

Arundel, Bay and Square Libraries

30 August 2011

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C

Demolition/ Alteration/ Renovation

C10
Site survey

C10 Site survey

To be read with Preliminaries/ General conditions.

GENERAL

150 BENCH MARKS

- Unrecorded bench marks and other survey information: Give notice when found and notify Ordnance Survey.

160 UNFORESEEN HAZARDS

- Unrecorded hazards and hazardous materials: Give notice when found. Do not disturb.

180 WORKMANSHIP

- Operatives: Appropriately skilled and experienced for the type of work.
- Qualifications of operatives: Submit evidence prior to commencement.

190 PHOTOGRAPHS

- Digital photographs: Required.
 - Format: JPEG.
 - Effective pixels: 3 million.
 - Presentation: On CD.
 - Index and thumbnail images: Not required.
- Subjects: Significant features and surroundings.

SURVEY WORKS

240 SETTING OUT/ CONTROL SURVEY

- Examine all available information, carry out a survey and submit a report to include the following:
 - Area to be surveyed: St Peter's Church.
 - Features to be included: Turrets and Pinnacles.
 - Specific requirements as to method: Prior to starting work carry out dimensional survey of the existing structures to produce numbered elevational drawings to facilitate the re-building of these elements.
- Initially compile a schedule of condition which indicates the existing defects in the masonry and submit to the contract administrator.

340 PROTECTION

- Protect the following: Graves and head stones surrounding the building. Existing paths, boundary walls and roads etc, any damage to such features is to be made good by the contractor at their own expense.

C20
Demolition

C20 Demolition

To be read with Preliminaries/ General conditions

GENERAL REQUIREMENTS

140 BENCH MARKS

- Unrecorded bench marks and other survey information: Give notice when found. Do not remove marks or destroy the fabric on which they are found.

SERVICES AFFECTED BY DECONSTRUCTION/ DEMOLITION

210 SERVICES REGULATIONS

- Work carried out to or affecting new and/ or existing services: Carry out in accordance with the byelaws and/ or regulations of the relevant Statutory Authority.

220 LOCATION OF SERVICES

- Services affected by deconstruction/ demolition work: Locate and mark positions.
- Mains services marking: Arrange with the appropriate authorities for services to be located and marked.
 - Marking standard: In accordance with National Joint Utilities Group 'Guidelines on the positioning and colour coding of underground utilities' apparatus'.

230 SERVICES DISCONNECTION ARRANGED BY CONTRACTOR

- General: Arrange with the appropriate authorities for disconnection of services and removal of fittings and equipment owned by those authorities prior to starting deconstruction/ demolition.

250 LIVE FOUL AND SURFACE WATER DRAINS

- Drains and associated manholes, inspection chambers, gullies, vent pipes and fittings:
 - Protect; maintain normal flow during deconstruction/ ~~demolition~~ .
 - Make good any damage arising from deconstruction/ ~~demolition~~ work.
 - Leave clean and in working order at completion of deconstruction/ demolition work.
- Other requirements: None.

260 SERVICE BYPASS CONNECTIONS

- General: Provide as necessary to maintain continuity of services to occupied areas of the site on which the deconstruction/ demolition is taking place and to adjoining sites/ properties.
- Minimum notice to adjoining owners and all affected occupiers: 72 hours, if shutdown is necessary during changeover.

270 SERVICES TO BE RETAINED

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

DECONSTRUCTION/ DEMOLITION WORK**310 WORKMANSHIP**

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

320 GAS OR VAPOUR RISKS

- Precautions: Prevent fire and/ or explosion caused by gas and/ or vapour from tanks, pipes, etc.

330 DUST CONTROL

- General: Reduce airborne dust by periodically spraying deconstruction/ demolition works with an appropriate wetting agent. Keep public roadways and footpaths clear of mud and debris.
- Lead dust: Submit method statement for control, containment and clean-up regimes.

340 HEALTH HAZARDS

- Precautions: Protect site operatives and general public from hazards associated with vibration, dangerous fumes and dust arising during the course of the Works.

350 ADJOINING PROPERTY

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

360 STRUCTURES TO BE RETAINED

- Extent: As indicated on the drawings, photographs and schedules.
- Parts which are to be kept in place: Protect.
- Interface between retained structures and deconstruction/ demolition: Cut away and strip out with care to minimize making good.

370 PARTLY DEMOLISHED STRUCTURES

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

380 DANGEROUS OPENINGS

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

391 ASBESTOS-CONTAINING MATERIALS – UNKNOWN OCCURRENCES

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

410 UNFORESEEN HAZARDS

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

420 OPEN BASEMENTS, ETC

- Temporary support: Leave adequate buttress walls or provide temporary support to basement retaining walls up to ground level.
- Safety: Make remaining sections of retaining and buttress walls safe and secure.
- Water movement: Make holes in basement floors to allow water drainage or penetration (depending on water table). Provide a hole for every 10 m², not less than 600 mm in diameter.

450A SITE CONDITION AT COMPLETION

- Debris: Clear away and leave the site in a tidy condition.

MATERIALS ARISING**511A EMPLOYER'S PROPERTY**

- Components and materials to remain the property of the Employer.
- Protection: Maintain until these items are removed by the Employer or reused in the Works, or until the end of the Contract.

520 RECYCLED MATERIALS

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

C40

Cleaning masonry/ concrete

C40 Cleaning masonry/ concrete

To be read with Preliminaries/ General conditions.

GENERAL/ PREPARATION

160 PROTECTION

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

175 CONTROL AND DISPOSAL OF WASH WATER AND DETRITUS

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

190 CLEANING GENERALLY

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

215 RECORD OF CLEANING WORKS

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

C41

Repairing/ Renovating/ Conserving masonry

C41 Repairing/ Renovating/ Conserving masonry**To be read with Preliminaries/ General conditions****GENERALLY/ PREPARATION****110 SCOPE OF WORK**

- Schedule: As per the schedule of work, photographs and drawings etc.
- Records of masonry to be repaired: Before starting work, use measurements and photographs as appropriate to record bonding patterns, joint widths, special features, etc.
- Identification of masonry units to be removed, replaced or repaired: Mark clearly, but not indelibly, on face of masonry units or parts of units to be cut out and replaced. Transcribe markings to drawings/ photographs.

120 SITE INSPECTION

- Purpose: To confirm type and extent of repair/ renovation/ conservation work shown on drawings and described in survey reports and schedules of work.
- Parties involved: Contract administrator and Foreman mason.
- Timing: At least 5 working days before starting each section of work.
- Instructions issued during inspection: Confirm in writing, with drawings and schedules as required, before commencing work.

