

June 2022

**OKEHAMPTON TOWN COUNCIL  
OKEHAMPTON**

**REPLACEMENT ROOFS AND RECONFIGURED AIR  
HANDLING DISTRIBUTION OF CHARTER HALL**



**PRELIMINARIES and MATERIALS & WORK**

**Ref. 020-28-SP-01-MK**

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**SECTION 1: PRELIMINARIES**

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## 110 THE PROJECT:

Name: The Charter Hall Roof  
 Location: Charter Hall, Market Street, Okehampton, Devon EX20 1AA  
 Preferred commencement: September 2022 - TBA  
 Estimated completion: [4 months] December 2022

## 120 EMPLOYER (CLIENT):

Okehampton Town Council  
 c/o The Town Clerk, The Town Hall, Fore Street, Okehampton Devon EX20 1AA  
 Tel. 01837 53179

## 127 THE PRINCIPAL CONTRACTOR: The Contractor

## 130 CDM CO-ORDINATOR

Name: Mark Kemp  
 Address: PLACE architects, Northgate Studios, Launceston, PL15 8BD  
 Tel: 01566 772035

## 140 ARCHITECT (hereinafter referred to as 'CA'):

Mark Kemp  
 PLACE architects Ltd  
 Northgate Studios  
 Launceston  
 Devon PL15 8BD  
 Tel. 01566 772035

## 150 STRUCTURAL ENGINEER

Jack Martin  
 StructureHaus  
 Hampton House  
 23 Longbrook Street  
 Exeter  
 Devon EX4 6AB  
 Tel. 01392 363497

## 160 BUILDING SERVICES ENGINEER

James Davies  
 3de Building Services Design  
 The Bungalow  
 Waterton Lane, Bridgend  
 Wales CF31 3YW  
 Tel. 0292 520 347

**A11 TENDER AND CONTRACT DOCUMENTS**

## 110 TENDER DOCUMENTS

THE TENDER DRAWINGS are:

- A 020-28 200-01 Existg & Proposed Roof Plan
- A 020-28 201-01 Existg Hall GA Plans
- A 020-28 202-01 Existg & Proposed Sections
- A 020-28 203-01 Proposed Section AA & Details
- A 020-28 204-01 Proposed Lead Gutter & Details
  
- A 020-28-SP-01-MK-04 Preliminaries and Materials & Work
- A 020-28-SP-01-MK-SoW-03

- S 05229E\_600A Decked Access Walkway Details
- S 05229E\_601 – AHU Steel Support Details
  
- S 05229E-Structural Specification-2022-06-17
  
- M OKE-3DE-XX-01-DR-M-57-0001-P01 Existing Mechanical Ventilation Services
- M OKE-3DE-XX-01-DR-M-57-0002-P02 Proposed First Floor Mechanical Ventilation Services
- M OKE-3DE-XX-RF-DR-M-57-0003-P02 Proposed Roof Level Mechanical Ventilation Services
- M OKE-3DE-XX-ZZ-DR-M-57-0004-P02 Proposed Mechanical Ventilation Services Sections & Details
- M OKE-3DE-XX-ZZ-DR-M-57-0005-P02 Proposed Mechanical Ventilation Services 3D Isometric View
  
- M OKE-3DE-XX-XX-SP-M-57-0006-P01 Mechanical Services Schedule of Works & Tender Summary
  
- M OKE-3DE-XX-XX-SH-M-57-0007-P01 Equipment Schedule – Attenuators
- M OKE-3DE-XX-XX-SH-M-57-0008-P01 Equipment Schedule - Supply Diffusers
- M OKE-3DE-XX-XX-SH-M-57-0009-P01 Equipment Schedule - Extract Grilles

120 THE CONTRACT DRAWINGS will be the same as the tender drawings.

160 **PRELIMINARY HEALTH AND SAFETY INFORMATION PACK**  
Information for insertion in the pack is a separate document and is referred to in Section A34. It refers to information given in the preliminaries, specification and drawings.

180 **OTHER DOCUMENTS**

- Inspection: Drawings and other documents relating to the Contract but not included in the tender documents may be seen by appointment during normal office hours at the office of 9am to 5.30pm.
- The documents include:
  - Health & Safety File,
  - Asbestos Management Plan,
  - Ecology Report,
  - Structural Report,
  - Ventilation system condition report,
  - Drain survey.

**A12 THE SITE/EXISTING BUILDINGS**

110 **THE SITE**

Consists of the existing buildings in public use and the surrounding area indicated on the roof plan [106] as required to carry out the works. The site is closely surrounded by other buildings and the public footpath/highway. The adjacent Town Hall, south of the Charter Hall is accessed from Fore Street and is a Grade II Listed historic building.

To the east of the Charter Hall is a two-storey building with ground floor shop units no.s 1-7 facing Red Lion Yard. The Yard is operated by a management company (contact details available). There is a flat roof over the store leading off the Charter Hall which sits between these buildings and a micro lightwell approximately half-way along the length of the Charter Hall.

To the south of the Charter Hall and sharing the same roof, is the Carlton Cinema. [Note: this building is named "Market Hall" on the Location Plan and the Charter Hall is also labelled "Cinema".] The building within the redline on the location plan is owned by the Town Council and the Carlton Cinema is leased to Merlin Cinema (contact details available).

140 **EXISTING MAINS/SERVICES:**

- Overhead cables crossing Market Street.
- Mains electrical supply in building
- Foul drainage to sewer in road.
- Storm drainage to combined sewer in road.
- Mains water supply.

200 **ACCESS TO THE SITE:**

The site is approached via the highway from the west side and pedestrian access on the east side from the Red Lion Yard. Contractor's access to the site is through double doors located in Market Street and will be restricted. Temporary arrangements are to be agreed with a Contractor's Method Statement for the Health & Safety Plan. Contractor's access to the building will be agreed on a work phased basis in advance to an agreed programme. All routes must be kept clear of obstructions. The property is kept locked at night-time and a door key will be available. The Contractors will be allowed use of welfare facilities in the south east corner of the Charter Hall.

220 USE OF THE SITE:

- Do not use the site for any purpose other than carrying out the Works.
- The adjacent Town Hall is a listed historic building and is to be treated with due respect. Functions will continue to be held in the Town Hall during the contract unless agreed otherwise for safety reasons.
- The connected building, the Carlton Cinema will continue to operate as a cinema unless agreed otherwise for safety reasons. Periodic access into the building by the public is to be controlled.
- The extent of the Contractor's working areas are to be agreed with the architect prior to start of the works.

230 SURROUNDING LAND/BUILDING USES:

The property lies within the conservation area in the town of Okehampton and is surrounded by public rights of way, a highway and commercial property. There is no car park on the site, however, some spaces on the opposite side of Market Street will be made available following commencement, opposite the Carlton Cinema, for small vehicles, skip or for loading/ unloading of materials. The Red Lion Yard is open to the public 24 hours and is operated privately, this needs to be taken into consideration. Access from here will be strictly controlled.

240 RISKS TO HEALTH AND SAFETY:

- The nature and condition of the site/building cannot be fully and certainly ascertained before it is opened up. However the following risks are or may be present and are listed in the Safety & Health Plan.  
Working at height.  
Working on fragile unprotected roof structures containing rooflights.  
Working on an historic structure with various constructions.  
Working against a Party Wall  
Working in restricted area.  
Working with existing heavy plant.  
Working with lead.  
Working on an occupied building.  
Working over public footpaths not more than 1.8m wide.  
Working adjacent to public shopping yard  
Working on the highway. Market Street is a busy road.  
Asbestos Containing Materials are known to be present. An up-to-date asbestos register is available for inspection. Report prepared by Nick Mayne, Environmental Services, Exeter.
- The accuracy and sufficiency of this information is not guaranteed by the Employer or the CA and the Contractor must ascertain if any additional information is required to ensure the safety of all persons and the Works.
- Draw to the attention of all personnel working on the site the nature of any possible contamination and the need to take precautionary measures.

280 SITE VISIT: Before tendering, ascertain the nature of the site, access thereto and all local conditions and restrictions likely to affect the execution of the Works.

290 SITE VISIT: May be made by arrangement with the Town Clerk or Secretary.

**A13 DESCRIPTION OF THE WORK**

120 THE WORK: The work consists of the following repairs.

- Designing and erecting scaffolding.
- Demolition of redundant chimney.

- Removing and reinstating existing suspended false ceiling, polythene wrapped insulation rolls and new insulation under.
- Removing existing Air Handling Unit (AHU) for repair and reinstatement. Removing existing AHU ductwork. Installing new ductwork inside existing roof space to Building Services Engineer's design.
- Installing new steel access gantry within existing pitched roof space with new access ceiling hatch. Installing new steel support structure to carry AHU.
- Stripping and recovering work to slated pitch roofs and flat roofs including constructing new flat roofs and lead valleys, replacing gutters and abutment flashings. Setting aside natural slates for salvage company for employer benefit. Raising stone wall to new wall plate height. Timber roof structure modifications. Installing replacement roof ventilation system Associated timber repairs to roof structure, slopes and at eaves. Overhaul rainwater goods and disposal system. Making good and decorations.  
See section 3 schedule.

## **A20 JCT MINOR WORKS BUILDING CONTRACT (MW)**

### **370 JCT MINOR WORKS BUILDING CONTRACT**

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

#### THE RECITALS

##### First

#### THE WORKS AND THE CONTRACT ADMINISTRATOR

- The work comprises works to roofs and plant at Okehampton Town Hall including replacing and reconfiguring hall ventilation distribution system, installing new maintenance access to hall roof space, replacing failing flat roof coverings and re-laying new natural slate pitched roof coverings.
- Architect/ Contract Administrator: See clause A10/140.

##### Second

#### 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 drawings, specifications and schedules.

##### Third

#### PRICED DOCUMENTS

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

#### 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

##### Fourth Recital and Schedule 2

#### BASE DATE

- Base date: 1<sup>st</sup> July 2022.

##### Fourth Recital and clause 4.2

#### CONSTRUCTION INDUSTRY SCHEME (CIS)

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

## Fifth Recital

## CDM REGULATIONS

- The project is notifiable.

