Building to be weathertight before fixing boards internally.
- Moisture content of timber supports (maximum): 18%.
- Fasteners: Evenly spaced in straight lines and in pairs across joints.
  - Distance from edge of board: Sufficient to prevent damage.

#### 90 OPEN JOINTS

- Perimeter joints and joints between boards: Free from plaster, mortar droppings and other debris.
- Temporary wedges/ packings: Remove on completion of board fixing.

#### L10 Windows/ Rooflights/ Screens/ Louvres

#### 5 TIMBER PROCUREMENT

- Timber (including timber for wood-based

products): Obtained from well-managed forests and/ or plantations in accordance with:

- The laws governing forest management in the producer country or countries.
- International agreements such as the Convention on International Trade in Endangered Species of wild fauna and flora (CITES).
- Documentation: Provide either:
  - Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied.
  - Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood-based products.
- Certification scheme: Forest Stewardship Council (FSA).
  - Other evidence: None.

## 15 WOOD WINDOWS

- Standard: To BS 644.
- Manufacturer: A firm currently registered under a third party quality assurance scheme.
- Timber: Generally to BS EN 942.
  - Species: Softwood.
  - Appearance class: J10 for glazing beads, drip mouldings and the like. J40 or better for all other members.
  - Moisture content on delivery: 12-19%.
- Preservative treatment: Organic solvent as section Z12 and WPA Commodity Specification C5; Desired service life 30 years.
- Finish as delivered: Full paint system as section M60.

- Thermal performance (U-value maximum): 1.4 W/m<sup>2</sup>K.
- Glazing details: As drawings.
  - Beading: External.
- Ironmongery/ Accessories: As stated.
- Fixing: Screwed to timber framing.
  - Fastener spacing: When not predrilled or specified otherwise, position fasteners not more than 150 mm from ends of each jamb, adjacent to each hanging point of opening lights, and at maximum 450 mm centres.

#### 80 IRONMONGERY

- 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.
- Checking/ adjusting/ lubricating: Carry out at completion and ensure correct functioning.

#### 90 REPLACEMENT WINDOW INSTALLATION

- Standard: To BS 8213-4.

#### L20 Doors/ shutters/ hatches

#### 10 TIMBER PROCUREMENT

- Timber (including timber for wood-based products): Obtained from well-managed forests and/ or plantations in accordance with:
  - The laws governing forest management in the producer country or countries.
  - International agreements such as the Convention on International Trade in Endangered Species of wild fauna and flora (CITES).

- Documentation: Provide either:
  - Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied.
  - Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood-based products.
- Certification scheme: Forest Stewardship Council (FSA).
- Other evidence: None.

### 30 WOOD DOORS As Door Schedule

- Materials: Generally to BS EN 942.
  - Species: As supplied.
  - Appearance class: As supplied.
- Panels: Not applicable.
- Assembly:
  - Adhesive: PVAC to BS EN 204, Class D4.
  - Joinery workmanship: As section Z10.
  - Accuracy: To BS 4787-1.
- Preservative treatment: Organic solvent as section Z12 and WPA Commodity Specification C5; Desired service life: 30 years.
- Moisture content on delivery: As supplied.
- Finish as delivered: Primer and undercoat, as section M60.
- Glazing/ Infill details: Not applicable.
  - Manifestation: Not required.
  - Beading: Not required.
- Thermal performance (U-value maximum): Manufacturer's standard.

- Other requirements: None.

#### 70 FIRE AND SMOKE RESISTANCE

- 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.
- Components and assemblies will be marked to the relevant product standard and/ or third party certification rating.

#### 75 FIRE RESISTING/ SMOKE CONTROL DOORS/ DOORSETS

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

#### 85 FIXING IRONMONGERY GENERALLY

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

#### M10 Cement based levelling/ wearing screeds

#### 7 PROPRIETARY QUICK DRYING LEVELLING SCREEDS WHERE SPECIFIED

Substrate: Cast concrete slab.

- Screed manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Screed construction: Unbonded on dpm.

- Thickness:
  - Nominal: 75mm.
  - Maximum: 75mm.
- Mix:
  - Cement: Manufacturer's standard.
  - Proportions (cement:sand):  
Manufacturer's standard.
- Finish: Smooth floated finish, as clause 70.
  - To receive: Flooring by others.

#### 45 AGGREGATES AND CEMENTS

- Sand: To BS EN 13139.
  - Grading limits: In accordance with BS 8204-1, Table B.1.
- Coarse aggregates:
  - Standard: To BS EN 12620.
- Cement:
  - Cement types: In accordance with BS 8204-1, clause 5.1.3.

#### 47 ADMIXTURES

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

#### 50 MIXING

- Water content: Minimum necessary to achieve full compaction.
- Mixing: Mix materials thoroughly to uniform consistency in a suitable forced action mechanical mixer.

#### 52 COMPACTION

- General: Compact thoroughly over entire area.

- 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

- Laying screeds: Lay continuously using 'wet screeds' between strips or bays. Minimize defined joints.

#### 70 SMOOTH FLOATED FINISH

- Finish: Even texture with no ridges or steps.

#### 90 CURING

- Curing period (minimum): As soon as screed has set sufficiently, closely cover with polyethylene sheeting for period recommended by screed manufacturer.
- Drying after curing: Allow screeds to dry gradually.

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

#### 25 CARPETING GENERALLY

- Base: New / Existing timber deck and boards.
  - Preparation: Remove existing carpeting.
- Fabricated underlay: None.
- Carpet underlay: Cellular rubber.
  - Manufacturer: Contractor's choice.
  - Product reference: Not applicable.
  - Recycled content: Contractor's choice.
- Underlay adhesive (and primer if recommended by manufacturer): As recommended by supplier.
- Carpet to BS EN 1307: Loop pile.
  - Manufacturer: Not applicable.



Product reference: Not applicable.

- Recycled content: Contractor's choice.
- Width: To suit.
- Colour/ pattern: TBC.
- Carpet adhesive (and primer if recommended by manufacturer): As advised.

#### 45 EXISTING FLOOR COVERING REMOVED

- Substrate: Clear of covering and as much adhesive as possible. Skim with smoothing compound to give smooth, even surface.

#### 65 LAYING COVERINGS

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

- Manufacturer: Contractor's choice .
  - Product reference: Contractor's choice .
- Material/ finish: Stainless Steel .
- Fixing: Secure (using matching fasteners where

exposed to view) with edge of covering gripped.

#### 85 WASTE

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

#### M60 Painting/ clear finishing

##### 10 EMULSION PAINT TO INTERNAL PLASTERED SURFACES

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Surfaces: All.
  - Preparation: Wash down all surfaces.
- Initial coats: As recommended by manufacturer.
  - Number of coats: 1.
- Undercoats: As recommended by manufacturer.
  - Number of coats: 1.
- Finishing coats: Matt vinyl.
  - Number of coats: 2.

##### 14 EGGSHELL/ SATIN PAINT TO INTERNAL EXPOSED SOFTWOOD

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Surfaces: Preprimed and sealed and previously decorated.
  - Preparation: Degrease and provide key and Remove existing gloss paint.
- Initial coats: As recommended by manufacturer.
  - Number of coats: 1.

- Undercoats: As recommended by manufacturer.
  - Number of coats: 1.
- Finishing coats:
  - Number of coats: 2.

### 30 PREPARATION GENERALLY

- Standard: In accordance with BS 6150.
- Refer to any pre-existing CDM Health and Safety File and CDM Construction Phase Plan where applicable.
- Risk assessment and method statement for hazardous materials: Prepare for operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
- Preparation materials: Types recommended by their manufacturers and the coating manufacturer for the situation and surfaces being prepared.
- Substrates: Sufficiently dry in depth to suit coating.
- Efflorescence salts, dirt, grease and oil: Remove.
- Surface irregularities: Provide smooth finish.
- Organic growths and infected coatings:
  - Remove with assistance of biocidal solution.
  - Apply residual effect biocidal solution to inhibit regrowth.
- Joints, cracks, holes and other depressions: Fill with stoppers/ fillers. Provide smooth finish.
- Dust, particles and residues from preparation: Remove and dispose of safely.
- Doors, opening windows and other moving parts:

- Ease, if necessary, before coating.
- Prime resulting bare areas.