125 REMOVAL OF FITTINGS/ FIXTURES

- Items to be removed, and reinstated on completion of repair work: As indicated in the schedule, photographs and drawings etc.
 - Identification: Attach labels or otherwise mark items using durable, non-permanent means, to identify location and describe refixing instructions, where applicable.
 - Treatment following removal: As schedule.
 - Storage: Protect against damage, and store until required.
Storage location: On site.
 - Reinstatement: Refit in original locations using original installation methods.
- Items unsuitable or not required for reuse: Redundant signage lettering and associated fasteners and plugs.
 - Disposal: Obtain instructions.
- Masonry fabric and surfaces: Do not damage during removal and replacement of fittings/ fixtures.

130 REMOVAL OF PLANT GROWTHS FROM MASONRY

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

140 RECORD OF WORK

- General: Record work carried out to masonry clearly and accurately using written descriptions, sketches, drawings and photographs, as necessary.
- Specific records: Photogrammetric survey drawings marked up to show replacement stones and new cramps, areas of core grouting, repointing, resin repairs to cracked stones.
- Documentation: Submit on completion of the work.
 - Number of sets: Two.

WORKMANSHIP GENERALLY**150 POWER TOOLS**

- Usage for removal of mortar: Not permitted.

155 PUTLOG SCAFFOLDING

- Usage: Not permitted.

160 PROTECTION OF MASONRY UNITS AND MASONRY

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

165 STRUCTURAL STABILITY

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

170 DISTURBANCE TO RETAINED MASONRY

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

180 WORKMANSHIP

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

185 ADVERSE WEATHER

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

190 CONTROL SAMPLES

- General: Complete an area of each of the following types of work, and arrange for inspection before proceeding with the remainder: Repointing – for each different type of mix/ pointing profile/ finish prepare sample areas of approximately one square metre; first stage approval – after preparation; second stage approval – after repointing.

Repairs to stones – as clause 340.

Mortar repairs C41/520 – in approved locations..

MATERIAL/ PRODUCTION/ ACCESSORIES**215 MATERIAL SAMPLES**

- Representative samples of designated materials: Submit before placing orders.
 - Designated materials: Dressed stone C41/240.
 - Sands for bedding and pointing.
 - Sands for grouting.
 - Sands for mortar repairs.
- Retention of samples: Unless instructed otherwise, retain samples on site for reference. Protect from damage and contamination.

220 RECORDING PROFILES

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

230 INSPECTION OF DRAWINGS, TEMPLATES, CASTS, ETC

- Timing: Before starting production of masonry units associated with the following items: Plaster models for corbel brackets.
Drawings and templates for stone finials and cornice.
- Period of notice (minimum): One week.

240 STONE

- Supplier: Brown Bros (Longridge) Limited
Leeming Quarry
Stonyhurst
Clitheroe
BB7 9QY
Tel: 01254 826457.
- Type: Sandstone
- Quality: Free from vents, cracks, fissures, discolouration, or other defects that may adversely affect strength, durability or appearance. Thoroughly seasoned, dressed and worked in accordance with shop drawings prepared by the supplier.
- Finish: Tooled to match existing.

245 REPLACEMENT STONE UNITS

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

250 STONE ORIENTATION

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

255 ASHLAR BLOCKS/ DRESSINGS

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

281 FIXINGS FOR REPLACEMENT STONework

- Type: Submit proposals.
- Material: Austenitic stainless steel.
- Size, strength and number: As necessary to resist loads likely to occur during the life of the building, and to prevent lateral displacement or pulling apart of the construction.

285 BED JOINT REINFORCEMENT TO MASONRY GENERALLY

- Manufacturer: Submit proposals.
 - Product reference: Submit proposals.
- Material: Austenitic stainless steel.
- Width: Approximately 40-50 mm less in width than wall or leaf.
- Laying: On an even bed of mortar in a continuous strip with
- 225 mm laps at joints and full laps at angles. Keep back
- 20 mm from face of external work, 12 mm back from face of internal work and finish mortar joint to normal thickness.

DISMANTLING/ REBUILDING**310 DISMANTLING MASONRY FOR REUSE**

- Masonry units to be reused: Remove carefully and in one piece.
 - Treatment: Clean off old mortar, organic growths and dirt, and leave units in a suitable condition for rebuilding.
 - Identification: Mark each unit clearly and indelibly on a concealed face, indicating its original position in the construction. Transcribe markings to drawings/ photographs.

320 REBUILDING STONEMWORK

- Replacement materials: Stone as clause 240.
- Mortar: As section Z21
 - Mix: 1:3: lime:sand.
 - Sand source/ type: Well graded crushed stone to approval.
- Fixings: Cramps and dowels as clause 281.
- Rebuilding: To match previous face and joint lines, joint widths and bonding. Adequately bonded to retained work/ backing masonry, as appropriate.
- Joint surfaces: Dampen, as necessary, to control suction.
- Laying masonry units: On a full bed of mortar; perpend joints filled.
- Exposed faces: Remove mortar and grout splashes immediately.
- Joints: To match existing.
- Other requirements: Bed joint reinforcement as required.

REPLACEMENTS AND INSERTIONS**330 PREPARATION FOR REPLACEMENT MASONRY**

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

340 REPLACEMENT OF STONE AS INDICATED ON THE PHOTOGRAPHS AND SCHEDULE

- Stone: Sandstone as clause 240.
- Bedding depths: Provisionally 125 mm, seek approval and/or submit recommendations prior to starting work.
- Mortar: As section Z21.
 - Mix: 1:3 lime:sand.
 - Sand source/ type: Well graded crushed stone to approval.
- Fixings: Dowels and cramps as clause 281.
- Joints: Flush.
- Other requirements: Remove mouldings in one piece.

350 STONE INSERTS GENERALLY

- Stone: Sandstone as clause 240.
- Finish: Flush and to match existing.
- Preparation and insertion: As clause 395.
- Mortar: As section Z21.
 - Mix: 1:3 lime:sand.
 - Sand source/ type: Fine sand to approval.
- Fixings: Replacement cramps as clause 410.
- Joints: Very fine.
- Other requirements: None.