## Sixth Recital

## FRAMEWORK AGREEMENT

- Framework agreement: not applicable.

## Seventh Recital and Schedule 3

## SUPPLEMENTAL PROVISIONS

- Collaborative working: Supplemental Provision 1 applies.
- Health and safety: Supplemental Provision 2 applies.
- Cost savings and value improvements: Supplemental Provision 3 applies.
- Sustainable development and environmental considerations: Supplemental Provision 4 applies.
- Performance indicators and monitoring: Supplemental Provision 5 does not apply.
- Notification and negotiation of disputes: Supplemental Provision 6 applies. Where Supplemental Provision 6 applies, the respective nominees of the parties are:
  - Employer's nominee: Architect. See section A10/140.
  - Contractor's nominee: To be agreed.
  - Or such replacement as each party may notify to the other from time to time.

## Article 7

## ARBITRATION

- Article 7 and Schedule 1 does not apply.

## Clause 2.2

## COMMENCEMENT AND COMPLETION

- Works commencement date: TBA.
- Date for Completion: 18 weeks after commencement anticipated.

## Clause 2.8

## LIQUIDATED DAMAGES

- At the rate of £200 per week.

## Clause 2.10

## RECTIFICATION PERIOD

- Period: 12 months from the date of practical completion.

## Clause 4.3

## INTERIM PAYMENTS

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

## Clause 4.3 and 4.8

## FLUCTUATIONS PROVISION

- The following fluctuations provision: does not apply.

## Clause 4.8.1

## SUPPLY OF DOCUMENTATION FOR COMPUTATION OF AMOUNT TO BE FINALLY CERTIFIED

- Period: 3 months from the date of practical completion.

## Clause 5.3

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

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



Clauses 5.4A, 5.4B and 5.4C

INSURANCE OF THE WORKS ETC – ALTERNATIVE PROVISIONS

- Clause 5.4B applies. (*Works and existing structures insurance by Employer in Joint Names.*)

Clauses 5.4A.1 and 5.4B.1.2

PERCENTAGE TO COVER PROFESSIONAL FEES

- Addition: 15 per cent.

Clause 7.2

ADJUDICATION

- The Adjudicator is: TBC.
- Nominating body: President or Vice President of the RIBA.

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 underhand.

CONTRACT GUARANTEE BOND

- Contract Guarantee Bond: not required

### **A30 TENDERING/ SUBLETTING/ SUPPLY**

MAIN CONTRACT TENDERING

110 SCOPE

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

145 TENDERING PROCEDURE

- General: In accordance with NBS Guide to Tendering for Construction Projects.
- Errors: Alternative 2 is to apply.

160 EXCLUSIONS

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

170 ACCEPTANCE OF TENDER

- 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: Tenders must remain open for consideration (unless previously withdrawn) for not less than 20 weeks from the date fixed for the submission or lodgement of tenders. Information on the date for possession/commencement is given in section A20

## PRICING/ SUBMISSION OF DOCUMENTS

## 220 PRICING OF PRELIMINARIES

- Charges: When pricing Preliminaries, identify separately for each item where, for the purpose of valuing the work, the charge for that item is considered to be:
  - Fixed (i.e. where the charge for the item does not depend on duration)
  - Time related (i.e. where the charge for the item does not depend on duration).

## 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.

## 440 SCHEDULE OF RATES

- Content: unpriced schedules included with the tender documents:
  - Timber repairs.
  - Lead work.
  - Slating.
  - Stone masonry.
  - Steel work
  - Decorating

- Fully priced copy: with the tender.

## 500 TENDER STAGE METHOD STATEMENTS

- Method statements: Prepare, describing how and when the following is to be carried out:
  - installation and removal of access scaffolding.
  - reroofing, including provision of temporary roofing.
  - removal and reinstatement of Air Handling Unit.
  - removal and reinstatement of suspended ceiling.
- Statements: Submit within one week of request.

## 515 ALTERNATIVE TIME TENDERS

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

## 530 SUBSTITUTE PRODUCTS

- 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.

## 550 HEALTH AND SAFETY INFORMATION

- Content: Describe the organization and resources to safeguard the health and safety of operatives, including those of subcontractors, and of any person whom the works may affect.
- Include:
  - A copy of the health and safety policy document, including risk assessment procedures.
  - Accident and sickness records for the past five years.
  - Records of previous Health and Safety Executive enforcement action.
  - Records of training and training policy.
  - The number and type of staff responsible for health and safety on this project with details of their qualifications and duties.
- Submit: within one week of request.

## 599 FREEDOM OF INFORMATION ACT

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

**A31 PROVISION, CONTENT AND USE OF DOCUMENTS****TERMS USED IN REFURBISHMENT/ALTERATION**

- 311 REMOVE means disconnect, dismantle as necessary and the stated element, work or component and all associated accessories, fastenings, supports, linings and bedding materials, and dispose of unwanted materials. It does not include removing associated pipework, wiring, ductwork or other services.
- 321 KEEP FOR REUSE means:
- During removal prevent damage to the stated components or materials, and clean off bedding and jointing materials.
  - Stack neatly, adequately protect and store until required by the Employer or for use in the Works as instructed.331 REPLACE means:
  - Remove the stated existing components, features and finishes.
  - Provide and fit in lieu new components, features or finishes which, unless specified otherwise, must match those which have been removed.
  - Make good as necessary.
- 341 REPAIR means carry out local remedial work to components, features and finishes as found in the existing building, re-secure or re-fix as necessary and leave in a sound and neat condition. It does not include:
- Replacement of components or parts of components.
  - Redecoration.
- 351 MAKE GOOD means carry out local remedial work to components, features and finishes which have been disturbed by other, previous work under this Contract and leave in a sound and neat condition. It does not include:
- Replacement of components or parts of components.
  - Redecoration. The meaning of the term shall not be limited by this definition where used in connection with the defects liability provisions of the Contract.
- 361 EASE means make minor adjustments to moving parts of the stated component to achieve good fit in both open and closed positions and ensure free movement in relation to fixed surrounds. Make good as necessary.
- 371 TO MATCH EXISTING means use products, materials and methods to match closely all visual characteristics and features of the existing work, with joints between existing and new work as inconspicuous as possible, all to approval of appearance.
- 381 FIX: Receive, unload, handle, store, protect, place and fasten in position; dispose of waste and surplus packaging. To include all labour, materials and site equipment for that purpose.
- 391 SUPPLY AND FIX: As above, but including supply of products, components or systems to be fixed, together with everything necessary for their fixing. All products, components or systems are to be supplied and fixed unless stated otherwise.

**DOCUMENTS PROVIDED ON BEHALF OF EMPLOYER**

- 410 ADDITIONAL COPIES OF DRAWINGS: Two copies of drawings (not counting any certified copy of the Contract Drawings) will be issued to the Contractor free of charge. Additional copies will be issued on request but will be charged to the Contractor.
- 430 ADDITIONAL COPIES OF SPECIFICATION: After execution of the Contract, two copies of the Specification will be issued to the Contractor in accordance with the Contract. Additional copies will be issued on request, if available, but will be charged to the Contractor.
- 440 DIMENSIONS: The accuracy of dimensions scaled from the drawings is not guaranteed. Obtain from the CA any dimensions required but not given in figures on the drawings nor calculable from figures on the drawings.
- 460 THE SPECIFICATION: All sections of the specification must be read in conjunction with Main Contract Preliminaries/General conditions.

**DOCUMENTS PROVIDED BY CONTRACTOR**

- 711 TECHNICAL LITERATURE: The Contractor is required to keep copies of the following on site, readily accessible for reference by all supervisory personnel:
- Manufacturers' current technical literature relating to all products to be used in the Works.
- 720 MAINTENANCE INSTRUCTIONS AND GUARANTEES:
- Retain copies delivered with components and equipment (failing which, obtain), register with manufacturer as necessary and hand over to CA on or before Practical Completion.
  - Notify CA of telephone numbers for emergency services by Subcontractors after Completion.

**A32 MANAGEMENT OF THE WORKS**

- 120 INSURANCES: Before starting work on site submit documentary evidence and/or policies and receipts for the insurances required by the Conditions of Contract.
- 130 INSURANCE CLAIMS: 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, forthwith give notice in writing to the Employer, the CA and the Insurers. Indemnify the Employer against any loss which may be caused by failure to give such notice.
- 150 OWNERSHIP: Materials arising from the alteration work are to become the property of the Contractor except where otherwise stated. Remove from site as work proceeds.
- 212 PROGRAMME:
- As soon as possible and before starting work on site prepare in an approved form a programme for the Works, which must make allowance for all:
    - Planning and mobilisation by the Contractor
    - Subcontractor's work
    - Running in, adjustment and testing of engineering services.
    - Work resulting from instructions issued in regard to the expenditure of provisional sums
    - Work by others concurrent with the ContractSubmit 2 copies to CA.
- 261 CA'S SITE MEETINGS:
- The CA will hold site meetings to review progress and other matters. Meetings will normally be held monthly.
  - Ensure the availability of accommodation and attend all such meetings.
  - The CA will chair the meetings and take and distribute minutes.
- 290 NOTICE OF COMPLETION: Give CA at least 2 weeks notice of the anticipated dates of Practical Completion of the whole or parts of the Works.
- 410 CASH FLOW FORECAST: As soon as possible and before starting work on site submit to the CA a forecast showing the gross valuation of the Works at the date of each Interim Certificate throughout the Contract period and based upon the programme for the Works.
- 420 EXISTING WORK: The extent and location of renewal of existing work must be agreed, at least on a provisional basis, with the CA before the work is started. Remove existing work in ways which will reasonably minimise the amount of removal and renewal.
- 430 ESTIMATED COST OF VARIATIONS: If the CA issues details of a proposed instruction with a request for an estimate of cost, submit such an estimate without delay and in any case within 7 days.
- 440 MEASUREMENTS: Give reasonable notice to the CA before covering up work which the CA requires to be measured.
- 461 INTERIM VALUATIONS: At least 7 days before the established dates for interim valuations submit to the CA details of amounts due under the Contract together with all necessary supporting information.