### 32 PREVIOUSLY COATED SURFACES GENERALLY

- Preparation: In accordance with BS 6150, clause 11.5.
- Contaminated or hazardous surfaces: Give notice of:
  - Coatings suspected of containing lead.
  - Substrates suspected of containing asbestos or other hazardous materials.
  - Significant rot, corrosion or other degradation of substrates.
- Risk assessment and method statement for hazardous materials: Prepare for operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
- Removing coatings: Do not damage substrate and adjacent surfaces or adversely affect subsequent coatings.
- Loose, flaking or otherwise defective areas: Carefully remove to a firm edge.
- Alkali affected coatings: Completely remove.
- Retained coatings:
  - Thoroughly clean.
  - Gloss coated surfaces: Provide key.
- Partly removed coatings: Apply additional preparatory coats.
- Completely stripped surfaces: Prepare as for uncoated surfaces.

### 37 WOOD PREPARATION

- General: Provide smooth, even finish with lightly

rounded arrises.

- Degraded or weathered surface wood: Take back surface to provide suitable substrate.
- Degraded substrate wood: Repair with sound material of same species.
- Heads of fasteners: Countersink sufficient to hold stoppers/ fillers.
- Resinous areas and knots: Apply two coats of knotting.
- Defective primer: Take back to bare wood and reprime.

### 39 STEEL PREPARATION

- Corrosion and loose scale: Take back to bare metal.
- Residual rust: Treat with a proprietary removal solution.
- Bare metal: Apply primer as soon as possible.

### 41 MASONRY AND RENDERING PREPARATION

- Loose and flaking material: Remove.

### 43 PLASTER PREPARATION

- Nibs, trowel marks and plaster splashes: Scrape off.
- Overtrowelled 'polished' areas: Provide suitable key.

### 45 PREVIOUSLY PAINTED WINDOW FRAMES

- Paint encroaching beyond glass sight line: Remove.
- Loose and defective putty: Remove.
- Putty cavities and junctions between previously painted surfaces and glass: Clean thoroughly.
- Finishing:
  - Patch prime, reputty, as necessary and

allow to harden.

- Seal and coat as soon as sufficiently hard.

#### 50 EXTERNAL POINTING TO EXISTING FRAMES

- Defective sealant pointing: Remove.
- Joint depth: Approximately half joint width; adjust with backing strip if necessary.
- Sealant:
  - Manufacturer: Contractor's choice.  
  
Product reference: Contractor's choice.
  - Preparation and application: As section Z22.

#### 55 EXISTING GUTTERS

- Dirt and debris: Remove from inside of gutters.
- Defective joints: Clean and seal with suitable jointing material.
- Suspected hazardous materials: submit method statement.

#### 61 COATING GENERALLY

- Application standard: In accordance with BS 6150, clause 9.
- Conditions: Maintain suitable temperature, humidity and air quality.
- Surfaces: Clean and dry at time of application.
- Thinning and intermixing: Not permitted unless recommended by manufacturer.
- Priming coats: Apply as soon as possible on same day as preparation is completed.
- Finish:
  - Even, smooth and of uniform colour.
  - Free from brush marks, sags, runs and

other defects.

- Cut in neatly.

- Doors, opening windows and other moving parts:  
Ease before coating and between coats.

#### 65 CONCEALED JOINERY SURFACES

- General: After priming, apply additional coatings to surfaces that will be concealed when component is fixed in place.
  - Components: External door frames.
  - Additional coatings: One undercoat.

#### 70 EXTERNAL DOORS

- Bottom edges: Prime and coat before hanging.

#### 75 BEAD GLAZING TO COATED WOOD

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

#### 80 LINSEED OIL PUTTY GLAZING

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

### N11 Domestic kitchen fittings, furnishings and equipment

#### 10 FITTED BASE UNITS AND WALL UNITS

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Dimensions: To BS EN 1116.

- Surface finishes: To BS 6222-3.
- Doors and drawer fronts:
  - Material: Solid wood.
  - Finish and colour: TBC.
  - Edges: Solid wood.
- Side panels, plinths and shelves:
  - Material: Solid wood .
  - Finish and colour: TBC.
  - Edges: Solid wood.
- Accessories: Legs and plinths.

#### 20 WORKTOPS

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Material: Laminate covered particle board.
- Dimensions: 38mm.
- Exposed edges: Laminate moulded.
- Support: As required.

#### 30 SINKS, TAPS, TRAPS AND WASTES

- Sinks:
  - Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
  - Configuration: Sink with drainer.
  - Material: Stainless steel .
    - Colour and finish: Cromed steel.
- Tap/ chainstay/ overflow holes: One tap hole, centre. and Overflow hole..
- Taps: Mixer.



- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Operation: Lever.
- Wastes: Pop up.
  - Manufacturer: Contractors.
  - Product reference: tbc.
  - Size: To fit sink .
- Traps: Tubular, P type.
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
  - Size: To fit waste.
  - Depth of seal (minimum): 75 mm.
- Accessories: Support brackets.

#### 50 SEALANT

- Standard: To BS EN ISO 11600, class F20 HM.
- Type: One part silicone.
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Colour: To match worktop.

### N13 Sanitary appliances and fittings

#### 10 WC PANS AND FLUSHING ARRANGEMENTS

- Standard: To Defra WC suite performance specification or equivalent approved by the relevant water company.
- Type: Separate cistern.
- Pan: Vitreous china to BS EN 33 and BS EN 997, Class 2, white.

- Seat: To BS 1254 and Kitemarked, colour to match pan.
- Pan connector: To BS 5627, colour to match pan.
- Flushing arrangement: Flushing valve with concealed flush pipe.
- Accessories: Overflow connector.

### 30 WASH BASINS

- Type: Wall hung.
- Taps: Basin mixer.
  - Water supply temperature (maximum): 48°C.
- Wastes: Grated.
- Traps: DN 30 bottle trap, 75 mm seal.
- Accessories: Concealed support frame.

### 40 SHOWER UNITS

- Tray: Acrylic resin to BS EN 14527, Class 2, white.
- Shower fittings: Thermostatic shower mixer, concealed.
  - Water supply temperature (maximum): 48°C.
- Wastes: Grated, top access.
- Traps: DN 40, lift out dip tube type, 75 mm seal.
- Enclosure: Pivoted door.

### 70 INSTALLATION GENERALLY

- 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.
- 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.

## P10 Sundry insulation/ proofing work

### 10 LOFT INSULATION

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Material: Glass wool to BS EN 13162.
- Recycled content: Contractor's choice.
- Depth/ Thickness: 300mm.
- Installation: To BS 5803-5.

### 15 INSULATION FITTED BETWEEN RAFTERS

- Manufacturer: Celotex.
  - Product reference: As drawings.
- Material: Expanded polystyrene to BS EN 13163.
- Recycled content: Submit proposals.
- Thickness: As drawings.
- Installation requirements:
  - Joints: Butted, no gaps.
  - Fasteners: Used where necessary to prevent slumping.
  - Air space above insulation: Unobstructed.
  - Eaves ventilation: Unobstructed.

## P12 Fire stopping systems

### EXECUTION

#### 62 EXECUTION GENERALLY

- Gaps: Seal gaps between building elements and services, to provide fire resistance and resist the passage of smoke.

- Adjacent surfaces: Prevent overrun of sealant or mortar on to finished surfaces.

#### 64 APPLYING INTUMESCENT FOAM

- New joints: Remove builder's debris, mortar droppings, grease, and other contaminants.
- Old joints: Clean and remove existing sealant from each joint.
- Priming: Lightly moisten substrate with water.
- Application: Fill joint to approximately half its depth, and allow foam to expand to face of joint.
- Trimming: Trim excess foam to give a neat, flush appearance.