- 355 STONE INSERTS Generally
- Stone: Sandstone as clause 240.
 - Finish: Flush and to match existing.
 - Preparation and insertion: As clause 395.
 - Adhesive: Resin based to approval.
 - Fixings: Replacement cramps as clause 410.
 - Joints: Very fine with no adhesive visible.
 - Other requirements: None.
- 385 LAYING REPLACEMENT MASONRY UNITS
- Exposed faces of new material: Keep to agreed face lines.
 - Faces, angles and features: Align accurately. Set out carefully to ensure satisfactory junctions with existing masonry and maintain existing joint widths.
 - Joint surfaces: Dampen to control suction as necessary.
 - Laying units: On a full bed of mortar, all joints filled.
 - Exposed faces: Keep clear of mortar and grout.
- 390 GROUTING JOINTS
- Grout mix: Nonhydraulic lime with pozzolanic admixture; mix subject to site trials.
 - Joints that cannot be fully filled with bedding mortar: Grout thoroughly around replacement masonry units.
 - Grouting: Keep grout back from exposed face to allow for the depth of pointing, using an approved temporary sealing material. Prevent grout staining exposed face.
- 395 STONE INSERTS
- Pockets to receive inserts:
 - Cut out accurately. Undercut sides of pocket where necessary to provide space for bonding material.
 - Adjust depth so that insert stands proud of existing stone for finishing in situ.
 - Clean out thoroughly.
 - Inserts: Cut to the smallest rectangular shape necessary to replace the defective area and provide a firm seating. Install accurately and securely.
 - Exposed faces: Keep clear of bonding material.
 - Existing joint widths: Maintain. Do not bridge joints.
- 405 BONDED DOWELS FOR MULLION REPAIRS AND STONE INSERTS
- Dowels: Austenitic stainless steel.
 - Adhesive: Epoxy resin.
 - Holes for dowels: Suitably sized and accurately aligned in masonry background and in rear of replacement/ insert stone; clean and dry.
 - Other requirements: Do not use adhesive to bond stones at joints unless instructed.
- 410 CORRODED FIXINGS
- Removal: Cut out carefully, causing the least possible disturbance to surrounding masonry. Remove associated rust debris.
 - Replacement: Compatible fixings as clause 281.
- 420 TEMPORARY DISTANCE PIECES FOR JOINTS IN ASHLAR STONework
- Material: Lead or stainless steel.
 - Removal: When mortar/ grout is sufficiently strong to take loading without compression.

TOOLING/ DRESSING STONE IN SITU**455 DESCALING STONE**

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

458 REDRESSING STONE

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

MORTAR REPAIRS**510 PREPARATION FOR MORTAR REPAIRS**

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

515 REINFORCEMENT FOR MORTAR REPAIRS

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

520 MORTAR REPAIRS GENERALLY

- Undercoats: As section Z21.
 - Mix: As finishing coat, without stone dust.
 - Sand source/ type: Sand:stone dust mix; proportions determined by site trials.
 - Building up: In layers where necessary, each layer not exceeding 12 mm.
- Finishing coat: To match approved samples.
 - Mix: 1:7-8 masonry cement:sand.
 - Sand source/ type: Sand: stone dust mix; proportions determined by site trials.
 - Finished thickness: 7 mm.
 - Finish: Scraped back as clause 550 or floated as clause 555, to approval.
- Reinforcement: As required.

540 APPLYING MORTAR

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

550 SCRAPED FINISH TO MORTAR REPAIRS

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

555 FLOAT FINISH TO MORTAR REPAIRS

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

CRACK REPAIRS/ TIES/ REINFORCEMENT**610 MORTAR REPAIR OF CRACKS GENERALLY**

- Mortar: As section Z21.
 - Mix: 1:3 normal hydraulic lime:sand, to approval.
 - Sand source/ type: Crushed stone/sand to approval.
- Preparation: Clean out cracks to remove debris, dust and dirt. Dampen recesses, as necessary, to control suction.
- Applying mortar: Press well into cracks so that they are fully filled. Ensure that mortar does not encroach upon exposed faces. Finish mortar flush with masonry face.
- Other requirements: Grout deep voids as clause 720.

640 PINNING GENERALLY

- Dowels/ Pins:
 - Type: Austenitic stainless steel threaded rods.
 - Diameter: 6 mm.
 - Additional requirements: Allow provisionally for three dowels per stone.
- Resin: Low viscosity resin to approval.
- Holes: Drill carefully, sloping downwards into background. Remove drilling dust and debris and keep dry.
- Filling holes:
 - Check that dowel lengths are correct before filling with resin
 - Use sufficient resin so that when the dowel is inserted the resin is dispersed to achieve an effective repair.
- Exposed faces: Keep clean and free from resin stains. Use temporary plugging material and/ or isolating membranes as necessary.
- Clearances: Keep ends of ties and resin back from face of masonry.
- Making good after resin has cured: Either mortar as clause 690 or stone plugs as clause 692.

690 MAKING GOOD TO INJECTION AND INSERTION HOLES

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

692 MAKING GOOD TO TIE AND DOWEL INSERTION HOLES USING CORE DRILLED PLUGS

- Plugs: Cut plug from masonry face before drilling hole for each tie/ dowel. Where resulting plug is unusable, prepare plug from matching material.
 - Plug diameter: Smallest practicable.
- Holes: Clean.
- Method of securing plug: A spot of epoxy resin and nonhydraulic lime:sand mortar.
- Joints: Fine and flush.
- Finished appearance: Obtain approval for first three holes before completing remainder.

POINTING/ REPOINTING**810 PREPARATION FOR REPOINTING**

- Existing mortar: Working from top of wall downwards, remove mortar carefully, without damaging adjacent masonry or widening joints, to a minimum depth of 30 mm.
 - Loose or friable mortar: Seek instructions when mortar beyond specified recess depth is loose or friable and/ or if cavities are found.
- Raked joints: Remove dust and debris.

820 POINTING STONESTONEWORK GENERALLY

- Preparation of joints: Carefully brush away loose mortar and Dampen joints, as necessary, to control suction.
- Mortar: As section Z21.
 - Mix: 1:3 hydraulic lime:sand.
 - Sand source/ type: Crushed stone fine pointing sand to approval.
- Joints profile/ finish: To Match existing.
- Other requirements: Grout deep voids as clause 720.

840 POINTING WITH TOOLS/ IRONS

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

860 BRUSHED FINISH TO JOINTS

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

H Cladding/Covering

H62
Natural slating

H62 Natural slating

To be read with Preliminaries/ General conditions.

TYPES OF SLATING

105 ROOF SLATING TO MAIN AND AISLE ROOFS

- Substrate: Existing rafters.
- Pitch: Existing.
- Underlay: Submit proposals.
 - Recycled content: 75% (minimum) to BS EN ISO 14021.
 - Direction: Parallel to eaves.
 - Head-lap (minimum): 100 mm.
- Battens:
 - Size: 50 x 25 mm.
 - Fixing: 65 x 3.35 mm galvanized annular ring shank nails.
- Slates:
 - Supplier: Burlington Slate Ltd.
 - Web: www.burlingtonstone.co.uk.
 - Tel: +44 (0)1229 889661.
 - Product reference: Roofing slates.
 - Type: Blue Grey.
 - Size: To match existing.
 - Head-lap (minimum): To suit pitch as recommended by the slate supplier.
 - Fixing: Two nails each slate.
- Other requirements: None.

SLATING GENERALLY

210 BASIC WORKMANSHIP

- General: Fix slating and accessories to make the whole sound and weathertight at earliest opportunity.
- Setting out: To true lines and regular appearance, with neat fit at edges, junctions and features.
- Fixings for slating accessories: As recommended by manufacturer.
- Gutters and pipes: Keep free of debris. Clean out at completion.

220 REMOVING EXISTING SLATING

- General: Carefully remove slates, battens, underlay, etc. with minimum disturbance of adjacent retained slating.
- Undamaged slates: Set aside for reuse.