**A33 QUALITY STANDARDS/CONTROL****MATERIALS AND WORK GENERALLY**

- 110 GOOD PRACTICE: Where and to the extent that materials, products and workmanship are not fully detailed or specified they are to be:
- Of a standard appropriate to the Works and suitable for the functions stated in or reasonably to be inferred from the project documents, and
  - In accordance with relevant good building practice.
- 115 LISTED BUILDING: The adjacent property is a Grade II listed building and all the works are to be carried out in accordance with sound conservation practice and with due respect for the place and its historic fabric.
- 121 GENERAL QUALITY OF PRODUCTS:
- Products to be new unless otherwise specified.
  - For products specified to a British or European Standard obtain certificates of compliance from manufacturers when requested.
  - Where a choice of manufacturer or source is allowed for any particular product, the whole quantity required must be of the same type, manufacture and/or source unless otherwise approved. Produce written evidence of sources of supply when requested.
  - Ensure that the whole quantity of each product required is of consistent kind, size, quality and overall appearance.
  - Where consistency of appearance is desirable ensure consistency of supply from the same source. Do not use different colour batches where they can be seen together.
  - If products are prone to deterioration or have a limited shelf life, order in suitable quantities to a programme and use in appropriate sequence. Do not use if there are any signs of deterioration, setting or other unsatisfactory condition.
- 131 PROPRIETARY PRODUCTS:
- Handle, store, prepare and use or fix each product in accordance with its manufacturer's current printed or written recommendations. Inform CA if these conflict with any other specified requirement. Submit copies when requested.
  - Ancillary products and accessories to be of a type recommended by the main product manufacturer, unless otherwise specified.
  - The tender will be deemed to be based on the products specified and recommendations on their use given in the manufacturers' literature current at the date of tender.
  - Where British Board of Agrément certified products are used, comply with the limitations, recommendations and requirements of the relevant valid certificates.
- 141 CHECKING COMPLIANCE OF PRODUCTS: Check all documentation and the products themselves to ensure compliance with the project documents. Where different types of any product are specified, check to ensure that the correct type is being used in each location. In particular, check that:
- The sources, types, qualities, finishes and colours are correct, and match any approved samples.
  - All accessories and fixings which should be supplied with the products have been supplied.
  - Sizes are correct. Where tolerances are critical, measure a sufficient quantity to ensure compliance.
  - The delivered quantities are correct, to ensure that shortages do not cause delays in the work.
  - The products are clean, undamaged and in good condition.
  - Products which have a limited shelf life are not out of date.
- 151 PROTECTION OF PRODUCTS:
- Prevent over-stressing, distortion and other damage.
  - Keep clean and free from contamination. Prevent staining, chipping, scratching or other disfigurement, particularly of products exposed to view in the finished work. Keep dry to prevent premature setting, moisture movement and similar defects. Where appropriate store off the ground and allow free air movement between stored products.
  - Prevent excessively high or low temperatures and rapid changes of temperature in the products.
  - Protect adequately from rain, damp, frost, sun and other elements as appropriate. Ensure that products are at a suitable temperature and moisture content at time of use.
  - Ensure that sheds and covers are of ample size, in good weatherproof condition and well secured.
  - Keep different types and grades of products separately and adequately identified.
  - Keep products in their original wrappings, packings or containers until immediately before they are used. Wherever possible retain protective wrappings after fixing and until shortly before Practical Completion.
  - Ensure that protective measures are fully compatible with and not prejudicial to the products/materials.

- 161 **SUITABILITY OF RELATED WORK AND CONDITIONS:** Provide all trades with necessary details of related types of work. Before starting each type of work, ensure that:
- Previous work is appropriately complete, in accordance with the project documents, to a suitable standard and in a suitable condition to receive the new work.
  - All necessary preparatory work has been carried out, including provision for services, openings, supports, fixings, damp proofing, priming and sealing.
  - The environmental conditions are suitable, particularly that the building is suitably weathertight.
- 171 **GENERAL QUALITY OF WORKMANSHIP:**
- Operatives must be appropriately skilled and experienced for the type and quality of work.
  - Take all necessary precautions to prevent damage to the work from frost, rain and other hazards .
  - Inspect components and products carefully before fixing or using and reject any which are defective.
  - Fix or lay securely, accurately and in alignment.
  - Where not specified otherwise, select fixing and jointing methods and types, sizes and spacings of fastenings in compliance with section Z20.
  - Provide suitable packings at screwed and bolted fixings to take up tolerances and prevent distortion. Do not overtighten.
  - Adjust location and fixing of components and products so that joints which are open to view are even and regular.
  - Ensure that all moving parts operate properly and freely. Do not cut, grind or plane prefinished components and products to remedy binding or poor fit without approval.
- 191 **WATER FOR THE WORKS:** If other than mains supply is proposed provide evidence of suitability.

#### **SAMPLES/APPROVALS**

- 211 **SAMPLES:** Where approval of a product is specified the requirement for approval relates to a sample of the product and not to the product as used in the Works. Submit a sample or other evidence of suitability. Do not confirm orders or use the product until approval of the sample has been obtained. Retain approved sample in good, clean condition on site. Ensure that the product used in the Works matches the approved sample.
- 230 **APPROVALS:** Where and to the extent that products or work are specified to be approved or the CA instructs or requires that they are to be approved, the same must be supplied and executed to comply with all other requirements and in respect of the stated or implied characteristics either:
- To the express approval of the CA or
  - To match a sample expressly approved by the CA as a standard for the purpose.

#### **ACCURACY/SETTING OUT GENERALLY**

- 321 **SETTING OUT:** Check the levels and dimensions of the site against those shown on the drawings, and record the results on a copy of the drawings. Notify CA in writing of any discrepancies and obtain instructions before proceeding.
- 322 **SETTING OUT:** Inform CA when overall setting out is complete and before commencing construction.
- 341 **APPEARANCE AND FIT:**
- Arrange the setting out, erection, juxtaposition of components and application of finishes to ensure satisfactory fit at junctions, no practically or visually unacceptable changes in plane, line or level and a true, regular finished appearance.
  - Wherever satisfactory accuracy, fit and/or appearance of the work are likely to be critical or difficult to achieve obtain approval of proposals or of the appearance of the relevant aspects of the partially finished work as early as possible.

#### **SERVICES GENERALLY**

- 410 **SERVICES REGULATIONS:** Any work carried out to or which affects new or existing services must be in accordance with the Bye Laws or Regulations of the relevant Statutory Authority.
- 440 **MECHANICAL AND ELECTRICAL SERVICES:** must have final tests and commissioning carried out so that they are in full working order at practical completion.

**SUPERVISION/INSPECTION/DEFECTIVE WORK**

- 550 DEFECTS IN EXISTING CONSTRUCTION to be reported to CA without delay. Obtain instructions before proceeding with work which may:
- Cover up or otherwise hinder access to the defective construction, or
  - Be rendered abortive by the carrying out of remedial work.
- 560 TIMING OF TESTS AND INSPECTIONS: Agree dates and times of tests and inspections with CA several days in advance, to enable the CA and other affected parties to be present. On the previous working day to each such test or inspection confirm that the work or sample in question will be ready or, if not ready, agree a new date and time.
- 570 PROPOSALS FOR RECTIFICATION OF DEFECTIVE WORK/PRODUCTS:
- As soon as possible after any part(s) of the work or any products are known to be not in accordance with the Contract, or appear that they may not be in accordance, submit proposals to CA for opening up, inspection, testing, making good, adjustment of the Contract Sum, or removal and re-execution.
  - Such proposals may be unacceptable to the CA, and contrary instructions may be issued.

**WORK AT OR AFTER COMPLETION**

- 611 GENERALLY:
- Make good all damage consequent upon the work.
  - Remove all temporary markings and protective coverings.
  - 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 to be as recommended by manufacturers of products being cleaned, and to be such that there is no damage or disfigurement to other materials.
  - Obtain COSHH dated data sheets for all materials used for cleaning and ensure they are used only as recommended by their manufacturers.
  - Touch up minor faults in newly painted/repainted work, carefully matching colour. Repaint badly marked areas back to suitable breaks or junctions.
  - Adjust, ease and lubricate moving parts as necessary to ensure easy and efficient operation, including doors, windows, drawers, ironmongery, appliances, valves and controls.
- 640 SECURITY AT COMPLETION: Leave the Works secure with all accesses locked. Account for and adequately label all keys and hand over to Employer with itemised schedule, retaining duplicate schedule signed by Employer as a receipt.
- 650 RECTIFICATION: Make arrangements with the CA and give reasonable notice of the precise dates for access to the various parts of the Works for purposes of making good defects. Inform CA when remedial works to the various parts of the Works are completed.

**A34 SECURITY/ SAFETY/ PROTECTION**

- 110 PRECONSTRUCTION INFORMATION
- Location: Integral with the project Preliminaries, including but not restricted to the following sections:
    - Description of project: Sections A10 and A11.
    - Client's consideration and management requirements: Sections A12, A13 and A36.
    - Environmental restrictions and on-site risks: Section A12, A35 and A34.
    - Significant design and construction hazards: Section A34.
    - The Health and Safety File: Section A37.
- 140 CONSTRUCTION PHASE HEALTH AND SAFETY PLAN
- Submission: Present to the Employer Client no later than not later than two weeks before 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 CDM Regulations.
  - Content: Develop the plan from and draw on the Pre-tender Health and Safety Plan/ Preconstruction information.