#### 65 APPLYING INTUMESCENT MORTAR

- Sequence: Install mortar after services are permanently installed.
- Loose dust and combustible materials: Remove from the opening.
- Shuttering: Install suitable shuttering panels to the faces of the opening.
- Temperature: Do not apply mortar when it could be damaged by frost.
- Powder:water ratio: 2:1 for trowel grade by volume.
- Mortar cure: Do not disturb mortar before final set has taken place.
- Shuttering: Remove after mortar has cured.

#### 66 INSTALLING MINERAL WOOL BATTS

- Installing batts: Fit tight into void between the penetrating services and the surrounding construction to form a solid barrier.
  - Brackets: Impale batts on proprietary pressed steel brackets at 500 mm maximum centres and not greater than

250 mm from ends of batts..

Bracket fixing: as manufacturers  
recommendation.

- Face of batts: Flush with the surface of wall, floor or soffit.
- Joints between batts: Closed butt joints; bed together with vermiculite based adhesive.
- Gaps between services and barrier: Seal with fire resisting sealant.

### 73 APPLYING SEALANTS GENERALLY

- Application: As section Z22.

## COMPLETION

### 91 CLEANING

- Masking tapes: Remove.
- Cleaning: Clean off splashes and droppings. Wipe down finishes.

## P20 Unframed isolated trims/ skirtings/ sundry items

### 10 SOFTWOOD SKIRTINGS LININGS FRAMES AND ARCHITRAVES

- Quality of wood and fixing: To BS 1186-3.
  - Species: Contractor's choice.
  - Class: Contractors choice.
- Moisture content at time of fixing: 9 -13%.
- Preservative treatment: Not required.
- Fire rating: Not applicable.
- Profile: Pencil rounded edges.
  - Finished size: 19 x 70 mm.
- Finish as delivered: Prepared and primed as section M60.

- Fixing: Plugged, and screwed at ??? centres.

### 35 MEDIUM DENSITY FIBREBOARD WINDOW BOARDS

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Standard: To BS EN 622-5.
  - Type: MDF.
  - Formaldehyde class: To BS EN 622-1, Class E1.
- Fire rating: Not applicable.
- Thickness: 19mm.
- Edges: Chamfered.
- Finish: Prepared and primed as M60.
- Recycled content: Submit proposals.
- Support/ Fixing: Fix to softwood grounds with lost head nails at 600 mm centres.

### 80 INSTALLATION GENERALLY

- Joinery workmanship: As section Z10.
- Metal workmanship: As section Z11.
- Methods of fixing and fasteners: As section Z20.
- Straight runs: To be in one piece, or in long lengths with as few joints as possible.
- Running joints: Location and method of forming to be agreed where not detailed.
- Joints at angles: Mitre, unless shown otherwise.
- Position and level: To be agreed where not detailed.

### P21 Door/ window ironmongery

### 2 QUANTITIES AND LOCATIONS

- Quantities and locations of ironmongery are in

the ironmongery schedule .

- Fixing: As sections L10 and L20.

## Q10 Kerbs/ edgings/ channels/ paving accessories

### 10 PRECAST CONCRETE EDGINGS

- To BS EN 1340.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Recycled content: Contractor's choice.
- Designations: EF Edging, flat top.
- Size (width x height x length): 50 x 150 x 915 mm.
- Special shapes: As required.
- Finish: As cast.
- Colour: Natural.
- Joints: Dry, 2 mm gap..
- Accessories: None.

### 30 DRAINAGE CHANNEL SYSTEM

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Nominal size: 100 mm.
- Joints: Drain unions as required.
- Accessories: Silt boxes, End caps.

### 40 LAYING KERBS, EDGINGS AND CHANNELS

- Cutting: Neat and accurate and without spalling. Form neat junctions.
- Bedding and backing of units: Either of the following: Bedded on mortar laid on hardened concrete base. Bedding mortar allowed to set

and units secured with a continuous haunching of concrete.

- Bedded on fresh concrete races to BS 7533-6, secured with backing concrete cast monolithically with concrete race.
- Concrete for foundations and haunching:
  - Standard: To BS 8500-2.
  - Designated mix: Not less than GEN0 or Standard mix ST1 or better, low workability.
- Mortar bedding: 1:3 cement:sand as section Z21.
  - Bed thickness: 12-40 mm.

#### 45 ACCURACY

- Deviations (maximum):
  - Level:  $\pm 6$  mm.
  - Horizontal and vertical alignment: 3 mm in 3 m.

#### 50 TOOLED MORTAR JOINTS

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

#### 80 REGULARITY OF PAVED SURFACES

- Maximum undulation of (non-tactile) paving surface: 3 mm.
  - Method of measurement: Under a 1 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface).
- Difference in level between adjacent units (maximum):
  - Joints flush with the surface: Twice the joint width (with 5 mm max difference in



level).

- Recessed, filled joints: 2 mm.

Recess depth (maximum): 5 mm.

- Unfilled joints: 2 mm.

- Sudden irregularities: Not permitted.

## S90 Hot and cold water supply systems - domestic

### GENERAL

#### 10 MAINS COLD WATER SUPPLY New supply

- Estimated daily consumption: Submit design and cost proposals.
- Position of incoming mains water supply: First floor front room.
- Pipelines: Copper for general use.
  - Accessories: Submit design and cost proposals.
- Valves: Submit design and cost proposals.
- Insulation: Submit design and cost proposals.
- Sanitary appliances: As drawing.
- Controls: Submit design and cost proposals.
- Accessories: Submit design and cost proposals.
- Completion:
  - Flushing and filling;
  - Testing; and
- Commissioning.

### SYSTEM PERFORMANCE

#### 20 DESIGN OF MAINS COLD WATER SUPPLY AND DIRECT HOT WATER SUPPLY

- Design: Complete the design of the hot and cold

water supply system.

- Standard: To BS EN 806-2, BS 8558 and in accordance with HSE publication 'The control of legionella bacteria in water systems. Approved code of practice and guidance'.
- Proposals: Submit drawings (showing equipment positions and pipeline routes), technical information, calculations and manufacturers' literature.

#### 24 PIPELINE SIZES

- Sizing: Calculate sizes to meet simultaneous demand for the building in accordance with BS 8558. Submit proposals.
- Performance:
  - Water velocity (maximum): 1.3 m/s for hot water and 2.0 m/s for cold water.
  - Filling time (maximum) for cold water storage cistern: tbc.

#### 50 COPPER PIPELINES FOR GENERAL USE

- Standard: To BS EN 1057, Kitemark certified.
- Temper: Half hard R250.
- Finish: Submit proposals.
  - Colour: Natural.
- Wall thickness (nominal):
  - OD 6, 8, 10 and 12 mm: 0.6 mm.
  - OD 15 mm: 0.7 mm.
  - OD 22 and 28 mm: 0.9 mm.
  - OD 35 and 42 mm: 1.2 mm.
- Jointing:
  - Chromium plated: Type A compression fittings to BS EN 1254-2, chromium plated.

- Plain: Integral lead free solder ring capillary fittings to BS EN 1254-1, Kitemark certified.
- Plastics coated: Type A compression fittings to BS EN 1254-2.
- Connections to appliances and equipment: Select from:
  - Compression fittings: To BS EN 1254-2, Kitemark certified.
  - Fittings with threaded ends: To BS EN 1254-4.
- Supports: Compatible with pipe material.

#### 60 VALVES GENERALLY

- Types: Approved for the purpose by local water supply undertaker and of appropriate pressure and/ or temperature ratings.
- Control of valves: Fit with handwheels for isolation and lockshields for isolation and regulation of circuits or equipment.

#### EXECUTION

#### 70 INSTALLATION GENERALLY

- Installation: To BS EN 806-4.
- Performance: Free from leaks and the audible effects of expansion, vibration and water hammer.
- Fixing of equipment, components and accessories: Fix securely, parallel or perpendicular to the structure of the building.
- Preparation: Immediately before installing tanks and cisterns on a floor or platform, clear the surface completely of debris and projections.
- Corrosion resistance: In locations where moisture is present or may occur, provide corrosion resistant fittings/ fixings and avoid contact between dissimilar metals by use of

suitable washers, gaskets, etc.