240 UNDERLAY

- Handling: Do not tear or puncture.
- Laying: Maintain consistent tautness.
- Vertical laps (minimum): 100 mm wide, coinciding with supports and securely fixed.
- Fixing: Galvanized steel, copper or aluminium 20 x 3 mm extra large clout head nails.
- Eaves: Where exposed, underlay must be BS 8747, Annex B, type 5U, or equivalent UV durable type.
- Penetrations: Use proprietary underlay seals or cut underlay to give a watertight fit around pipes and components.
- Ventilation paths: Do not obstruct.

245 BATTENS/ COUNTERBATTENS - TREATED

- Timber: Sawn softwood.
 - Standard: To BS 5534, clause 4.12.1.
 - Permissible characteristics and defects: Not to exceed limits in BS 5534, annex C.
 - Moisture content at time of fixing and covering (maximum): 22%.
- Preservative treatment: As section Z12 and Wood Protection Association Commodity Specification C8.
 - Type: Organic solvent.

265 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: Square cut. 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.
- Fixing: Each batten to each support. Splay fix at joints in length.

275 SLATE FIXING

- Setting out: 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 or aluminium clout to BS 1202-3.
 - Nail dimensions: Determine in accordance with BS 5534 to suit site exposure, withdrawal resistance and slate supplier's recommendations.

290 MORTAR BEDDING/ POINTING

- Mortar: As section Z21, 1:3 cement:sand, with plasticizing admixtures permitted.
 - Bond strength providing resistance to uplift: To BS 5534.
- Weather: Do not use in wet or frosty conditions or when imminent.
- Preparation of concrete and clay tile accessories to be bedded: Wet and drain surface water before fixing.
- Appearance: Finish neatly as work proceeds and remove residue.

ROOF SLATING EDGES/ JUNCTIONS/ FEATURES**305 GENERALLY**

- Fittings and accessories: As recommended by slate supplier, do not improvise.
 - Exposed fittings and accessories: To match slate colour and finish.
- Cut slates: Cut only where necessary, to give straight, clean edges.
- Flashings: Fix with or immediately after slating. Form neatly.

325 FIRE SEPARATING WALLS

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

365 UNVENTILATED EAVES

- Underlay support: Submit proposals.
 - Continuous to prevent water retaining troughs.
- Gutter: Dress underlay or underlay support tray to form drip into gutter.
- Undercourse and first course slates: Fix with tails projecting 50 mm over gutter or to centre of gutter, whichever dimension is the lesser.

660 SIDE ABUTMENTS

- Underlay: Turn up not less than 100 mm at abutments.
- Abutment slates: Cut as necessary. Fix close to abutments.
- Soakers: Interleave with abutment slates. Fix by turning down over head of abutment slates.

670 TOP EDGE ABUTMENTS

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

840 VENTILATOR SLATES

- Ventilator slates:
 - Manufacturer: Burlington Slate Ltd.
 - Web: www.burlingtonstone.co.uk.
 - Tel: +44 (0)1229 889661 .
 - Product reference: Natural slate vent.
 - Requirement: To ventilate above insulation, in each rafter space.
 - Positions: TBC.

H71

Lead sheet coverings/ flashings

H71 Lead sheet coverings/ flashings

To be read with Preliminaries/ General conditions.

TYPES OF LEADWORK

200 GUTTER LINING

- Substrate: Existing.
 - Preparation: Give notice of any rotton or damaged timber.
- Underlay: Submit proposals.
- Type of lead: Rolled.
 - Thickness: Code 7.
- Pretreatment: Apply thin coating of patination oil to underside of lead and allow to dry before laying.
- Joints in direction of fall: None.
 - Spacing: N/A.
- Cross joints: Submit proposals.
 - Spacing: 860 mm.
- Outlets: Chute outlet through wall to hopper head.

230 VALLEY GUTTER LINING TO SLATE/ TILE ROOFS

- Underlay: Submit proposals.
- Type of lead: Rolled.
 - Thickness: 2.00 or 2.24 mm (Code 5).
- Pretreatment: Apply thin coating of patination oil to underside of lead and allow to dry before laying.
- Laying: Over and beyond tilting fillets.
- Lengths: Not more than 1500 mm.
 - Cross joints: Lapped not less than 175 mm.
- Fixing: Welt edges. Nail top edge of each sheet. Dress bottom end neatly into eaves gutter.

315 RIDGE/ HIP ROLLS TO SLATE ROOFS

- Clips: At capping laps and not more than 600 mm.
 - Fixing: Nail to top of ridge/ hip board before fixing core. Nail each side not more than 50 mm from edge of capping (drill slates as necessary).
- Core: Rounded timber.
 - Size: To match existing.
 - Shape: Tapered to a flat base 30 mm wide.
 - Fixing: To ridge/ hip board with brass or stainless steel screws at not more than 600 mm centres, with base not less than 5 mm above slates.
- Lead capping:
 - Thickness: 2.50 or 2.65 mm (Code 6).
 - Lengths: Not more than 2000 mm.
 - Hip capping: Nail head of each length around core.
 - Laps: Not less than 150 mm for ridges, 100 mm for hips.
 - Cover: Wings of capping to extend not less than 150 mm on to roof.

410 APRON FLASHINGS TO AISLE ROOFS

- Lead:
 - Thickness: 1.75 or 1.80 mm (Code 4).
- Dimensions:
 - Lengths: Not more than 1500 mm.
 - End to end joints: Laps of not less than 100 mm.
 - Upstand: Not less than 75 mm.
 - Cover to abutment: Not less than 150 mm.
- Fixing: Lead wedges into bed joint, clips to bottom edge at laps and 500 mm centres.

450 STEP AND COVER FLASHINGS AT MAIN AND AISLE ROOFS TO SIDE ABUTMENT

- Lead:
 - Thickness: 1.75 or 1.80 mm (Code 4).
- Dimensions:
 - Lengths: Not more than 1500 mm.
 - End to end joints: Laps of not less than 100 mm.
 - Upstand: Not less than 85 mm.
 - Cover to roof: Not less than 150 mm.
- Fixing: Lead wedges at every course and clips at not more than 500 mm centres along free edge.

GENERAL REQUIREMENTS/ PREPARATORY WORK**510 WORKMANSHIP GENERALLY**

- Standard: To BS 6915 and latest edition of 'Rolled lead sheet. The complete manual' published by the Lead Sheet Association.
- Fabrication and fixing: To provide a secure, free draining and completely weathertight installation.
- Operatives: Trained in the application of lead coverings/ flashings. Submit records of experience on request.
- Preforming: Measure, mark, cut and form lead prior to assembly wherever possible.
- Marking out: With pencil, chalk or crayon. Do not use scribes or other sharp instruments without approval.
- Bossing and forming: Straight and regular bends, leaving sheets free from ripples, kinks, buckling and cracks.
- Solder: Use only where specified.
- Sharp metal edges: Fold under or remove as work proceeds.
- Finished work: Fully supported, adequately fixed to resist wind uplift but also able to accommodate thermal movement without distortion or stress.
 - Protection: Prevent staining, discolouration and damage by subsequent works.