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- 150 SECURITY
  - Protection: Adequately 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.
- 160 STABILITY
  - Responsibility: Maintain the stability and structural integrity of the Works during the Contract.
  - Design loads: Obtain details, support as necessary and prevent overloading.
- 170 OCCUPIED PREMISES
  - Extent: Existing buildings will be occupied and/ or used during the Contract unless prior agreement between contractor/client
  - Works: Carry out without undue inconvenience and nuisance and without danger to occupants and users.
  - Overtime: If compliance with this clause requires certain operations to be carried out during overtime, and such overtime is not required for any other reason, the extra cost will be paid to the Contractor, provided that such overtime is authorised in advance.
- 210 EMPLOYER'S REPRESENTATIVE SITE VISITS
  - Safety: Submit details in advance, of safety provisions and procedures (including those relating to materials, which may be deleterious), which will require their compliance when visiting the site.
  - Protective clothing and/ or equipment: Provide on site for the Employer, the Employer's representatives and other visitors to the site.
- PROTECT AGAINST THE FOLLOWING**
- 330 NOISE CONTROL
  - Standard: Comply generally with the recommendations of BS 5228-1, clause 9.3 to minimize noise levels during the execution of the Works.
  - Noise levels from the works: Maximum level 85 dB(A) when measured from 3 metres.
  - Equipment: Fit compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.
  - Restrictions: Do not use:
    - Pneumatic drills and other noisy appliances without consent.
    - Radios or other audio equipment or permit employees to use.
    - Headphones or other devices limiting operatives awareness of their surroundings.
- 340 POLLUTION
  - Prevention: Protect the site, the Works and the general environment including streams and waterways against pollution.
  - Contamination: If pollution occurs inform immediately, including the appropriate Authorities and provide relevant information.
- 351 PESTICIDES
  - Use: Only where specified or approved, and then only suitable products listed in the UK Pesticide Guide.
  - Restrictions: Work near water, drainage ditches or land drains must comply with the 'Guidelines for the use of herbicides on weeds in or near watercourses and lakes'.
  - Containers: Comply with manufacturer's disposal recommendations. Remove from site immediately empty or no longer required.
  - Competence: Operatives must hold a BASIS Certificate of Competence, or work under supervision of a Certificate holder.
  - Any chemicals used must be of a type guaranteed not harmful to bats.
- 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 BASED MATERIALS
  - Duty: Report immediately any suspected materials discovered during execution of the works.
    - Do not disturb.
    - Agree methods for safe removal or encapsulation.



- 380 FIRE PREVENTION
- Duty: Prevent personal injury, death, and damage to the Works or other property from fire.
  - Standard: Comply with Joint Code of Practice 'Fire Prevention on Construction Sites' published by the Construction Confederation and The Fire Protection Association (The 'Joint Fire Code').
- 390 SMOKING ON SITE
- No smoking or vaping allowed on site. No smoking or vaping in the building.
- 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 application of heat to prevent:
    - Blistering and failure of adhesion.
    - Damage due to trapped moisture.
    - Excessive movement.
- 420 INFECTED TIMBER
- Removal: Where instructed to remove timber affected by fungal/ insect attack from the building, minimize the risk of infecting other parts of the building.
- 430 WASTE
- Includes: Rubbish, debris, spoil, containers and surplus material.
  - Minimize: Keep the site and Works clean and tidy.
  - Remove: Frequently and dispose off site in a safe and competent manner:
    - Non-hazardous material: In a manner approved by a Waste Regulation Authority.
    - Hazardous material: As directed by the Waste Regulation Authority and in accordance with relevant regulations.
    - Documentation: Retain on site.
  - Voids and cavities in the construction: Remove rubbish, dirt and residues before closing in.
- 440 ELECTROMAGNETIC INTERFERENCE
- Duty: Prevent excessive electromagnetic disturbance to apparatus outside the site.
- PROTECT THE FOLLOWING**
- 510 EXISTING SERVICES
- Notice: Notify the electrical service authority of proposed works and obtain protection as necessary before starting work: Check and mark positions of mains/ services.
  - Work adjacent to services:
    - Adequately protect, and prevent damage to services: Do not interfere with their operation without consent of service authorities/ statutory undertakers or other owners.
- 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.
- 560 EXISTING FEATURES
- Protection: Prevent damage to existing buildings, fences, gates, walls, roads, paved areas and other site features, which are to remain in position during execution of the Works.
- 570 EXISTING WORK
- Protection: Prevent damage to existing roofs not being replaced.
  - Removal: Minimum amount necessary.
  - Replacement work: To match existing.
- 580 BUILDING INTERIORS
- Protection: Prevent exposure to weather during course of alteration work permitting execution to proceed. See Section A36 for temporary works.
- 601 EXISTING FURNITURE, FITTINGS AND EQUIPMENT

- Protection: Prevent damage or obtain further instruction from CA to move as necessary to enable the Works to be executed.
- 610 **ESPECIALLY VALUABLE/ VULNERABLE ITEMS**
- Contractor to review each stage of the work to ensure client is informed to remove loose valuable items before commencement of the works.
  - Protection: Ensure provision and maintenance of special protective measures to prevent damage to the following:
    - Existing wooden floor in the Charter Hall
    - Existing staging, wings, curtains and stage lighting in the Charter Hall
    - Furniture in the Charter Hall
    - Method statement: Submit within one week of request describing special protection to be provided.
- 615 **BATS**
- The Contractor should be vigilant and mindful of the statutory protection afforded to bats and their roosts and should report to the CA any evidence of bats in the area of the works and ceased work in the affected area pending instructions.
- An Ecologist's report is available for inspection and concluded:
- Any roof features that are to be opened-up shall be done so carefully, and by hand, by a construction team experienced in working on buildings with bats. Should bats be identified, works shall cease immediately, and the advice of a licensed bat ecologist shall be sought.*
- 620 **ADJOINING PROPERTY**
- Permission – obtain as necessary from owners if required to erect scaffolding on or otherwise use adjoining property.
- 630 **EXISTING STRUCTURES**
- Duty: Check proposed methods of work for effects on adjacent structures inside and outside the site boundary.
  - Supports: During execution of the Works:
    - Provide and maintain all incidental shoring, strutting, needling and other supports as may be necessary to preserve stability of existing structures on the site or adjoining, that may be endangered or affected by the Works.
    - Do not remove until new work is strong enough to support existing structure.
    - Prevent overstressing of completed work when removing supports.
  - Adjacent structures: Monitor and immediately report excessive movement.
  - Standard: Comply with BS 5975 and BS EN 12812.
- A35 SPECIFIC LIMITATIONS ON METHOD/SEQUENCE/TIMING**
- 130 **METHOD/SEQUENCE OF WORK:**
- A sequence of work is to be agreed at tender stage.
- 190 **WORKING HOURS:**
- 8:00 am to 5:00pm Monday to Friday.  
Work is not to be carried out outside these hours without permission from the CA
- A36 FACILITIES/TEMPORARY WORK/SERVICES**
- 110 **LOCATIONS:** Inform CA of the intended siting of skips, temporary works and services.
- 120 **MAINTAIN,** alter, adapt and move temporary works and services as necessary. Remove when no longer required and make good.
- 281 **EXISTING ACCOMMODATION:** The existing building may not be used as temporary accommodation unless agreed with the employer.
- 320 **TEMPORARY FENCE(S):**

- Provide adequate warning signs and barriers in the buildings and around the working areas having regard to public access.
- 350 **TEMPORARY ROOF(S):**  
Provide over all the roofs to be repaired, an appropriate temporary cover. This may be designed with the scaffold as an independent structure for exposed weather conditions. See Clause A30/500 for method statement and Works Schedule 3.
- 361 **NAME BOARD:** Obtain approval for and provide a suitable temporary name board on the scaffold :  
 - Standard size sign for client with project name to an agreed text.  
 - Name of Architect. Standard sign.  
 - If the Contractor wishes, names of Contractor and Subcontractors.
- 420 **LIGHTING AND POWER:** Electricity supply from the Employer's mains may be used for the Works as follows:  
 - Meter readings to be taken at start and completion.  
 - Supply in the kitchen.  
 - The Employer will not be held responsible for the effects of any failure or restriction in supply.  
 - Supply voltage: 240 volts single phase twin socket.
- 431 **WATER** for the Works will be made accessible to the Contractor. Nature of supply: Kitchen.

### **A37 OPERATION/ MAINTENANCE OF THE FINISHED WORKS**

#### **GENERALLY**

- 110 **THE BUILDING MANUAL**  
 - Responsibility: 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.  
 - Delivery to: CA by (date) two weeks before completion.
- 115 **THE HEALTH AND SAFETY FILE**  
 - Responsibility: contractor.  
 - Content: Obtain and Provide the following information: flat roof system, roof ventilation products, pointing mix and ratios, ceiling access hatch, roofing membranes.  
 - Delivery to: CA by (date) two weeks before 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.

### **A54 PROVISIONAL WORK/ITEMS**

- 310 **Contingencies.**  
 - Include the Provisional Sum of £10,000 which may be used only as directed by the architect.

320 See Section 3 Schedule of Works for provisional items of repair.

**SECTION 2: MATERIALS AND WORKMANSHIP**

**F20 NATURAL STONE RUBBLE WALLING**

- 15 STONE WALLING: Coursed squared and random rubble brought to courses.
- Stone: Generally to be granite and natural stone.  
Finish: natural face.
  - Mortar: As section Z21.  
Sand: Sharp and well graded, 5mm down, to approved sample, e.g. CLS 11 or CLS 90 supplied by the Cornish Lime Co. (01208 79779).  
Mix: 1:2:9 cement, hydrated lime, sand.
  - Joints: Flush and full as clause 40.
- 16 STONE WALLING: REPOINTING:
- Mortar: As section Z21.
  - Sand: Sharp and well graded, 5mm down, to approved sample, e.g. CLS 11 or CLS 90 as supplied by the Cornish Lime Co.
  - Mix: 1:2:9 cement, hydrated lime, sand.
  - Joints: Flush and full as clause 40.
- 20 WORKMANSHIP GENERALLY:
- Cutting, dressing, laying and jointing of stone to be carried out by skilled masons.
  - Store stone clear of the ground, protect from adverse weather and keep dry.
  - Dampen stones to control suction as necessary and lay on their natural bed on a full even bed of mortar with all joints filled and between 12–18 mm wide. Evenly distribute different shapes, sizes and colours throughout the face of the wall to give a consistent overall appearance and good bond with no long continuous vertical joints.
  - Accurately plumb all wall faces, angles and features. Set out carefully to ensure satisfactory junctions and joints with adjoining or built-up elements and components.
  - Prevent damage to stonework and keep clean during construction and until Practical Completion. Ensure that no mortar encroaches on face when laying.
  - Turn back scaffolding boards at night and during heavy rain.
- 40 JOINTING:
- Finish exposed joints neatly and consistently as the work proceeds. After the initial set has taken place, stipple joints with a stiff brush to remove laitance exposing the aggregate, to compact the joint and to produce a weathered appearance. A flush finish full joint, is required unless otherwise specified or instructed. On no account should the mortar be spread beyond the joint and on to the face of the masonry.
- 45 ADVERSE WEATHER:
- Do not use frozen materials and do not lay or repoint on frozen surfaces.
  - Do not lay stones or repoint:
    - When the air temperature is at or below 5°C.
  - Maintain temperature of the work above freezing until mortar has fully set.
  - Protect newly erected walling against rain and snow by covering when precipitation occurs and at all times when work is not proceeding.
  - Rake out and replace mortar damaged by frost and where instructed, rebuild damaged work.
- 50 PROTECTION:
- Protect completed work from hot sunshine or drying wind with sacking or polythene sheeting to prevent rapid drying out and in winter sheet over the scaffolding to give protection.