#### 71 INSTALLING CISTERNS

- Outlet positions: Connect lowest outlets at least 30 mm above bottom of cistern.
- Access: Fix cistern with a minimum clear space of 350 mm above, or 225 mm if the cistern does not exceed 450 mm in any dimension.

#### 72 INSTALLING WARNING/ OVERFLOW PIPES TO CISTERNS

- Difference (minimum) between normal water level and overflow level:
  - Cold water storage cisterns: The greater of 32 mm or the bore of warning pipe.
  - Feed and expansion cisterns: Sufficient to allow 20% increase in the volume of water in the tank, plus 25 mm.
- Vertical distance (minimum) of water supply inlet above overflow level: Bore of warning pipe.
- Fall (minimum): 1 in 10.
- Installation: Support to prevent sagging. Terminate pipes separately in prominent positions with turned down ends. Turn down within the cistern. Terminate 50 mm below normal water level.
- Insulation: Insulate within the building where the pipe is in an uninsulated space and subject to freezing.

#### 73 INSTALLING VENT PIPES OVER CISTERNS

- Route: Install with no restrictions or valves and rising continuously from system connection to discharge over cistern.
- Internal diameter (minimum): 20 mm.

#### 79 PIPELINES INSTALLATION

- Appearance: Install pipes straight, and parallel or

perpendicular to walls, floors, ceilings, and other building elements.

- Pipelines finish: Smooth, consistent bore, clean, free from defects, e.g. external scratching, toolmarks, distortion, wrinkling, and cracks.
- Concealment: Generally conceal pipelines within floor, ceiling and/ or roof voids.
- Access: Locate runs to facilitate installation of equipment, accessories and insulation and allow access for maintenance.
- Arrangement of hot and cold pipelines: Run hot pipelines above cold where routed together horizontally. Do not run cold water pipelines near to heating pipelines or through heated spaces.
- Electrical equipment: Install pipelines clear of electrical equipment. Do not run pipelines through electrical enclosures or above switch gear distribution boards or the like.
- Insulation allowance: Provide space around pipelines to fit insulation without compression.

#### 80 PIPELINES FIXING

- Fixing: Secure and neat.
- Joints, bends and offsets: Minimize.
- Pipeline support: Prevent strain, e.g. from the operation of taps or valves.
- Drains and vents: Fix pipelines to falls. Fit draining taps at low points and vents at high points.
- Thermal expansion and contraction: Allow for thermal movement of pipelines. Isolate from structure. Prevent noise or abrasion of pipelines caused by movement. Sleeve pipelines passing through walls, floors or other building elements.
- Dirt, insects or rodents: Prevent ingress.

### 83 PIPELINE SPACING

- Clearance (minimum) to face of wall-fixed pipes or pipe insulation:
  - From floor: 150 mm.
  - From ceiling: 50 mm.
  - From wall: 15 mm.
  - Between pipes: 25 mm.
  - From electrical conduit, cables, etc: 150 mm.

### 84 JOINTS IN PIPELINES

- Copper pipelines:
  - Preparation: Cut pipes square. Remove burrs.
  - Joints: Neat, clean and fully sealed. Install pipe ends into joint fittings to full depth.
  - Bends: Do not use formed bends on exposed pipework, except for small offsets. Form changes of direction with radius fittings.
  - Adaptors for connecting dissimilar materials: Purpose designed.
  - Substrate and plastics pipes and fittings: Do not damage, e.g. by heat when forming soldered joints.
  - Flux residue: Clean off.
- Capillary joints in plastics coated pipelines.
  - Plastics coating: Do not damage, e.g. by direct or indirect heat. Wrap completed joint (when cool) with PVC tape of matching colour, half lapped.
- Thermoplastics pipelines:
  - Standard: Fusion jointing in accordance

with WIS 4-32-08.

- Fittings and accessories for joints: Purpose designed.
- Preparation: Cut pipes square. Remove burrs.
- Joints: Neat, clean and fully sealed. Install pipe ends into joint fittings to full depth.
- Compression fittings: Do not overtighten.

#### 85 PIPELINES ENTERING BUILDINGS

- Depth: Lay pipes at least 750 mm and no more than 1350 mm below finished ground level.
- Pipelines rising into building within 750 mm of the external face of the external wall or passing through a ventilated void below floor level: Insulate from finished floor level to 600 mm beyond external face of building.
- Ends of pipeducts: Seal both ends to a depth of at least 150 mm.

#### 86 INSTALLING INSULATION TO PIPELINES

- Standard: In accordance with BS 5970.
- Cold water pipelines: Insulate in unheated spaces. Insulate potable cold water pipelines.
- Hot water pipelines: Insulate, except for short lengths in prominent positions next to appliances.
- External supply pipelines exposed to air or less than 750 mm below finished ground level: Insulate.
- Appearance: Fix securely and neatly. Make continuous over fittings and at supports. Leave no gaps. Locate split on 'blind' side of pipeline.
- Timing: Fit insulation after testing.

#### 88 INSTALLING VALVES

- Isolation and regulation valves: Provide on

equipment and subcircuits.

- Access: Locate where valves can be readily operated and maintained and next to equipment which is to be isolated.
- Connection to pipework: Fit with joints to suit the pipe material.

## COMPLETION

### 90 FLUSHING AND FILLING

- Standard: To BS EN 806-4.

### 91 SYSTEM DISINFECTION

- Disinfection: To BS EN 806-4.

### 92 TESTING

- Standard: To BS EN 806-4.
  - Notice (minimum): 3 days.
- Preparation: Secure and clean pipework and equipment. Fit cistern and tank covers.
- Leak testing: Start boiler and run the system until all parts are at normal operating temperatures and then allow to cool to cold condition for a period of 3 h.
- Pressure testing: At both hot and cold conditions joints, fittings and components must be free from leaks and signs of physical distress when tested for at least 1 h as follows:
  - Systems fed directly from the mains, and systems downstream of a booster pump: Apply a test pressure equal to 1.5 times the maximum pressure to which the installation or relevant part is designed to be subjected in operation.
  - Systems fed from storage: Apply a test pressure equal to the pressure produced when the storage cistern is filled to its normal maximum operating level.



- Inaccessible or buried pipelines: Carry out hydraulic pressure test to twice the working pressure.

### 93 COMMISSIONING

- Standard: To BS EN 806-4.
- Equipment: Check and adjust operation of equipment, controls and safety devices.
- Outlets: Check operation of outlets for satisfactory rate of flow and temperature.

### 94 TESTING SERVICE PIPELINES

- Test method: Disconnect from the mains, fill with potable water, exclude air, and apply at least twice the working pressure for 1 h.
- Test criterion: No leakage.

### 95 DOCUMENTATION

- Manufacturers' operating and maintenance instructions: Submit for equipment and controls.
- System operating and maintenance instructions: Submit for the system as a whole giving optimum settings for controls.
- Record drawings: Submit drawings showing the location of circuits and operating controls.

### 96 OPERATING TOOLS

- Tools: Supply tools for operation, maintenance and cleaning purposes.
- Valve keys: Supply keys for valves and vents.

### 97 LABELS

- Valve labels: Provide labels on isolating and regulating valves on primary circuits, stating their function.

## U90 General ventilation - domestic

### GENERAL

#### 14 LOCAL EXTRACT FAN VENTILATION SHOWER ROOM

- Room extract terminals: On the fan.
- Fan units: Submit design and cost proposals.
- Air ductwork: Rigid ductwork.
- Air ductwork accessories: Condensation traps and Site applied insulation.
- External exhaust air terminals: Roof slope exhaust terminals.
- Controls: Sensors, humidity.
- Completion: Commissioning.

#### 14A LOCAL EXTRACT FAN VENTILATION KITCHEN

- Room extract terminals: Range hoods.
- Fan units: Submit design and cost proposals.
- Air ductwork: Rigid ductwork.
- Air ductwork accessories: Condensation traps and Site applied insulation.
- External exhaust air terminals: Roof slope exhaust terminals.
- Controls: Submit design and cost proposals.
- Completion: Commissioning.