516 LEADWELDING

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

520 LEAD SHEET

- Production method:
 - Rolled, to BS EN 12588, or
 - Machine cast, Agrément certified and to code thicknesses with a tolerance (by weight) of $\pm 5\%$, or
 - Sand cast, from lead free from bitumen, solder, other impurities, inclusions, laminations, cracks, air, pinholes and blowholes; to code thicknesses but with a tolerance (by weight) of $\pm 10\%$.
- Identification: Labelled to show thickness/ code, weight and type.

610 SUITABILITY OF SUBSTRATES

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

620 PREPARATION OF EXISTING TIMBER SUBSTRATES

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

640 TIMBER FOR USE WITH LEADWORK

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

650 LAYING 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 but do turn up at abutments.
- Wood core rolls: Fixed over underlay.
- Protection: Keep dry and cover with lead at the earliest opportunity.

FIXING LEAD**705 HEAD FIXING LEAD SHEET**

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

710 FIXINGS

- Nails to timber substrates: Copper clout nails to BS 1202-2, or stainless steel (austenitic) clout nails to BS 1202-1.
 - Shank type: Annular ringed, helical threaded or serrated.
 - Shank diameter: Not less than 2.65 mm for light duty or 3.35 mm for heavy duty.
 - Length: Not less than 20 mm or equal to substrate thickness.
- Screws to concrete or masonry substrates: Brass or stainless steel to BS 1210, tables 3 or 4.
 - Diameter: Not less than 3.35 mm.
 - Length: Not less than 19 mm.
 - Washers and plastic plugs: Compatible with screws and lead.
- Screws to composite metal decks: Self tapping as recommended by the deck and lead manufacturer/ supplier for clips.

715 CLIPS

- Manufacturer: Submit proposals.
- Material:
 - Lead clips: Cut from sheets of same thickness/ code as sheet being secured.
 - Copper clips:
 - Thickness: 0.70 mm.
 - Temper: BS EN 1172, designation R220 in welts, seams and rolls, R240 elsewhere; dipped in solder if exposed to view.
 - Stainless steel clips:
 - Thickness: 0.46 mm.
 - Grade: BS EN 10088, 1.4301(304)terne coated if exposed to view.
- Dimensions:
 - Width: 50 mm where not continuous.
 - Length: To suit detail.
- Fixing clips: Secure each to substrate with either two screw or three nail fixings not more than 50 mm from edge of lead sheet. Use additional fixings where lead downstands exceed 75 mm.
- Fixing lead sheet: Welt clips around edges and turn over 25 mm.

770 WEDGE FIXING INTO JOINTS/ CHASES

- 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.
- Sealant: Submit proposals.
 - Application: As section Z22.

JOINTING LEAD**810 FORMING DETAILS**

- Method: Bossing or leadwelding except where bossing is specifically required.
- Leadwelded seams: Neatly and consistently formed.
 - Seams: Do not undercut or reduce sheet thickness.
 - Filler strips: Of the same composition as the sheets being joined.
 - Butt joints: Formed to a thickness one third more than the sheets being joined.
 - Lap joints: Formed with 25 mm laps and two loadings to the edge of the overlap.
- Bossing: Carried out without thinning, cutting or otherwise splitting the lead sheet.
 - Details where bossing must be used: Not applicable.

830 STANDING SEAM JOINTS

- Joint allowance: 100 mm overlap, 75 mm underlap and copper or stainless steel clips at not more than 750 mm centres.
- Forming joint: Welt overlap and clips around underlap, loosely turn over to form a standing seam of consistent cross section.

840 WOOD CORED ROLL JOINTS WITHOUT SPLASH LAP

- Wood core:
 - Size: 45 x 45 mm round tapering to a flat base 25 mm wide.
 - Fixing to substrate: Brass or stainless steel countersunk screws at not more than 300 mm centres.
- Undercloak: Dress half way around core.
- Copper or stainless steel clips: Fix to core at not more than 450 mm centres. Do not restrict thermal movement of the undercloak.
- Overcloak: Dress around core with edge welted around ends of clips, finishing 5 mm clear of main surface.

845 WOOD CORED ROLL JOINTS WITH SPLASH LAP

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

847 HOLLOW ROLL JOINTS

- Joint allowance: 125 mm overcloak and 100 mm undercloak.
- Copper or stainless steel clips: Fix to substrate at not more than 450 mm centres.
- Overcloak: Welt with clips around undercloak to form a roll of consistent cross section.

860 DRIPS WITH SPLASH LAPS

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

862 DRIPS WITH SPLASH LAPS

- Underlap: Dress up full height of drip upstand.
 - Fixing: Two rows of nails to lower level substrate, 25 mm and 50 mm from face of drip. At 75 mm centres in each row, evenly spaced and staggered. Seal over nails with a soldered or leadwelded dot.
- Overlap: Dress over drip and form a 75 mm splash lap.
 - Fixing: Lead clips, leadwelded to underlap, with not less than one per bay.

865 DRIPS WITHOUT SPLASH LAPS

- Underlap: Dress into rebate along top edge of drip.
 - Fixing: One row of nails at 50 mm centres on centre line of rebate.
- Overlap: Dress over drip to just short of lower level.

880 WELTED JOINTS

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

970 PATINATION OIL

- Manufacturer: Submit proposals.
 - Product reference: Submit proposals.
- Location: All new lead work.
- Application: As soon as practical, apply a smear coating to lead, evenly in one direction and in dry conditions.

L

Windows/Doors/Stairs

L10

Windows/ Rooflights/ Screens/ Louvres

L10 Windows/ Rooflights/ Screens/ Louvres

20A STEEL WINDOWS

- Manufacturer: Crittall Windows Ltd.
 - Web: www.crittall-windows.co.uk.
 - Email: hq@crittall-windows.co.uk.
 - Product reference: Berkeley
- Configuration: Fixed light and Top Hung.
- Dimensions: To match existing window openings.
- Finish as delivered: Interpon D36 polyester powder coating – colour white.
 - Texture: Satin.
- Glazing: Double glazed 10 mm thick.
- Ironmongery: Standard open out.
- Accessories: None.

80 IRONMONGERY

- Fixing: Assemble and fix carefully and accurately using fasteners with matching finish supplied by ironmongery manufacturer. Do not damage ironmongery and adjacent surfaces.
- Checking/ adjusting/ lubricating: Carry out at completion and ensure correct functioning.

90 REPLACEMENT WINDOW INSTALLATION

- Standard: To BS 8213-4.

M

Surface finishes

M20

Plastered/ Rendered/ Roughcast coatings

M20 Plastered/ Rendered/ Roughcast coatings

To be read with Preliminaries/ General conditions.