**G20 CARPENTRY / TIMBER FRAMING / FIRST FIXING**

- 01 TIMBER GENERALLY: REPAIRS:
- Any new timber used in the repair to or replacement of existing timber shall be on a like-to-like basis of a similar girth and species to the existing members being replaced or repaired.
- 05 GRADED SOFTWOOD FOR REPAIR OF STRUCTURAL TIMBERS:
- Grading standard: To the appropriate BS EN 14081-1-compliant standard.
  - Strength class to BS EN 338: C24.
  - Treatment: Preservative.
    - Standard: To British Wood Preserving and Damp-proofing Association Commodity Specification C8.
    - Type: Service life 50 years.

- 10      **UNGRADED SOFTWOOD FOR MISCELLANEOUS FRAMING AND BATTENING**
- Quality of timber: Free from decay, insect attack (except pinholes borers) and with no knots wider than half the width of the section.
  - Surface finish: Sawn.
  - Treatment: Preservative.
    - Standard: To British Wood Preserving and Damp-proofing Association Commodity Specification C8.
    - Type: Service life 50 years.
- 15      **PLYWOOD FOR VALLEYS/ SUPPORTS ETC**
- Standard: To an approved national standard.
  - Service class to BS EN 1995-1-1: 3 for use in exterior conditions.
  - Use class to BS EN 335: 4.
  - Nominal thickness: 22 mm
  - Appearance class to BS EN 635: III not visible.
  - Bonding quality to BS EN 314-2: Class 3 (WBP)
  - Finish: unsanded.
  - Treatment: C8
- 30      **SELECTION AND USE OF TIMBER:**
- Timber members damaged, crushed or split beyond the limits permitted by their grading: Do not use.
  - 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.
- 35      **PROCESSING TREATED TIMBER:**
- Cutting and machining: Maximize before treatment.
  - Extensively processed timber: Retreat timber sawn lengthways, thickened, planed, ploughed, etc.
  - Surfaces exposed by minor cutting and drilling: Treat with two flood coats of a solution recommended by main treatment solution manufacturer.
- 40      **MOISTURE CONTENT:**
- Moisture content of timber and wood based products at time of installation: Not more than:
    - Covered in generally unheated spaces: 24%.
- 99      **FASCIAS/ BARGES/ SOFFITS**
- Material: Douglas fir.
  - Treatment: vacuum treated
  - Finish: paint
  - Fascia/ Barge Colour: Farrow & Ball, 14 Berrington Blue 'U/C18' to match Market Street facing gutter.
  - Soffit Colour: Farrow & Ball, 22 Light Blue 'U/C22' to match east gables existing.
  - Nominal depth: as drawings.
  - Edge profile: square.
  - Accessories/ Other requirements: proprietary over fascia eaves ventilator
  - Fixings: stainless steel
  - Installer: A contractor approved by the system manufacturer.

## **H62      NATURAL SLATING**

- 05      **ROOF SLATING WITH COUNTERBATTENS**
- Substrate: lower 2/3 slope 25 x 140 sarking boards laid diagonally over 100 x 140 purlins laid flat to approx. 950 mm centres. Upper 1/3 slope 100 x 45 softwood rafters at 400 centres
  - Pitch: 40 degrees.
  - Underlay: Glidevale Protect Viking Air - Type LR Air & Vapour Permeable Roofing Underlay.
    - Head-lap (minimum): 150 mm.
  - Counterbattens:
    - Size: 38 x 50 mm
    - Fixing: on rigid sarking – nonferrous, countersunk screw fixings to sarking boards between purlins at not more than 300 mm centres, nail fixing acceptable over purlins at not more than 300 mm centres.

- Fixing: on rafters – at centres coinciding with rafters.
  - Battens:
    - Size: 38 x 50 mm
    - Fixing: using sherardized ring shank nails to BS 1202 Parts 2 & 3
  - Slates:
    - Supplier: Welsh Slate, Penrhyn Quarry, Bethesda, Gwynedd, LL57 4YG. Tel. 01248 600 656
    - Product reference: Dark Blue Grey
    - Grade: County 7 mm
    - Size: 500 x 250 mm
    - Head-lap (minimum): 100 mm.
    - Fixing: Two copper nails to each slate.
- 20 REMOVING EXISTING SLATING
- General: Carefully remove slates by taking out nails and removing battens and nails from rafters with minimum disturbance.
  - Slates: will become the property of the employer for sale to salvage company.
- 25 UNDERLAY
- Laying: Maintain consistent tautness or drape 10mm between supports.
  - Vertical laps (sidelaps) 100mm wide, coinciding with supports (counterbattens).
  - Fixing: Galvanized steel or copper 20 x 3mm extra large clout head nails.
  - Eaves: Glidevale Protect OFV Eaves Skirt – instead of traditional tilting fillet.
- 30 BATTENS/ COUNTERBATTENS
- Timber: Sawn softwood.
    - Standard: To BS 5534, Annex D.
    - Moisture content at time of fixing and covering (maximum): 22%.
  - Preservative treatment: As section Z12 and BWPDA Commodity Specification C8.
    - Type: Organic solvent.
- 32 BATTEN FIXING
- Setting out: Align parallel to ridge in straight horizontal lines to gauge of slates. Align on adjacent areas
  - Batten length (minimum): Sufficient to span over three supports.
  - Joints in length: Butt centrally on supports. Joints must not occur more than once in any group of four battens on one support.
  - Additional battens: Provide where unsupported laps in underlay occur between battens.
- 35 SLATE FIXING
- General: Fix slating and accessories to make the whole sound and weathertight at earliest opportunity.
  - Setting out: To true lines and regular appearance. Lay slates with an even overall appearance, with slightly open (maximum 5 mm) butt joints. Align tails.
  - Slate thickness: Consistent in any one course. Lay with thicker end as tail.
  - Ends of courses: Use extra wide slates to maintain bond and to ensure that cut slates are as large as possible. Do not use slates less than 150 mm wide.
  - Top course: Head-nail short course to maintain gauge.
  - Fixing: Centre nail each slate twice through countersunk holes 20-25 mm from side edges.
    - Nails: Copper clout to BS 1202-2.
    - Nail dimensions: Determine in accordance with BS 5534 to suit site exposure, withdrawal resistance. Slate supplier's recommendations - 3.35 mm shank diameter and length to provide not less than 18mm penetration into battens.
    - Fix wide slates with three nails.
- 47 EAVES
- Slate support: continuous Glidevale Protect OFV Eaves Skirt.
  - Undercourse and first course slates: Fix with tails projecting 50 mm over gutter or to centre of gutter.
- 53 DRY VERGES WITH NAILED UNDERCLOAK
- Underlay: Carry over full width of verge.
  - Undercloak: Slates nail fixed, sloping towards verge and projecting 38-50 mm beyond face of gable slating.
  - Slating battens: Carry onto undercloak and finish 100 mm from verge edge.
  - Verge Slates: Bed flush with undercloak on 75 mm wide bed of mortar. Point with flush profile.
- 66 METAL VALLEYS



- Underlay: Cut over tilting fillets to lap onto metal valley. Do not lay under metal.
  - Roof slates: Cut extra wide slates adjacent to valley to fit neatly.
    - Valley width between slates: min. 100 mm.
- 70 SIDE ABUTMENTS
- Underlay: Turn up not less than 100 mm at abutments.
  - Abutment slates: Cut as necessary. Fix close to abutments.
  - Soakers: Interleave and turn down over head of abutment slates.
- 71 TOP EDGE ABUTMENTS
- Underlay: Turn up not less than 100 mm at abutments.
  - Top slate courses: Fix close to abutments.
- 74 RIDGE TILES TO ALL ROOFS
- Supply: supplement to match existing set aside for re-use as required.
    - Finish/ Colour: Grey.
    - Installation: dry fixed ventilated.
    - Angles: To suit roof pitches.
    - Material: Clay.
    - Location: See drawings.
    - Bedding: As Clause H62/75.
- 75 DRY VENTILATED TILE RIDGES
- Underlay: Provide air gap at apex.
  - Dry ventilated ridge system:
    - Manufacturer: Protect Membranes
    - Product reference: Protect Fulmetal Rediroll ventilated dry ridge system.
  - Ridge tiles: existing plain angle clay tiles set aside for reuse.
- H71 LEAD SHEET COVERINGS/ FLASHINGS**
- 10 GUTTER LININGS TO SLATE ROOFS: EAST EDGE CHARTER HALL
- Lead: Code 6 in lengths not exceeding 2250mm. To resist underside corrosion the lead should be protected with a chalk enhanced emulsion, coated with chalk slurry on underside and laid on waterproof building paper to BS1521 Class A.
    - The chalk slurry is to be mechanically mixed 24 hours before use involving Dulux Weathershield white external paint 5 litres to 1 litre approx water with 5 litres of chalk powder – SF 100 or BM 200 grade and 100mls of green dye. Apply with brush to underside of lead after bossing and before fixing in place over the building paper. Ensure surface is clean and a coating thickness of 150-200 micrometres up to within 30mm of edges and allowed to dry before laying down.
    - Cross joints: Drips as clause 86.
    - Spacing: As shown on drawings.
    - Outlet(s): form chute into proprietary PVC-U hopper.
- 15 VALLEY GUTTER LININGS TO SLATE ROOFS ON ROOF SLOPE D – EAST GABLE DORMERS
- Underlay: waterproof building paper to BS1521 Class A.
  - Lead:
    - Thickness: 1.75 or 1.80 mm (Code 4).
  - Laying: Over and beyond tilting fillets. In lengths not more than 1500 mm.
    - Cross joints: Lapped not less than 160 mm
  - Fixing: Welt edges. Nail top edge of each sheet. Dress bottom edge neatly into eaves gutter.
- 30 APRON FLASHINGS AND CAPPINGS
- Lead:
    - Thickness: 1.75 or 1.80 mm (Code 4).
  - Dimensions:
    - Lengths: Not more than 1500 mm.
    - End to end joints: Laps not less than 100 mm.
    - Upstand not less than 75 mm.
    - Cover to abutment: Not less than 100 mm .
  - Fixing:

- Top edge: Lead wedges into bed joint.
  - Bottom edge: Clips.  
Material: code 6 lead.  
Spacing: max 200 mm .
- 60 MATERIALS AND WORKMANSHIP GENERALLY
- Lead production method:
    - Rolled, to BS EN 12588.
    - Machine cast: BBA certified.
  - Identification: Colour marked for thickness/ code, weight and type.
  - Workmanship standard: To BS 6915 and latest editions of 'Rolled lead sheet. The complete manual' published by the Lead Sheet Training Academy (LSTA).
  - Fabrication and fixing: To provide a secure, free draining and weathertight installation.
  - Marking out: Do not use scribes or other sharp instruments to mark out lead without approval.
  - Solder: Use only where specified.
  - Finished leadwork: Fully supported, adequately fixed to resist wind uplift but also able to accommodate thermal movement without distortion or stress.
  - Patination oil: Apply smear coating to all visible lead, evenly in one direction and in dry conditions.
- 62 IN SITU LEADWELDING: will not be permitted. Welding to be carried out away from the roof.
- 65 EXISTING LEAD TO BE REMOVED will become the property of the Contractor, unless used in the works for sacrificial lead strip, wedges etc.
- 75 TIMBER FOR USE WITH LEADWORK:
- Planed, free from wane, pitch pockets, decay and insect attack except pinhole borers.
  - Moisture content: Not more than 22% at time of covering.
  - Preservative treatment: Organic solvent as Section Z12 and BWDA Commodity Specification C8.
- 76 UNDERLAY
- Handling: Prevent tears and punctures.
  - Laying: Butt or overlap jointed onto a dry substrate.
    - Fixing edges: With copper or stainless steel staples or clout nails.
    - Do not lay over roof edges.
    - Turn up at abutments.
  - Protection: Keep dry and cover with lead at the earliest opportunity.
- 78 FIXING LEAD SHEET
- Top edge: Secured with two rows of fixings, 25 and 50 mm from edge.
  - Fixings:
    - Nails to timber substrates: Copper clout nails to BS1202-2, or stainless steel (austenitic) clout nails to BS 1202-1.  
Shank type: Annular ringed, helical threaded or serated.  
Length: Not less than 20 mm or equal to substrate thickness.
    - Screws to concrete or masonry substrates: Brass or stainless steel to BS 1210.  
Diameter: Not less than 3.35 mm.  
Length: Not less than 19 mm.  
Washers and plastics plugs: Compatible with screws.
- 83 WEDGE FIXING INTO JOINTS/ CHASES FOR JOINTS OF 10MM
- Joint/ chase: Rake out to a depth of not less than 25 mm.
  - Lead: Dress into joint/ chase.
    - Fixing: Lead wedges at not more than 450 mm centres, at every change of direction and with at least two for each piece of lead.
    - Mortar: as Section Z21.
- 86 DRIP:
- Dress underlap into rebate along top edge of drip and fix with one row of nails on centre line of rebate.
  - Dress overlap over 65mm. high drip and form without a splashlap. All in accordance with Lead Sheet Training Academy (LSTA).
- 91 SCREW FIXING INTO JOINTS/CHASES FOR JOINTS OF 20MM
- Carefully rake out joint/chase to a depth of not less than 25mm.

- Dress lead into joint/chase with turn-up and fix with stainless steel screws and washers in wall plugs at not more than 450mm centres. Repoint in mortar as Section Z21 and silicone sealant backing including, isolating with building paper.

## **J21 MASTIC ASPHALT ROOFING/ INSULATION/ FINISHES**

### **30 REMOVING EXISTING MASTIC ASPHALT FLAT ROOF F7**

- Areas to be removed: defective areas.
- Existing roof: Do not damage.
- Timing: Only remove sufficient mastic asphalt as will be replaced and made weathertight on same day.

### **35 MAKING GOOD EXISTING MASTIC ASPHALT FLAT ROOF F7**

- Existing items to be removed: defective areas.
- Defective areas of mastic asphalt: Soften and carefully cut out.
  - Hammers, chisels, etc: Do not use to cut cold mastic asphalt.
  - Substrate: Clean and dry.
  - Separating membrane: Make good.
- Mastic asphalt: Patch level with existing surface in two coats, the top coat lapped minimum 75 mm on to existing asphalt and to half its depth.

### **50 APPLYING METAL LATHING TO VERTICAL/ SLOPING TIMBER SURFACES**

- Placing:
  - Long way of mesh: Horizontal.
  - Pitch of horizontal strands: Sloping upwards away from background.
- Butt joints: Wire tie between sheets at 75 mm centres.
- Method of fixing: stainless steel staples.
  - Perimeter edges: 75 mm centres.
  - General areas (maximum): 150 mm vertical and horizontal centres.

### **75 LAYING MASTIC ASPHALT**

- Standard: To BS 8218.
- Suitability of substrate: Secure, even textured, clean, dry and frost free.
- Application:
  - In bays to even thickness.
  - Re-heated asphalt: Do not use.
- External angles, junctions and tuck-ins: Maintain full thickness of asphalt.
- Fillets at internal angles: Solid, fully fused to asphalt coating.
- Top edge: Tuck into 25 x 25 mm continuous splayed chase or groove.
- Previously laid coats: Protect whilst exposed.
- Successive coats:
  - Timing: Apply without delay.
  - Coats: Apply at right angles to preceding.
  - Stagger joints between bays in consecutive coats (minimum): 75 mm.
- Condition of contact edges of previously laid bays: Warm and clean.
- Blowing: Pierce and make good affected areas while mastic asphalt is still at working temperature.
- Unfinished areas of roof: Keep dry.
- Completion: During final floating operation, whilst asphalt is still warm, apply sand to horizontal surfaces and rub in well using wooden float. Remove surplus material.
- Completed coating: Smooth and free from imperfections. Firmly adhered, weatherproof and free draining.

### **95 SOLAR REFLECTIVE PAINT**

- Manufacturer: contractor's choice.
- Colour: silver.
- Application: as manufacturer or generally: Primer – 10-15m<sup>2</sup>/L, Finish 7-9 m<sup>2</sup>/L.
- Surface coverage: Even and full, coats fully bonded.

## **J41 REINFORCED BITUMEN MEMBRANE ROOF COVERINGS**

- 10 BUILT-UP REINFORCED BITUMEN MEMBRANE WARM DECK ROOF COVERING TO FLAT ROOF F1 – TORCH FREE ZONE – ALTERNATIVE MEMBRANES AND APPLICATION TO DETAILED BAUDER SPECIFICATION IN APPENDIX.**

The application of torch-on materials to or in the vicinity of combustible deck materials does not conform to the recommendations of BS8217:2005, clause 7.3.2.1, paragraph 3, or the advice given in the 'Safe2Torch' document produced by the National Federation of Roofing Contractors. When encountering an area which contains combustible material a minimum 900mm deep zone of the flat area around the material and any detail flashing to the material itself there is a requirement for 'TORCH-FREE' detailing. In these instances an appropriate alternative Bauder self-adhesive membrane should be used as described in: 'TORCH-FREE' & 'Safe to Torch' DETAILING - ALTERNATIVE MEMBRANES AND APPLICATION. The 'TORCH-FREE' & 'SAFE TO TORCH' detailing and method of application will be described in the Additional Items section and the 'TORCH- FREE' & 'SAFE TO TORCH' DETAILING section of this specification and further detailed in the Bauder 'TORCH-FREE' & 'Safe to Torch' drawings.

- Substrate: existing timber flat roof joists.
    - Preparation: supply and fix on new softwood firrings New Plywood deck (designed and constructed to provide a minimum finished slope of 1-4°).
    - Primer type and application: Bauder Multi-Purpose Primer or Bauder SA Bonding Primer, applied to the roof substrate and all upstands and skirtings.:
  - Air and vapour control layer: BauderTEC KSD Mica, 2.5 mm thick aluminium lined, elastomeric bitumen self-adhesive vapour barrier.
  - Insulation: Bauder PIR FA-TE flat board, aluminium foil faced, highly efficient rigid urethane insulation.
    - Edges: Bauder 50 mm x 50 mm PIR angle fillets for use with insulated & un-insulated upstands.
    - Thickness: 140 mm .
  - Waterproof covering:
    - System manufacturer: BAUDER TOTAL ROOF SYSTEM.
    - First layer: BauderTEC KSA DUO, 3 mm thick, 200g/m2 glass-fibre reinforced, elastomeric self-adhesive bitumen underlayer.
      - Attachment: fully bond
    - Top layer/ Capsheet: Bauder KSO-P SN / KSO SN self-adhesive capping sheet, applied using the hot air hand tools approved for use with bituminous systems. Please note that Bauder Multi-Purpose Primer must be applied to the underlayer prior to installation of the self-adhesive capping sheet.
      - Colour: charcoal grey finish.
      - Attachment: fully bond .
- 15 ROOFING GENERALLY
- Substrates: Secure, clean, dry, smooth and free from frost, contaminants, voids and protrusions.
  - Adverse weather: Do not lay coverings in high winds, wet or damp conditions or in extremes of temperature unless effective temporary cover is provided over working area.
  - Unfinished areas of roof: Keep dry. Protect edges of laid membrane from wind action.
  - Completed coverings: Firmly attached, fully sealed, smooth, weatherproof and free draining.
- 20 RENEWING EXISTING COVERINGS FLAT ROOF F1
- Areas to be renewed: flat roof over WC's, Lobby and Store.
  - Substrate: Do not damage.
  - Timing: Only remove sufficient coverings as will be renewed and made weathertight on same day.
- 30 TIMBER TRIMS, ETC
- Quality: Planed, free from wane, pitch pockets, decay and insect attack (except ambrosia beetle damage).
  - Moisture content at time of covering (maximum): 22%.
  - Preservative treatment: Please note organic solvent based timber preservatives are not permitted, as these attack bitumen based materials..
  - Fixing: Sherardized steel screws at maximum 500 mm centres.
- 35 JOINTS IN RIGID BOARD SUBSTRATES
- Cover strips: Bitumen membrane to BS 8747, class S2P3, 150 mm wide. Lay centrally over substrate joints and adhere with bonding compound along edges only.
- 40 LAYING AIR AND VAPOUR CONTROL LAYER
- Attachment: cold applied and fully bonded.
  - Laps: 100 mm minimum, fully bitumen sealed.
  - Penetrations: Fully seal using bonding or taping methods recommended by manufacturer.
  - Exposed edges: Enclose with vapour control layer to provide an adequate seal when overlapped by roof covering. The vapour control layer must be dressed up all upstands and to the full extent of the detail. This is to ensure that the detail is fully encapsulated to reduce the risk to exposed combustible materials. The