#### 46 RIGID DUCTWORK AND FITTINGS TO EXTRACTS

- Type: PVC-U.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Sizes: Submit proposals.
- Fixing: Submit proposals.
- Jointing: Submit proposals.
- Sleeves: Sheet metal.

- Gap sealing material: Submit proposals.
- Accessories: Site applied insulation.

#### 48 CONDENSATION TRAPS EXTRACTS

- Manufacturer: Submit proposals.
  - Product reference: Submit proposals.
- Outlet: Submit proposals.

#### 58 SITE APPLIED INSULATION TO DUCTWORK EXTRACTS

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Material: Mineral wool.
- Thickness (minimum): 25 mm.
- Thermal conductivity (maximum): Submit proposals.

### EXECUTION

#### 86 RIGID DUCTWORK GENERALLY

- Joints: Seal. Provide a robust airtight installation.
- Support: Do not distort ductwork or reduce cross-sectional area. Do not strain joints.
- Falls: Fall away from fans, dampers and other in-line accessories.
- Sleeves: Locate where ducts pass through building fabric. Bed solidly to the surrounding construction. Leave a gap of 10-20 mm between sleeve and duct and fill completely.

#### 87 INSTALLING CONDENSATE DRAINS

- Access: Provide for cleaning.
- Outlet: as recommended.

#### 88 SITE APPLIED INSULATION

- Location: Fit insulation to ductwork in unheated spaces.

- Installation: Fix securely. Leave no gaps. Make continuous.

## COMPLETION

### 91 OPERATION AND MAINTENANCE

- Operating and maintenance instructions: Submit copies of manufacturers' operating and maintenance instructions for equipment and controls.
- Tools: Supply tools for operation, maintenance and cleaning purposes, including keys for valves and vents.

## V90 Electrical systems - domestic

### GENERAL

### 24 DESIGN OF GENERAL LIGHTING SYSTEM

- Purpose: General Lighting.
- Design and detailing: Complete for the general lighting system.
- Standard: To SLL 'Code for lighting'.
- Room: All.
  - Maintained average illuminance: 200 lux.
  - Controls: Switches.
- Maintenance: Submit proposals for the maintenance/ relamping regime.

### 26 DESIGN AND LIGHTING CALCULATIONS

- Design: Complete for the following lighting systems: General.
- Proposals: Submit drawings, technical information, calculations and manufacturers' literature.
- Lighting calculations:
  - Type: Computer generated point

calculations.

- Submit the following:
  - Luminaire layout drawings.
  - Luminaire photometric data including flux fraction ratios and polar intensity curves.
  - Lamp technical information.
  - Maintenance factor calculations, including proposals for luminaire maintenance and lamp replacement.
  - Isolux contour plots for the working plane.
  - Schedule of design and calculated maintained average illuminance values.
  - Schedule of design and calculated uniformity values.

## PRODUCTS

### 30 PRODUCTS GENERALLY

- Standard: To BS 7671.
- CE Marking: Required.

### 32 DISTRIBUTION BOARDS

- Standard: To BS EN 61439-3.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Third party certification: ASTA certified.
- Rating: Submit proposals.
- Incoming devices: Submit proposals.
- Number of outgoing ways: Submit proposals.
- Outgoing devices: Submit proposals.
- Enclosure:
  - Ingress protection to BS EN 60529: Submit

proposals.

- Material: Metal.
- Door lock: Submit proposals.

### 39 CABLES

- Approval: British Approvals Service for Cables (BASEC) certified.
- Cable sizes not stated: Submit proposals and calculations.

### 40 PROTECTIVE CONDUCTORS

- Type: Cable conductors with yellow/ green sheath.

### 41 ELECTRICAL ACCESSORIES As required

- Standards:
  - Generally: To BS 5733.
  - Switches: To BS EN 60669-1.
- Manufacturer: Contractor's choice .
  - Product reference: Contractor's choice .
- Finish: White plastic .
- Mounting: Recessed.

### 47 LAMPS GENERALLY

- Standards:
  - Compact fluorescent lamps: To BS EN 60901 and BS EN 61199.
  - High pressure mercury lamps: To BS EN 60188 and BS EN 62035.
  - High pressure sodium lamps: To BS EN 62035.
  - Light emitting diodes (LEDs): To BS EN 62031.
  - Metal halide lamps: To BS EN 62035.

- Tubular fluorescent lamps:

Single-capped lamps: To BS EN 60901 and BS EN 61199.

Double-capped lamps: To BS EN 60081 and BS EN 61195.

- Tungsten halogen lamps: To BS EN 60432-2 and BS EN 60357.

- Manufacturer: Contractor's choice.

- Lamps of the same type and rating: Same manufacturer.

## EXECUTION

### 60 GENERAL EXECUTION

- Standard: In accordance with BS 7671.

### 63 INSTALLING CONDUIT AND FITTINGS

- Fixing: Fix securely. Fix boxes independently of conduit.
- Drainage outlets: Locate at lowest points in conduit installed externally, and where condensation may occur.
- Location: Position vertically and horizontally in line with equipment served, and parallel with building lines. Locate where accessible.
- Jointing:
  - Number of joints: Minimize.
  - Lengths of conduit: Maximize.
  - Cut ends: Remove burrs, and plug during building works.
  - Movement joints in structure: Manufactured expansion coupling.
  - Threaded steel conduits: Tightly screw to ensure electrical continuity, with no thread showing.

- Conduit connections to boxes and items of equipment, other than those with threaded entries: Earthing coupling/ male brass bush and protective conductor.
- Changes of direction: Site machine-formed bends, junction boxes and proprietary components. Do not use elbows or tees. Alternatively, use conduit boxes.
- Connections to boxes, trunking, equipment and accessories: Screwed couplings, adaptors, connectors and glands, with rubber bushes at open ends.

#### 66 CABLE ROUTES

- Cables generally: Conceal wherever possible.
  - Concealed cable runs to wall switches and outlets: Align vertically with the accessory.
- Exposed cable runs: Submit proposals.
  - Orientation: Straight, vertical and/ or horizontal and parallel to walls.
- Distance from other services running parallel: 150 mm minimum.
  - Heating pipes: Position cables below.

#### 68 INSTALLING ELECTRICAL ACCESSORIES AND EQUIPMENT

- Location: As drawings.
- Arrangement: Coordinate with other wall or ceiling mounted equipment.
- Positioning: Accurately and square to vertical and horizontal axes.
- Alignment: Align adjacent accessories on the same vertical or horizontal axis.
- Mounting: Recessed.
- Mounting heights (finished floor level to underside of equipment or accessory): As



drawings .

#### 70 INSTALLING FINAL CONNECTIONS

- Size: Determine.
- Cable: Heat resisting white flex.
- Length: Allow for equipment removal and maintenance.

#### 72 INSTALLING LUMINAIRES

- Location: As drawing.
- Supports: Adequate for weight of luminaire.
- Locations: Submit proposals.

#### 74 EQUIPMENT LABELLING

- Electrical equipment: Install labels indicating purpose.
- Voltage warning notices:
  - Location: Apply to equipment when the voltage exceeds 230 V.
  - Format: To BS EN ISO 7010 W012, include warnings of the voltage present.
- Distribution boards: Card circuit chart within a reusable clear plastic cover. Fit to the inside of each unit. Include typed information identifying the outgoing circuit references, their device rating, cable type, size, circuit location and details. Label each outgoing way corresponding to the circuit chart.
- Sub-main cables: Label at both ends, with circuit reference using proprietary cable marker sleeves.

#### 78 FINAL FIX

- Accessory faceplates, luminaires and other equipment: Fit after completion of building painting.

#### 79 CLEANING

- Electrical equipment: Clean immediately before handover.
- Equipment not supplied but installed under the electrical works: Clean immediately before handover.

## COMPLETION

### 85 INSPECTION AND TESTING GENERALLY

- Standard: In accordance with BS 7671.
- Notice before commencing tests (minimum): 24 hours.
- Labels and signs: Fix securely before system is tested.
- Certificates: Submit.
  - Number of copies: 1.