TYPES OF COATING**330 PROPRIETARY LIME:SAND PLASTER FOR INTERNAL USE**

- Substrate: Existing stonework.
 - Preparation: Brush clean.
- Manufacturer: Submit proposals.
- Undercoats:
 - Product reference/ Type: Submit proposals.
 - Fibre reinforcement: Hair.
 - Thickness (excluding dubbing out and keys): As existing.
- Final coat: INTERNAL.
 - Product reference: Submit proposals.
 - Thickness: As existing.
 - Finish: To match existing.
- Accessories: N/A.
- Other requirements: Form rounded external angles, without metal beads.

MATERIALS AND MAKING OF MORTAR**440 SAND FOR CEMENT GAUGED MORTARS**

- Standard: To BS EN 13139.
 - Grading: 0/2 or 0/4 (CP or MP); category 2 fines.
- Colour and texture: Consistent. Obtain from one source.

478 HYDRAULIC LIME

- Standard: To BS EN 459-1.
 - Type: Natural hydraulic lime (NHL).

481 READY PREPARED LIME PUTTY

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

492 HAIR REINFORCEMENT

- Manufacturer/ Supplier: Submit proposals.
 - Product reference: Submit proposals.
- Proportions (approximate): 5 kg hair to 1 m³ of coarse stuff.
- Condition: Clean, free from grease and other impurities. Well teased before adding to the mix.
- Distribution: Evenly throughout with no balling into lumps.
- Storage period for haired mortar (maximum): Four weeks.

495 MIXING

- Render mortars (site-made):
 - Batching: By volume. Use clean and accurate gauge boxes or buckets.
 - Mix proportions: Based on damp sand. Adjust for dry sand.
 - Lime:sand: Mix thoroughly. Allow to stand, without drying out, for at least 16 hours before using.
- Mixes: Of uniform consistence and free from lumps. Do not retemper or reconstitute mixes.
- Contamination: Prevent intermixing with other materials.

497 COLD WEATHER

- General: Do not use frozen materials or apply coatings on frozen or frost bound substrates.
- External work: Avoid when air temperature is at or below 5°C and falling or below 3°C and rising. Maintain temperature of work above freezing until coatings have fully hardened.
- Internal work: Take precautions to enable internal coating work to proceed without damage when air temperature is below 3°C.

PREPARING SUBSTRATES

510 SUITABILITY OF SUBSTRATES

- Soundness: Free from loose areas and significant cracks and gaps.
- Cutting, chasing, making good, fixing of conduits and services outlets and the like: Completed.
- Tolerances: Permitting specified flatness/ regularity of finished coatings.
- Cleanliness: Free from dirt, dust, efflorescence and mould, and other contaminants incompatible with coatings.

556 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 edges.
 - Horizontal and vertical edges: Square cut or slightly undercut.
 - Bottom edges to external render: Do not undercut.
 - Render with imitation joints: Cut back to joint lines.
- Cracks:
 - Fine hairline cracking/ crazing: Leave.
 - Other cracks: Obtain instructions.
- Dust and loose material: Remove from exposed substrates and edges.

568 EXISTING DAMP AFFECTED PLASTER/ RENDER

- Plaster affected by rising damp: Remove to a height of 300 mm above highest point reached by damp or 1 m above dpc, whichever is higher.
- Perished and salt contaminated masonry:
 - Mortar joints: Rake out.
 - Masonry units: Submit proposals.
- Faults in substrate (structural deficiencies, additional sources of damp, etc.): Submit proposals.
- Drying out substrate: Established drying conditions. Leave walls to dry for as long as possible before plastering.
- Dust and loose material: Remove from exposed substrate and edges.

MOULDINGS/ DECORATIVE PLASTERWORK**680 FIBROUS PLASTER MOULDINGS DECORATIVE PLASTER CORBELS TO ROOF TRUSS ENDS**

- Type: Reproduction of existing.
- Noggings, bearers, etc. to support mouldings: Accurately position and securely fix.
- Installation: True to line and level.
 - Fixing: Existing.
 - Framing, fixing points and joints: Reinforce.
- Finishing: Smooth, to correct profile and with flush joints.

INTERNAL PLASTERING**710 APPLICATION GENERALLY**

- Application of coatings: Firmly and in one continuous operation between angles and joints. Achieve good adhesion.
- Appearance of finished surfaces: Even and consistent. Free from rippling, hollows, ridges, cracks and crazing.
 - Accuracy: Finish to a true plane, to correct line and level, with angles and corners to a right angle unless specified otherwise, and with walls and reveals plumb and square.
- Drying out: Prevent excessively rapid or localised drying out.

715 FLATNESS/ SURFACE REGULARITY

- Sudden irregularities: Not permitted.
- Deviation of plaster surface: Measure from underside of a straight edge placed anywhere on surface.
 - Permissible deviation (maximum) for plaster not less than 13 mm thick: 3 mm in any consecutive length of 1800 mm.

720 DUBBING OUT

- General: Correct substrate inaccuracies.
- New smooth, dense concrete and similar surfaces: Dubbing out prohibited unless total plaster thickness is within range recommended by plaster manufacturer.
- Thickness of any one coat (maximum): 10 mm.
- Mix: As undercoat.
- Application: Achieve firm bond. Allow each coat to set sufficiently before the next is applied. Cross scratch surface of each coat.

725 UNDERCOATS GENERALLY

- General: Rule to an even surface. Cross scratch to provide a key for the next coat.
- Undercoats on metal lathing: Work well into interstices to obtain maximum key.
- Undercoats gauged with Portland cement: Do not apply next coat until drying shrinkage is substantially complete.

880 CURING AND DRYING

- General: Prevent premature setting and uneven drying of each coat.
- Curing coatings: Keep each coat damp by covering with polyethylene sheet and/ or spraying with water.
 - Curing period (minimum): As hydraulic lime manufacturer's recommendations.
 - Final coat: Hang sheeting clear of the final coat.
- Drying: Allow each coat to dry thoroughly, with drying shrinkage substantially complete before applying next coat.
- Protection: Protect from frost and rain.

885 CURING AND DRYING OF NONHYDRAULIC LIME RENDER

- General: Prevent premature setting and uneven drying of each coat.
- Curing coatings: Keep each coat damp by covering with sheeting hung clear of coating. Spray with water until sufficiently firm.
 - Sheeting: Damp hessian and polyethylene sheeting.
- Shrinkage: Thoroughly consolidate/ scour each coat one or more times as necessary to control shrinkage.

M40

Stone/ concrete/ quarry/ ceramic tiling/ mosaic

M40 Stone/ concrete/ quarry/ ceramic tiling/ mosaic

To be read with Preliminaries/ General conditions.