contractor is also to form all details in such a way that a fully bonded 100mm lap is obtained between the vapour control layer and the underlayer – please see Bauder Bituminous detail drawings.

#### 45 LAYING WARM DECK ROOF INSULATION

- Setting out:
  - Long edges: Fully support and run at right angles to structure.
  - End edges: Fully support.
  - Joints: closely butted together.
  - End joints: Stagger.
- Bedding: Bonded to the upper surface of the Vapour barrier using suitable Bauder Polyurethane Insulation Adhesive. (Product selection assistance available from Bauder). The adhesive should be applied in strips following the direction of the board length. Giving continuous and equally spaced adhesive beads within each board width.
- Mechanical fixing: not required.
- Completion: Boards must be in good condition, well fitting and stable.

#### 50 LAYING REINFORCED BITUMEN MEMBRANES GENERALLY

- Bonding: Continuous.
  - Cold applied – Torch Free Zone
  - Self adhesive membranes required.
- Laps:
  - Direction: Install membranes so that water drains over and not into laps.
  - Side and end laps: Minimum 100 mm and fully sealed.
  - Head and side laps: Offset.
- Successive layers: Apply without delay. Do not trap moisture.
- Details: Weathertight. Form with adequate overlapping, staggering of laps and full bonding.

#### 70 SKIRTINGS AND UPSTANDS

- Angle fillets: BauderPIR angle Fillets (50 mm x 50 mm) must be used at all right angled upstands, provisionally bonded in suitable Bauder Polyurethane Insulation Adhesive and subsequently retained once the underlay detailing is applied.  
Important note - under no circumstances must fillets of an alternative material be incorporated (i.e. timber, cork, fibre, etc.) as this would invalidate the guarantee.
  - Other layers of membrane: Carry in staggered formation up upstand, with each layer fully bonded. Where practicable carry capsheet over top of upstand.
  - Upstands:
    - At ends of rolls: Carry bitumen membrane up without using separate strip.
    - Elsewhere: Use matching strips of bitumen membrane, maintaining laps.
- Self-adhered membranes - Mechanically fix the top leading edge of all upstand details at 300mm centres using appropriate fasteners, and suitable termination bar if required. Please refer to Bauder Bituminous Standard Detail Drawings.

#### 75 WELTED DRIPS

- Material: polymer modified membrane.
  - Length: Form using maximum length strips.
  - Height at external gutter (minimum): 75 mm.
- Welt tail: Nail to face of drip batten. Fold neatly.
- Welt: Bond together. Carry minimum 100 mm onto roof and overlap with top bitumen membrane.

#### 95 CHIPPINGS AND DRESSING COMPOUND

- Chippings: local granite.
  - Size (minimum): 10 mm nominal, graded as single sized aggregate for flat roofing.
- Dressing compound: To BS EN 12591.
- Outlets: Fit gravel guards.
- Application: Dressing compound at 1.5 kg/m<sup>2</sup>. Chippings at approximately 16 kg/m<sup>2</sup>.
- Completion: Remove loose chippings without exposing compound.

### J42 SINGLE LAYER POLYMERIC SHEET ROOF COVERINGS

#### 15 ROOFING GENERALLY

- Surfaces to be covered: Secure, clean, dry, smooth, free from frost, contaminants, voids and protrusions.

- Adverse weather: Do not lay membrane at temperatures below 5°C, in high winds, wet or damp conditions unless effective temporary cover is provided over working area.
- Unfinished areas of roof: Keep dry and protect edges of laid membrane from wind action.
- Completed coverings: Firmly attached, fully sealed, smooth, weatherproof and free draining.

#### 20 RENEWING EXISTING COVERINGS ON BOILER ROOM: FLAT ROOF F2

- Areas to be renewed: area following demolition of redundant chimney.
- Substrate: existing concrete roof.
- Penetration: form taper shank plug with in-situ concrete and formwork under, or replace affected concrete lintels.
- Timing: Remove only sufficient coverings as will be renewed and made weathertight on same day.

#### 60 PERIMETER DETAILS

- General: Secure membrane at roof edge conditions, changes of plane, curb flashings, upstands to roof lights, etc.: with mechanical fasteners.
- Upstands, edge trims, drips, kerbs, etc:
  - form lead flashings to rendered timber frame wall forming south gable
  - take up behind existing slate covered abutment wall to west edge.
- Reinforcing strip: required.
- Roof membrane: Terminate and secure in accordance with manufacturer's/ supplier's recommendations.

### K10 GYPSUM BOARD CEILINGS

#### 25 LINING ON TIMBER FRAMED CEILINGS IN STORE

- Substrate: timber flat roof joists
- Linings: 12.5 mm plasterboard.
- Fixing: screws at 230 mm centres.
- Finishing: skim coat plaster.
  - Primer/ Sealer: sealed.

### K20 TIMBER BOARD SARKING

#### 10 TIMBER BOARD SARKING TO CHARTER HALL - EXISTING

- Substrate: purlins 100 deep x 140 mm at 950 mm centres, spanning approx. 3 metres.
- Boards: Butt jointed laid diagonal.
  - Finished face width (exposed width after fixing): 140mm.
  - Finished thickness: 25mm.
- Fixing: in direction of fall as Clause 50 using 65 x 4mm stainless steel oval brad nails, 2 per board at each bearer.
- General: replace damaged boards to match above
- Treatment: Preservative impregnation to C8 standard.

#### 41 TREATED TIMBER

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

#### 50 FIXING BOARDS

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

**L10 ROOFLIGHTS**

- 45 ROOFLIGHTS
- Manufacturer: Brett Martin.
  - Product reference: Mardome.
  - Type: textured roof dome - fixed.
  - Size: 600 x 600 mm.
  - Frame: As supplied.
  - Kerb: 150 mm high as supplied.
  - Glazing details: polycarbonate – double layer
  - Fixing: As manufacturer's detail.

**L30 HANDRAILS**

- 70 PROPRIETARY HANDRAILS TO FLAT ROOF F1 – LIGHTWELL 1
- Manufacturer: Alvin Key Clamp or equal approved.
  - Product reference: Quick Handrail Kits – Size 7.
  - Component material and finish as delivered:
    - Handrails: steel tubes.
    - Brackets: End post–7, Mid Post–7.
  - Other requirements: gate providing access from ladder.
  - Fixing: fixing down bolts in line with the applied load (90 degrees to rail)
    - Centres: max 1100 mm.
- 80 INSTALLATION GENERALLY
- Fasteners and methods of fixing: To Section Z20.
  - Dissimilar materials: Isolate to avoid corrosion and/ or staining.
  - Structural members: Do not modify, cut, notch or make holes in structural members, except as indicated on drawings.
  - Temporary support: Do not use stairs, walkways or balustrades as temporary support or strutting for other work.
  - Applied features: (finishes, inserts, nosings, etc.); Substrates to be even, dry, sound and free from contaminants. Make good substrate surfaces and prepare/ prime as applied feature manufacturer's recommendations before application.

**M20 PLASTERED/ RENDERED COATING**

- 10 CEMENT:LIME:SAND TO STORE
- Substrate: Masonry including granite/ stone.
  - Preparation: remove existing defective render as Clause 78. contractor's choice.
  - Mortar: contractor's choice.
  - Sand: To BS EN 13139.
    - Grading: 0/2 or 0/4 (CP or MP); category 2 fines.
  - Lime: Nonhydraulic to BS EN 459-1, type CL 90S.
  - Undercoats:
    - Mix (cement:lime:sand): 1:1:6.
    - Thickness (excluding dubbing out and keys): 8 – 12 mm.
  - Final coat:
    - Mix (cement:lime:sand): 1:2:9.
    - Thickness: 5 – 15 mm.
  - Finish: scraped.
- 60 CEMENTS FOR MORTARS
- Cement: To BS EN 197-1.
    - Types:
      - Portland cement, CEM I.
      - Portland slag cement, CEM II.
      - Portland fly ash cement, CEM II.
    - Strength class: 32.5, 42.5 or 52.5.
  - Sulfate resisting cement: To BS EN 197-1.
  - Masonry cement: To BS EN 998-1 and Kitemarked.