## Z20 Fixings and adhesives

### 10 FIXINGS AND FASTENERS GENERALLY

- 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.
- Components, substrates, fixings and fasteners of dissimilar metals: Isolate with washers or sleeves to avoid bimetallic corrosion.
- General usage: To recommendations of fastener manufacturers and/ or manufacturers of components, products or materials fixed and fixed to.
- Fixings: To be in straight lines, at regular centres.

### 25 FASTENER DURABILITY

- Materials: To have:
  - Bimetallic corrosion resistance appropriate to items being fixed.
  - Atmospheric corrosion resistance

appropriate to fixing location.

- Appearance: Submit samples on request.

### 30 FIXINGS THROUGH FINISHES

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

### 35 PACKINGS

- Materials: Noncompressible, corrosion proof.
- Area of packings: Sufficient to transfer loads.

### 40 CRAMP FIXINGS

- Fasteners: Fix cramps to frames with screws of same material as cramps.
- Fixings in masonry work: Fully bed in mortar.

### 50 PELLETED COUNTERSUNK SCREW FIXINGS

- Finished level of countersunk screw heads: Minimum 6 mm below timber surface.
- Pellets: Cut from matching timber, grain matched, glued in to full depth of hole.
- Finished level of pellets: Flush with surface.

### 55 PLUGGED COUNTERSUNK SCREW FIXING

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

### 60 APPLYING ADHESIVES

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

surplus adhesive.

## Z21 Mortars

### 10 MORTAR MIXES

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

### 20 SAND FOR SITE MADE CEMENT GAUGED MASONRY MORTARS

- Standard: To BS EN 13139.
- Grading: 0/2 (FP or MP).
  - Fines content where the proportion of sand is specified as a range (e.g. 1:1: 5-6):
 

Lower proportion of sand: Use category 3 fines.

Higher proportion of sand: Use category 2 fines.
- Sand for facework mortar: Maintain consistent colour and texture. Obtain from one source.

### 25 SAND FOR LIME: SAND MASONRY MORTARS

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

### 40 CEMENTS FOR MORTARS

- Cement: To BS EN 197-1 and CE marked.
  - Types:
    - Portland cement, CEM I.
    - Portland limestone cement, CEM II/A-LL.
    - Portland slag cement, CEM II/B-S.
    - Portland fly ash cement, CEM II/B-V.

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

#### 50 ADMIXTURES FOR SITE MADE MORTARS

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

#### 60 MAKING MORTARS GENERALLY

- Batching: By volume. Use clean and accurate gauge boxes or buckets.
- Mix proportions: Based on dry sand. Allow for bulking of damp sand.
- Mixing: Mix materials thoroughly to uniform consistency, free from lumps.
  - Mortars containing air entraining admixtures: Mix mechanically. Do not overmix.
- Contamination: Prevent intermixing with other

Property: 13 Station Road, Southwold, Suffolk, IP18 6AX.  
Scope of Works.

materials.

<b>3.0</b>	<b>SCOPE OF WORK</b>				
<b>3.1</b>	<b>EXTERNALLY</b>				
3.1.1	Gain access to the rear chimney to all four sides. For pricing purposes assume that access for works is granted by the adjacent owner/occupier. Allow to remove existing cement haunchings at the abutment to the roof pitch and clear away. Design, supply and install new code 4 lead flashings to all four sides of the chimney stack, to be chased, wedged and sealed in position to mortar joints and carried over the roof abutment, all in accordance with LDA design guidelines.				
3.1.2	Gain access to all rainwater goods and clear out debris. Test gutters and downpipes and report any leaks or blockages to the CA.				
3.1.3	Allow the provisional sum of £250 for repairs to joints or clearance of blockages to rainwater goods.				
3.1.4	To the rear single storey pitched roof over the area to be incorporated within the habitable accommodation (extended kitchen and ground floor WC cubicle) allow to carefully lift the overlapping clay pantiles and set aside. Leave lead flashings chased into the rear gable and carefully set aside ridge tiles. Allow for inspection of the structure by the CA. Supply and install new treated timber tiling battens at gauge to suite, over breathable roofing felt draped between rafters and overlapped in accordance with manufacturer's recommendations. Refix set aside tiles including ridge tiles and bedding mortar. Form mortar verge to match existing and leave clean and tidy.				
3.1.5	To the rear gable of the single storey rear projection, allow to take down and rebuild the leaning brickwork forming the apex of the gable end, between the top edge of the rear lean-to to the roof verge. For pricing purposes, assume consent of adjoining owner as part of the works will affect the adjacent property. Include for support of roof structure as necessary and rebuilding of the brick section complete. For pricing purposes, do not allow for any internal making good which will be assessed separately.				
3.1.6	To the front elevation of the property only, allow to gain full access and repoint. Rake out all mortar joints to a depth of twice the mortar thickness using not percussion tools. Clean and wet the recess and repoint with lime putty/sand in approximate 1:3 ratio, to be flush finished. Clean down all arisings.				
3.1.7	Allow for areas of patch repointing to other elevations as directed by the CA. Provide cost per sq.m. for repointing as above specified £_____/sqm. Apply this rate to 5m <sup>2</sup> . For pricing purposes, do not include for any additional access as this will be assessed separately.				

3.1.8	Other than the front elevation (3no. sashes and front door), all existing external windows and doors to be removed and replaced. Remove all arisings from site and prepare openings. Design, supply and install replacement windows to be BSEN 335-1, Use Class 3.1, and B—VAC treated timbers and delivered to site pre-primed and decorated. U value windows to be no less than 1.6W/m <sup>2</sup> K. All doors and windows to BS PAS 24: 2012. All glazing to be double glazed sealed units (4-16-4) with low E glass to inner pane and argon gas filled. Fenestration design to match existing windows to openings of replacement windows. Note on the drawings where windows are required as fire escape routes and ensure minimum unobstructed opening dimensions of 450mm x 450mm are provided. Report to CA when this requirement cannot be achieved. Include for hinges, restricting opening catches, opening mechanisms, sash windows and other necessary ironmongery to all new windows and doors, to be good quality and chrome finished where available.			
3.1.9	To the front elevation 3no. sash windows allow to ease and overhaul allowing for replacement fasteners and catches. Do not allow for replacement weights and cords. To the windows and front door, rub down prepare and redecorate with 2no. coats gloss paint. Remove door ironmongery and refit to avoid carrying paint over the face.			
3.1.10	Design supply and install powder coated white aluminium framed safety glazed secondary glazing to the three sash windows. Single horizontal bar to line up with existing window sash position to minimise visual impact.			
3.1.11	The front elevation of the property has undergone some movement in the past. Remedial works have previously been undertaken with regards to repairs and lining to drainage. Allow to install a series of helifix masonry repair ties to the fractured brickwork prior to repointing. Allow for 6 No. repairs in joints to be identified and confirmed with CA. Allow to install complete in accordance with helifix installation guide.			
3.1.12	To the rear courtyard, to the area identified on the plans, allow to form French drain where the courtyard slab meets the perimeter of the building. Disc cut a clean straight edge through the slab and break out. Allow to excavate to a depth of a minimum 150mm. Line with a geotextile membrane and backfill with pea shingle.			
3.1.13	Allow to undertake external redecoration of all previously decorated surfaces, including rainwater goods, fascias and rear yard gate and post etc. Rub down, prepare and prime any bare surfaces as necessary. Redecoration to comprise of 2 No. coats of good quality metal/timber paint as applicable.			
3.1.14	To all chimney pots, supply and fit bird and rain-proof cowl.			
3.1.15	Allow the provisional sum of £500 for joinery repairs.			