TYPES OF TILING/ MOSAIC**110 TILING TO ACCESSIBLE WC**

- Tiles: Ceramic glazed wall tiles.
 - Manufacturer/ Supplier: Contractor's choice.
 - Product reference: Submit proposals.
 - Colour: TBC.
 - Finish: Glazed .
 - Size: TBC .
 - Thickness: TBC .
 - Slip potential:
 - Slip resistance value (SRV) (minimum)/ Pendulum test value (PTV) (minimum) to BS 7932: Not applicable .
 - Surface roughness (Rz) (minimum) BS 1134: Not applicable .
 - Recycled content: Not applicable .
- Background/ Base: New and existing plaster .
 - Preparation: SBR bonding agent .
- Intermediate substrate: Not required .
- Bedding: Thin bed adhesive - ribbed, as clause 650 .
 - Reinforcement: Not applicable .
 - Adhesive: Contractor's choice .
- Joint width: 5mm .
- Grout: Contractor's choice .
 - Type/ classification: Not applicable .
- Movement joints: As clause 815 at internal corners of rooms .
- Accessories: None .

GENERAL**210 SUITABILITY OF BACKGROUNDS/ BASES**

- Background/ base tolerances: To permit specified flatness/ regularity of finished surfaces given the permissible minimum and maximum thickness of bedding.
- New background drying times (minimum):
 - Concrete walls: 6 weeks.
 - Brick/ block walls: 6 weeks.
 - Rendering: 2 weeks.
 - Gypsum plaster: 4 weeks.
- New base drying times (minimum):
 - Concrete slabs: 6 weeks.
 - Cement:sand screeds: 3 weeks.

250 SAMPLES

- General: Submit representative samples of the following: Each type of tile.

252 NATURAL STONE SAMPLES

- General: Submit samples in accordance with BS EN 12057, clause 4.2.3.2.

PREPARATION**310 EXISTING BACKGROUNDS/BASES GENERALLY**

- Efflorescence, laitance, dirt and other loose material: Remove.
- Deposits of oil, grease and other materials incompatible with the bedding: Remove.
- Tile, paint and other nonporous surfaces: Clean.
- Wet backgrounds: Dry before tiling.

330 EXISTING PLASTER

- Defective areas: Remove plaster that is loose, soft, friable, badly cracked or affected by efflorescence. Cut back to straight horizontal and vertical edges.
- Making good: Use plaster or nonshrinking filler.

360 EXISTING PAINT

- Paint with unsatisfactory adhesion: Remove so as not to impair bedding adhesion.

380 NEW PLASTER

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

390 PLASTERBOARD BACKGROUNDS

- Boards: Dry, securely fixed and rigid with no protruding fixings and face to receive decorative finish exposed.

FIXING**510 FIXING GENERALLY**

- Colour/shade: Unintended variations within tiles for use in each area/room are not permitted.
 - Variegated tiles: Mix thoroughly.
- Adhesive: Compatible with background/base. Prime if recommended by adhesive manufacturer.
- Cut tiles: Neat and accurate.
- Fixing: Provide adhesion over entire background/base and tile backs.
- Final appearance: Before bedding material sets, make adjustments necessary to give true, regular appearance to tiles and joints when viewed under final lighting conditions.
- Surplus bedding material: Clean from joints and face of tiles without disturbing tiles.

530A SETTING OUT

- Joints: True to line, continuous and without steps.
 - Joints on walls: Horizontal, vertical and aligned round corners.
 - Joints in floors: Parallel to the main axis of the space or specified features.
- Cut tiles: Minimise number, maximise size and locate unobtrusively.
- Joints in adjoining floors and walls: Align.
- Joints in adjoining floors and skirtings: Align.
- Movement joints: Where locations are not indicated, submit proposals.

550 FLATNESS/ REGULARITY OF TILING

- Sudden irregularities: Not permitted.
- Deviation of surface: Measure from underside of a 2 m straightedge placed anywhere on surface. The straightedge should not be obstructed by the tiles and no gap should be greater than 3 mm.

560 LEVEL OF TILING ACROSS JOINTS

- Deviation (maximum) between tile surfaces either side of any type of joint:
 - 1 mm for joints less than 6 mm wide.
 - 2 mm for joints 6 mm or greater in width.

650 THIN BED ADHESIVE - RIBBED (WALLS)

- Application: Apply 3 mm floated coat of adhesive to dry background in areas of approximately 1 m². Trowel to ribbed profile.
- Tiling: Press tiles firmly onto float coat.

MOVEMENT JOINTS/ GROUTING/ COMPLETION**815 SEALANT MOVEMENT JOINTS FOR WALL TILING**

- Joints: Extend through tiles and bedding to base/ background. Centre over joints in base/ background.
 - Width: 6mm .
- Sealant: Silicone .
 - Colour: To match tiling .
 - Preparation and application: As section Z22.

875 GROUTING

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

885 COLOURED GROUT

- Staining of tiles: Not permitted.
- Evaluating risk of staining: Apply grout to a few tiles in a small trial area. If discoloration occurs apply a protective sealer to tiles and repeat trial.

M51

Edge fixed carpeting

M51 Edge fixed carpeting

To be read with Preliminaries/ General conditions

GENERAL/ PREPARATION

210 WORKMANSHIP GENERALLY

- Finished carpeting: Tightly seamed, accurately fitted, neatly and securely fixed, smooth and evenly tensioned.

250 CARPET LAYOUT - PRE-ORDER REQUIREMENTS

- Setting out: Agree seam locations and pattern.

290 CONDITIONING CARPET

- Requirements: As recommended by manufacturer.

310 CONDITION OF WORKS PRIOR TO LAYING

- General requirements:
 - Building weathertight and well dried out.
 - Wet trades complete.
 - Paintwork complete and dry.
 - Floor service outlets, duct covers and other fixtures around which carpet is to be cut, fixed.

315 NOTIFICATION OF COMMENCEMENT

- Give notice: Before laying is due to start.
 - Period of notice (minimum): 48 hours.

320 ENVIRONMENT

- Temperature and humidity: Before, during and after laying, maintain approximately at levels which will prevail after building is occupied.

330 SUITABILITY OF BASES

- General: Commencement of laying carpeting will be taken as acceptance of suitability of bases.

350 TIMBER BOARDING/ STRIP FLOORING

- Substrate: Boards securely fixed and acceptably level with no protruding fasteners. Plane, sand or apply smoothing underlayment compound as necessary to give smooth, even surface.

371 PLYWOOD UNDERLAY

- Standard: Manufactured to an approved national standard.
- Bonding quality: To BS EN 314-2 class 3
- Appearance: To BS EN 635 class IV.
- Finish: Sanded.
- Thickness: 4 mm.
- Sheet size: 2400 x 1200
- Substrate: Existing floor boards securely fixed and acceptably level with no gross irregularities or protruding fasteners.
- Laying sheets:
 - Cross joints: Staggered with none coincident with joints in base.
 - Joint width: 0.5-1 mm.
- Fasteners: 25 mm ring shank or twisted shank nails or divergent staples.
 - Location: Commencing at the centre of one side of each sheet, at 150 mm grid centres over the area of each sheet and at 100 mm centres along perimeter, set in 12 mm from edge.
 - Placement: Driven with heads set flush with surface and not projecting through the underside of base. Not deformed.