- Class: MC 12.5 (with air entraining agent).
- 62 ADMIXTURES FOR CEMENT GAUGED MORTARS
- Air entraining (plasticizing) admixtures: To BS EN 934-2 and compatible with other mortar constituents.
  - Other admixtures: Submit proposals.
  - Prohibited admixtures: Calcium chloride and admixtures containing calcium chloride.
- 65 MIXING
- Render mortars (site-made):
    - Batching: By volume using gauge boxes or buckets.
    - Mix proportions: Based on damp sand. Adjust for dry sand.
  - Mixes: Of uniform consistence and free from lumps.
- 67 COLD WEATHER
- Internal work: Take precautions to prevent damage to internal coatings when air temperature is below 3°C.
  - External work: Avoid when air temperature is at or below 5°C and falling or below 3°C and rising.
- 71 SUITABILITY OF SUBSTRATES
- General: Suitable to receive coatings. Sound, free from contamination and loose areas.
- 78 REMOVING DEFECTIVE EXISTING RENDER
- Render for removal: Detached, hollow, soft, friable, badly cracked, affected by efflorescence or otherwise damaged.
  - Removing defective render: Cut out to regular rectangular areas with straight, square cut or slightly undercut edges.
    - Render with imitation joints: Cut back to joint lines.
  - Cracks (other than hairline cracks): Cut out to a width of 75 mm (minimum).
- 87 APPLICATION OF COATINGS
- General: Apply coatings firmly and achieve good adhesion.
  - Appearance of finished surfaces: Even and consistent. Free from rippling, hollows, ridges, cracks and crazing.
    - Accuracy: Finish to a true plane with walls and reveals plumb and square.
  - Drying out: Prevent excessively rapid or localized drying out.
  - Keying undercoats: Cross scratch plaster coatings and comb render coatings. Do not penetrate undercoat.

## **M21 INSULATION WITH RENDERED FINISH**

- 10 SURVEY OF STRUCTURAL SUBSTRATE
- Timing: Before starting work covered in this section.
  - Objective: To confirm suitability for application of external wall insulation system.
  - Survey report: Submit, covering:
    - A schedule of repairs and/ or additional works necessary to render the substrate suitable to receive the system.
    - A schedule of services, fixtures and fittings requiring removal to facilitate installation of the system.
- 20 EXTERNAL WALL INSULATION SYSTEM
- Manufacturer: Knauf.
    - System reference: Rocksilks EWI Slab - refurbishment.
  - Structural substrate: rendered masonry.
    - Preparation: make condition as Clause 50.
  - Insulation: 120 mm
    - Method of fixing: mechanical fasteners.
  - Fire barriers: not required – mineral wool described non-combustible.
  - Beads/ Trims: Provide and fix all necessary bell casts, stop beads, movement joint beads, etc. required to complete the installation.
  - Render carrier/ Reinforcement: system mesh
  - Render: silicone or mineral render system – contractor's choice
  - Decorative finish: cream paint to match existing colour.
- 30 GENERAL REQUIREMENTS



- Detailed design of system and associated features shown on drawings: Complete to meet requirements of this specification.
- Installation requirements:
  - Weathertight under all anticipated conditions.
  - Capable of resisting likely impact and wind loads.
- Installer: The system manufacturer or a contractor approved by the system manufacturer.
- Construction/ Movement joints: Formed as and where shown on drawings.
  - On site modifications to joint locations/ design: Agree revisions before proceeding.

#### 40 ADVERSE WEATHER

- Adhesives/ Mortars/ Renders: Do not apply when the air temperature is:
  - at or below 5°C on a falling thermometer or below 3°C on a rising thermometer.
  - outside range recommended by manufacturer, if different from above.
- Newly rendered surfaces: Protected against adverse weather.
- Render coatings damaged by adverse weather: Replace.

#### 50 SUBSTRATES

- Condition before application of insulation system: Structurally sound, dry, unpainted and free from contamination by dirt and dust, efflorescence, organic growths or other deleterious substances and in a suitable condition to receive specified insulation system.

#### 90 INSPECTION OF COMPLETED INSTALLATION

- Timing: As soon as possible after completion of the work and before removing scaffolding.
- Submit : Description of inspection and remedial works carried out.

### **M60 PAINTING/CLEAR FINISHING**

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

- Manufacturer: contractor's choice.
- Surfaces: internal walls and ceilings.
  - Preparation: as Clause 30 / 32
- Initial coats: sealers / primers as required.
  - Number of coats: to manufacturer's instructions.
- Undercoats: where required.
  - Number of coats: sufficient to support final colour.
- Finishing coats: to match existing.
  - Number of coats: 1 - 2.

#### 11 EMULSION PAINT TO EXTERNAL RENDERED SURFACES

- Manufacturer: Dulux.
  - Product reference: Weathershield .
- Surfaces: external walls.
  - Preparation: as manufacturer's instructions
- Initial coats: sealers / primers as required.
  - Number of coats: to manufacturer's instructions.
- Undercoats: required.
  - Number of coats: as system method.
- Finishing coats: cream colour.
  - Number of coats: 1 - 2.

#### 12 GLOSS PAINT TO EXTERNAL WOOD

- Manufacturer: contractor's choice.
- Surfaces: external.
  - Preparation: as Clause 30 / 32 / 37
- Initial coats: knotting / primers required to bare wood.
  - Number of coats: to manufacturer's instructions.
- Undercoats: required.
  - Number of coats: sufficient to support final colour.
- Finishing coats: to match existing colour scheme.
- Manufacturer: Farrow & Ball.

- Product reference: colours as Section Schedule of Works .
  - Number of coats: to achieve solid colour
- 20 COATING MATERIALS to be obtained from one only of the following manufacturers unless specified otherwise. Inform CA of selected manufacturer before commencement of any coating work.
- ICI Paint Division (Dulux)
  - Leyland Paints
  - Johnstones Paints
  - Farrow & Ball
- 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.
- 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.
- 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: 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: fascias.
    - Additional coatings: 2 x undercoats.
- 70 EXTERNAL DOORS
- Bottom edges: Prime and coat before hanging.
- N10 GENERAL FIXTURES/ FURNISHINGS/ EQUIPMENT**
- 40 MISCELLANEOUS FITTINGS
- Item: wall ladder support
  - Manufacturer: Fischer or equal approved.
    - Product reference: ref 537341.
  - Fixing: as manufacturer's instructions.
- 50 MISCELLANEOUS FITTINGS
- Item: flue collar
  - Manufacturer: Ideal or equal approved.
    - Product reference: universal weather collar.
  - Fixing: as manufacturer's instructions.
- P10 SUNDRY INSULATION/ PROOFING WORK**
- 05 EAVES ROOF VENTILATORS FOR ROOF SLOPES A, B ,C & D
- Manufacturer: Glidevale.
    - Product reference: FV100 Over Fascia Ventilator.
  - Eaves free air space (minimum): 10,000 mm<sup>2</sup>/m.
  - Accessories: Protect OFV Eaves Skirt
- 10 LOFT INSULATION
- Material: multifoil.

- Manufacturer: YBS Insulation.
  - Product reference: Superquilt.
  - Depth/ Thickness: 40 mm.
  - Installation: under existing polythene wrapped insulation rolls.
- 20 CEILING VOID ACCESS HATCH TO CHARTER HALL CEILING
- Manufacturer: The Access Panel Company. Tel 01724 853090
  - product ref.: Exposed Grid Ceiling Access Panels.
  - size: 1200 x 1200 mm.
  - colour: white RAL 9010 (standard).
  - aperture: 'T' grid ceiling.
  - lock: standard square drive operated lock.
  - Installation requirements:
    - Fit: No gaps and securely fixed.
    - Supply with dummy centre grid pieces to maintain overall grid scheme.
- 75 SMALL CAVITY BARRIERS UNDER THE GUTTER BETWEEN THE CHARTER HALL ROOF AND THE ROOF ADJACENT
- Material: Wire reinforced mineral wool minimum 50 mm.
  - Fire resistance rating: 1 hour.
  - Installation requirements:
    - Fasteners: Staples at maximum 150 mm centres. Fold cavity barrier if necessary to ensure a tight fit.
    - Joints and intersections: Butted, no gaps.
- R10 RAINWATER PIPEWORK/GUTTERS**
- 16 PVC-U GUTTERS
- Manufacturer: Wavin Osma.
  - Product reference: StormLine.
  - Profile: Ogee.
  - Colour: Black
  - Accessories: jointing, stopends, angles, outlets to square pipes.
  - Fixing: support brackets – 4 x screw fixing – at maximum 1000 mm spacing, within 150 mm of both sides of any angle, at the centre of joints using jointing support brackets. Ensure fixings spaced evenly.
- 35 PVC-U PIPEWORK
- Manufacturer: Wavin Osma.
  - Product reference: StormLine.
  - Sections: square.
  - Nominal sizes: 61 mm
  - Colour: Black.
  - Accessories: hopper, offset bends, shoes.
  - Fixing: black brackets with spacers as required, screwed to wall at max 1800 mm centres vertically, 1000 mm horizontally or where angled. Support directly below lower offset bends
- 50 INSTALLATION GENERALLY
- Discharge of rainwater: Complete, and without leakage or noise nuisance.
  - Components: Obtain from same manufacturer for each type of pipework and guttering.
  - Allowance for thermal and building movement: Provide and maintain clearance as fixing and jointing proceeds.
  - Fixings and fasteners: As section Z20.
- 60 GUTTERS LAID TO FALL
- Setting out: To true line and even gradient to prevent ponding or backfall. Position high points of gutters as close as practical to the roof and low points not more than 50 mm below the roof.
  - Joints: Watertight.
  - Roofing eaves carrier: Dressed into gutter.
- 70 PIPEWORK

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

## **Z12 PRESERVATIVE/ FIRE RETARDANT TREATMENT**

### 10 TREATMENT APPLICATION

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

### 20 COMMODITY SPECIFICATIONS

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

### 25 PRESERVATIVE TREATMENT SOLUTION STRENGTHS/ TREATMENT CYCLES

- General: Select to achieve specified service life and to suit treatability of specified wood species.

### 40 ORGANIC SOLVENT PRESERVATIVE TREATMENT

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

## **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.
- 30 READY-MIXED LIME:SAND FOR CEMENT GAUGED MASONRY MORTARS
- Standard: To BS EN 998-2.
  - Lime: Nonhydraulic to BS EN 459-1.
    - Type: CL 90S.
  - Pigments for coloured mortars: To BS EN 12878.
- 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.
    - 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 materials.