<b>3.2</b>	<b>INTERNALLY – STRIPPING OUT</b>			
3.2.1	Isolate all surfaces and make good prior to stripping out.			
3.2.2	Asbestos removal – with reference to the provided Asbestos Survey Solutions pre-refurbishment report, allow to remove the bituminous sink pad from the ground floor kitchen and the gas fire within the lounge (presumed asbestos content) and dispose of appropriately. Provide waste transfer note to CA.			
3.2.3	Throughout the premises, allow to strip out all ceilings, dry-linings to external walls, skirtings, picture rails, door architraves and cart away.			
3.2.4	Remove internal doors and set aside for reuse.			
3.2.5	Allow to strip out the existing kitchen fittings and bathroom suite complete and cap off services.			
<b>3.3</b>	<b>STRUCTURAL ALTERATIONS</b>			
3.3.1	All structural works to be in accordance with Horizon Structures' design and calculations.			
3.3.2	Within the existing kitchen, install cracked beam 152 x 152 UC23 on new padstones each 337 x 100 x 150mm deep to each end bearing.			
3.3.3	To facilitate removal of the chimney breast at ground floor level only, install new 152 x 89 UB16 steel beam as indicated, connecting to the cranked beam.			
3.3.4	Following installation of chimney breast support beam, allow to carefully dismantle and remove masonry and rubble forming the chimney breast at ground floor level.			
<b>3.3.5</b>	From the cranked beam to the proposed ground floor WC partition, remove existing timber purlin, to be replaced with new 100 x 100mm C24 timber purlin.			
3.3.6	Kitchen window and door opening lintel to be removed, and replaced with new Catnic CN81C lintel with minimum 150mm end bearings on either side. Make good sand cement rendered finish following installation.			
3.3.7	Form opening in brickwork partition between extended kitchen of proposed ground floor WC. Form opening to suit 686mm door leaf and install Catnic solid wall lintel over with minimum 150mm end bearings.			

<b>3.4</b>	<b>REMEDIAL AND MAKING GOOD</b>			
3.4.1	To the external walls, allow to install new injected DPC. Allow to drill brickwork or mortar in brick course at least 150mm above the existing external ground levels. Injector proofed chemical new damp-proof course level from both sides of the wall and include vertical damp-proof course to abutting walls and partitions. Fill and make good injection holes externally. Provide minimum 20 year insurance backed warranty for the DPC works.			
3.4.2	New floor slab to be provided throughout the ground floor area excluding proposed ground floor WC. Within the kitchen and part hallway near the stairs, existing floor slab is concrete. Break out concrete floor and cart away. Excavate levels. To the remainder of the ground floor area, there is suspended timber floor. Lift existing floorboards and joists and any wall plates etc. and cart away. Excavate oversite to levels and lay new floor.			
3.4.3	New floor throughout ground area to comprise 75mm sand cement or pumped screed, all on 500 gauge separating layer of 100mm Celotex GA4000 or equivalent approved rigid insulation, on 1200 gauge DPM to be lapped vertically to all perimeter walls and partitions to be carried up the face of the wall, behind the vertical DPC and timber battens included elsewhere. DPM to be laid over new 100mm thick C25 mix concrete on 100mm compacted hardcore built up to levels as required. Note: installation of underfloor heating included elsewhere.			
3.4.4	Within the proposed ground floor WC area, retain the existing floor slab which is approximately 100mm higher than the existing floor level within the kitchen. Apply Synthaproof DPM, carried 200mm up the face of the perimeter walls. Lay 25mm thick treated timber battens as a framework and fix in position. Install 25mm thick Celotex rigid insulation between battens and overlay with 90mm thick t&g flooring grade boarding. Leave 10mm gap to perimeter of the floor deck to adjacent walls.			
3.4.5	To the internal face of all external walls as indicated on the drawing, allow to install new dry lining. Such dry lining to comprise strips of high load or equivalent DPC with 25mm thick x 25mm wide treated timber battens, plugged and screwed to the wall through the DPC. Install battens at 600mm centres. The following first fix surfaces to the void created, install 25mm thick Celotex TB4000 or equivalent approved rigid insulation between the battens and line with 12.5mm thick Gyproc duplex foil backed wall board.			
3.4.6	To internal walls and partitions not affected by the new dry lining, allow to scrape back all wall coverings. Allow to hack off all loose damaged or friable plaster.			
3.4.7	Allow the provisional area of 50 sq.m. for replastering these partitions ready for decoration.			

3.4.8	To the ground floor kitchen, where the chimney breast has been removed, allow to build up layers of Carlite plaster and apply finishing coat ready for decoration.				
3.4.9	To all ceilings and external walls provided with dry-lining, apply skim coat plaster finishes.				
3.4.10	To the first floor landing, remove the existing loft hatch and provide larger hatch opening, 450mm x 450mm allowing to frame out and provide additional noggins to ceiling joists as necessary. Form new timber frame, stop and encapsulated insulation fixed to the top surface.				
3.4.11	The existing roof is uninsulated but includes built up of straw backing to the original roof over the ceiling. Following installation of new ceiling, supply and lay earthwool insulation quilt to a depth of 300mm, being 100mm between ceiling joists and 200mm laid perpendicular over. Ensure eaves remain ventilated.				
3.4.12	Allow to replace the existing storage cupboard at the first floor landing level. Form softwood timber studs and line with plasterboard with joints taped and skimmed. Include for skim finish to the external faces. Provide softwood timber linings, door stop and square architrave. Supply and fit solid core timber door leaf to existing dimensions and hang complete on new hinges. Provide door knob and magnetic catch. Line out internally with new softwood batten shelving.				
3.4.13	To all areas other than where concealed by new fixtures and fittings, allow to supply and fit new 170mm x 25mm softwood pine ogee profiled skirting boards, screwed and glued in position, matching architraves to all door openings. Fill all joints with decorators' caulk etc. as necessary and leave ready for decoration.				
3.4.14	Provide new linings to door openings as necessary along with door stops.				
3.4.15	To the ground floor, allow to supply and fit new six panel timber door set within existing openings. Install complete with new ironmongery comprising of Victorian style door knobs and catches within new keeps. Include sliding catch lock to the ground floor WC door (no indicator or key required). First floor doors previously set aside, to be re-hung with replacement ironmongery including hinges and door knobs as above specified. Include sliding catch lock to bathroom door.				
3.4.16	To 2 No. fireplaces, remove existing hearths and surrounds. Line out the recessed fireplace with treated timber studwork and MR plasterboard as part of the lining perimeter walls. Include ventilation grilles to the soffit to allow maintained natural ventilation of the chimney stack.				

3.4.17	Allow for complete interior redecoration to all surfaces. To freshly skimmed/plastered walls and partitions, apply mist coat as necessary and minimum of two top coats as necessary. Knot stop and prime all bare new joinery prior to decoration. Apply 2 No. coats of satin finish paint, colour to be agreed.				
3.4.18	To all pipework where exposed, decorate with 2 No. primer and 2 No. top coats metal paint, colour to be agreed.				
3.4.19	Allow for new floor coverings throughout. The entrance hall, lounge, dining room, staircase, first floor landing and 3 No. bedrooms to be carpeted. Allow the prime cost of £35 per sq.m. for supply only of underlay and carpet, selection to be confirmed.				
3.4.20	Allow fixed cost for installation of carpeting to all the above areas including all gripper rods and consumables and labour.				
3.4.21	Allow for laying laminate floor coverings to the kitchen, ground floor WC and first floor bathroom. Allow the prime cost of £20 per sq.m. for supply only of materials.				
3.4.22	Provide fixed cost for laying of laminate flooring including all consumables.				
<b>3.5</b>	<b>FITTING OUT</b>				
3.5.1	Allow the £6,000 for the supply only of new fitted kitchen units, to include sink and drainer, taps, but excluding white goods.				
3.5.2	Provide fixed cost for installation of fitted kitchen including all consumables.				
3.5.3	Allow the provisional sum of £5,000 for the supply only of new bathroom suite comprising of bath, pedestal wash-hand basin, WC and cistern and all associated brassware.				
3.5.4	Provide fixed price for installation of the bath suite.				
3.5.5	Allow the provisional sum of £600 for the supply only of ground floor WC cistern and wash-hand basin.				
3.5.6	Provide fixed cost for the installation of ground floor WC sanitary ware.				

3.5.7	Allow to apply wall tiling. To be metro flat wall tiles, gloss white, 20cm x 10cm with light grey grouting and chrome trims. Tiling to extend to full height along the two edges of the bath and full height between the end of the bath, to the rear of the wash-hand basin. Same tiling to be provided as splash back to wash-hand basin at ground floor WC (6 No. tiles), Same tiling also to be provided as splashback along the top edge of the worktop within the enlarged kitchen. Allow for 3 No. courses along all worktop walls. Include mastic bead where tiling abuts worktop/adjacent surfaces.			
3.5.8	Allow the provisional sum of £550 for the supply only of 11 No. blinds to window openings.			
3.5.9	Provide fixed cost for installation of 11 No. blinds.			
3.5.10	Following completion of work, allow for specialist deep clean throughout the whole premises, to facilitate immediate occupation. Expectation is that this is beyond builders' clean and does not require client to undertake further cleaning.			
<b>3.6</b>	<b>SERVICES</b>			
3.6.1	The design intention is for the existing gas fired combi boiler to be retained but for underfloor heating to be incorporated into the new ground floor slab. The design of the heating and hot water installation lies with the contractor and for pricing purposes, it is to be taken that the existing boiler would be sufficient for the proposed use. The contractor is to include for assessment of the existing boiler and undertaking such design calculations are as necessary and reporting on the suitability of the existing boiler plant to the CA.			
3.6.2	Allow to strip out of radiators throughout the premises and cart away.			
3.6.3	Allow for the complete design and installation of underfloor heating to the ground floor area complete and connecting to the existing boiler.			
3.6.4	Undertake design calculations to size replacement radiators throughout the first floor area. Radiators to be from the Stelrad Compact range and be installed complete with new thermostatic radiator valves. Pipework to be concealed where practically feasible to do so.			
3.6.5	Heating installation to be designed and installed complete with new controller to allow the ground floor underfloor heating zone to be controlled separately from conventional radiators.			

- 3.6.6 Allow for suitably sized chrome towel rails to be incorporated into the central heating system to be incorporated with the bathroom and ground floor WC.
- 3.6.7 Contractor is to design and install all drainage above ground including pipework runs and traps and connections to the below ground waste.
- 3.6.8 Contractor to design, alter and extend the existing mains cold water distribution to all required locations, to be distributed in copper pipework, with isolation points to outlets and appliances and to be insulated where passing through unconditioned/heated space. Installation in accordance with Building Regulations and WRAS as required.
- 3.6.9 Contractor to design, alter and extend the hot water distribution to all required outlets.
- 3.6.10 The contractor is to design new electrical installation and distribution to the premises complete including consumer unit, cabling, conduit and sockets and switches. All cabling to be concealed within voids created within dry-lining or chased into walls and made good. All sockets and switches from MK Logic Plus range where available. Provide electrical layout plan for CA approval before commencing installation.

Room	Power	USB	Lighting	RJ45
Ground floor hall	1 No. twin 13amp socket.	None.	2 No. pendant light fittings with 2-way light switches one at each end of the hall.	1 No.
Ground floor lounge	4 No. twin 13amp sockets	2 of the 13amp sockets to include a pair of USB sockets.	1 No. central pendant to single switch.	1 No.
Ground floor dining room	7 No. twin 13amp sockets	2 of the 13amp sockets to include a pair of USB sockets.	1 No. central pendant to single switch.	1 No.
Kitchen	4 No. twin 13amp sockets. Power supply/s for washing machine, dishwasher.	2 of the twin 13amp sockets to include a pair of USB points.	5 No. recessed LED spotlights (not dimmable) with 2 No. switches, one adjacent hallway	1 No.

	fridge and freezer all below worktop level.		and one at rear door. LED striplights below wall mounted cabinets with local switching.	
Ground floor WC	Supply 4 saniflow /macerator.	None.	1 No. pendant to single switch.	None.
First floor landing.	2 No. twin 13amp sockets.	None.	2 No. pendant light fittings, switching at the top and bottom of the stairs.	None.
Bedroom 1	4 No. twin 13amp sockets.	2 No. to 2 of the 13amp sockets to include a pair of USB points.	1 No. pendant to single switches.	1 No.
Bedroom 2	4 No. twin 13amp sockets.	2 No. to 2 of the 13amp sockets to include a pair of USB points.	1 No. pendant to single switches.	1 No.
Bedroom 3	4 No. twin 13amp sockets.	2 No. to 2 of the 13amp sockets to include a pair of USB points.	1 No. pendant to single switches.	1 No.

3.6.11 All RJ45 sockets to be installed complete with CAT 6 cabling to be connected and returned to point of existing BT main incoming socket.

3.6.12 Contractor is to design, install and commission fire detection to comprise of smoke detection to the ground and first floor hallway and landing and heat detector within the kitchen. To be hardwired and interconnected.

3.6.13 The contractor is to install hardwired carbon monoxide alarm within the ground floor WC/boiler room.

3.6.14	Kitchen extraction to be achieved via cooker hood to deliver 30 litre per second extraction. Cost for supply and installation of the hood to be included within the kitchen procurement and installation costs included elsewhere.				
3.6.15	Bathroom and ground floor WC and first floor bathroom to be provided with 15 litre per second mechanical extraction. Ground floor WC via Vent-axia silent fan or equivalent approved. Install complete with associated building work, ducting, power supply and controls. To penetrate roof pitch and be provided with proprietary flashings. Main bathroom extract to exit at rear roof pitch.				
<b>3.7</b>	<b>CONTINGENCY</b>				
3.7.1	Allow the contingency figure of £3,000 for expenditure at the direction of the CA.				



4	<b>COLLECTION PAGE</b>						
	PRELIMINARIES						
	3.1 EXTERNALLY						
	3.2 INTERNALLY – STRIPPING OUT						
	3.3 STRUCTURAL ALTERATIONS						
	3.4 REMEDIAL AND MAKING GOOD						
	3.5 FITTING OUT						
	3.6 SERVICES						
	3.7 CONTINGENCY						
	 TOTAL (£)						

## FORM OF TENDER

\*I/We: .....

carrying on business at:

.....

having examined the specification and manufacturers recommendations and literature, hereby tender and undertake to execute and complete the whole of the said Works in conformity with the aforementioned documentation for the sum of:

£.....(in figures)

.....(in words)

exclusive of VAT (or such other sum as may be ascertained in accordance with the Conditions of Contract).

Should My/Our tender be accepted, and if requested by the Employer, I/We agree to enter into the Articles of Agreement. Unless and until such an agreement is executed this Form of Tender and the acceptance hereof shall constitute a binding contract between us.

I/We agree that the insertion by me/us of any conditions qualifying this tender or any unauthorised alteration to any of the tender documents may cause the tender to be rejected and confirm that I/We have not inserted any conditions qualifying this tender or made any unauthorised alteration to any of the tender documents.

I/We certify that the details of this tender have not been communicated to any other person or adjusted in accordance with any agreement or arrangement with any other person, firm or company.

I/We also certify that I/We am/are not a party to a scheme or arrangement under which any other tenderer was reimbursed any part of his/her tender cost.

I/We confirm that the above sum includes all Provisional Sums and all Contingencies and agree that this tender shall remain open for acceptance by you and shall not be withdrawn for a period of **10 weeks** from the closing date for return of tenders.

I/We understand that you are not bound to accept the lowest or any tender you may receive, and you will not pay any expenses incurred by us in connection with the preparation and submission of this tender.

I/We hereby warrant and undertake to you in the terms set out in the Instructions to Tenders.

I/We certify that this is a bona fide Tender.

I/We undertake to complete and deliver the whole of the Works comprised in the Contract within **10 weeks** from the Date of Possession.

**Contractor's Representative's Signature:**

**(Print Name in Full):** .....

**Position in Company/Firm (must be a director or secretary or another person authorised by the company to sign \*):**

.....

**Name of Company/Firm:**

.....

**Address:**

.....

.....

.....

**Tel. No(s):** .....

**Email Contact:** .....

**Date** ..... **2020**