LAYING CARPETING**470 LAYING CARPET GENERALLY**

- Appearance of laid carpet: Pieces of the same carpet type capable of being seen together to be of consistent appearance with pile lying in the same direction.
- Carpet perimeter: Accurately and closely fitted leaving no gaps. Edges turned down and secured to grippers.
- Carpet tension: Even, and such that carpet lies flat and will not ruck, ripple or become slack.
- Doorways and recesses: Cut carpet in. Do not piece in without prior approval.

480 POWER STRETCHING

- General: Power stretch carpets greater than 5 metres in any dimension.

490 DOORWAYS

- Carpet joint: On centre line of door leaf.

510 EDGINGS AND COVER STRIPS

- Manufacturer: Submit proposals.
 - Product reference: Submit proposals.
- Material/ finish: Submit proposals.
- Fixing: Secure with edge of carpet firmly gripped. Use matching fasteners where exposed to view.

530 LAYING STAIR CARPET WITH GRIPPER

- Shifting allowance: Provide a minimum additional length of carpet equivalent to one tread and riser. Conceal by substituting for underlay at top or bottom of stairs.
- Gripper locations:
 - One on each tread and each riser, close to intersection.
 - To edge of each winder over 300 mm deep and abutting a wall.
 - Along a landing over 300 mm deep and abutting a wall.
- Pile direction: Towards bottom of stairs and perpendicular to nosings.

570 COMPLETION

- Debris: Remove stay tacks and cut away partly loose warp and face yarns.
- Surface irregularities and tension: Check and make necessary tension adjustments.

580 WASTE

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

M60
Painting/ clear finishing

M60 Painting/ clear finishing

To be read with Preliminaries/ General conditions.

COATING SYSTEMS

110 EMULSION PAINT TO INTERNAL PLASTERED SURFACES

- Manufacturer: Contractor's choice.
 - Product reference: Submit proposals.
- Surfaces: Internal.
 - Preparation: As clauses 400, 440.
- Initial coats: As recommended by manufacturer.
 - Number of coats As recommended by manufacturer.
- Undercoats: As recommended by manufacturer.
 - Number of coats: As recommended by manufacturer.
- Finishing coats: As recommended by manufacturer.
 - Number of coats: As recommended by manufacturer.

160 DECORATIVE WOODSTAIN VARNISH PRESERVATIVE TO TIMBER FLOOR BOARDS

- Manufacturer: Submit proposals.
 - Product reference: Submit proposals.
- Surfaces: Internal previously coated timber floor boards.
 - Preparation: As clauses 400, 440.
- Initial coats: As recommended by manufacturer.
 - Number of coats: As recommended by manufacturer.
- Finishing coats: As recommended by manufacturer.
 - Number of coats: As recommended by manufacturer.

GENERAL

215 HANDLING AND STORAGE

- Coating materials: Deliver in sealed containers, labelled clearly with brand name, type of material and manufacturer's batch number.
- Materials from more than one batch: Store separately.

280 PROTECTION

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

PREPARATION**400 PREPARATION GENERALLY**

- Standard: In accordance with BS 6150.
- Suspected existing hazardous materials: Prepare risk assessments and method statements covering 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: Remove.
- Dirt, grease and oil: Remove. Give notice if contamination of surfaces/ substrates has occurred.
- Surface irregularities: Remove.
- Joints, cracks, holes and other depressions: Fill flush with surface, provide smooth finish.
- Dust, particles and residues from preparation: Remove and dispose of safely.
- Water based stoppers and fillers:
 - Apply before priming unless recommended otherwise by manufacturer.
 - If applied after priming: Patch prime.
- Oil based stoppers and fillers: Apply after priming.
- Doors, opening windows and other moving parts:
 - Ease, if necessary, before coating.
 - Prime resulting bare areas.

430 EXISTING IRONMONGERY

- Refurbishment: Remove old coating marks. Clean and polish.

440 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.
- Suspected existing hazardous materials: Prepare risk assessments and method statements covering operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
- Significant rot, corrosion or other degradation of substrates.
- 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 to remove dirt, grease and contaminants.
 - Gloss coated surfaces: Provide key.
- Partly removed coatings:
 - Additional preparatory coats: Apply to restore original coating thicknesses.
 - Junctions: Provide flush surface.
- Completely stripped surfaces: Prepare as for uncoated surfaces.

456 PREVIOUSLY COATED SURFACES - BURNING OFF

- Risk assessment and method statement: Prepare, and obtain approval before commencing work.
- Adjacent areas: Protect from excessive heat and falling, scrapings.
- Exposed resinous areas and knots: Apply to coats of knotting.
- Removed coatings: Dispose of safely.

461 PREVIOUSLY COATED WOOD

- Degraded or weathered surface wood: Take back to provide suitable substrate.
- Degraded substrate wood: Repair with sound material of same species.
- Exposed resinous areas and knots: Apply two coats of knotting.

481 UNCOATED WOOD

- General: Provide smooth, even finish with arrises and moulding edges lightly rounded or eased.
- Heads of fasteners: Countersink sufficient to hold stoppers/fillers.
- Resinous areas and knots: Apply two coats of knotting.

622 ORGANIC GROWTHS

- Dead and loose growths and infected coatings: Scrape off and remove from site
- Treatment biocide: Apply appropriate solution to growth areas and surrounding surfaces.
- Residual effect biocide: Apply appropriate solution to inhibit re-establishment of growths.

APPLICATION**711 COATING GENERALLY**

- Application standard: In accordance with BS 6150, clause 9.
- Conditions: Maintain suitable temperature, humidity and air quality during application and drying.
- Surfaces: Clean and dry at time of application.
- Thinning and intermixing of coatings: Not permitted unless recommended by manufacturer.
- Overpainting: Do not paint over intumescent strips or silicone mastics.
- Priming coats:
 - Thickness: To suit surface porosity.
 - Application: 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.

751 STAINING WOOD

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

760 VARNISHING WOOD

- First coat: Thin with isoparaffin.
 - Brush well in and lay off avoiding aeration.
- Subsequent coats: Rub down lightly along the grain between coats.

P

Building fabric sundries

P10

Sundry insulation/ proofing work

P10 Sundry insulation/ proofing work

SUNDRY INSULATION/ PROOFING WORK

To be read with Preliminaries/ General conditions

TYPES OF INSULATION

135 INSULATION LAID ACROSS CEILING TIES/ JOISTS

- Material: Mineral wool.
- Standard To BS EN 13162.
- Manufacturer: Contractor's choice.
 - Product reference: Contractor's choice.
- Recycled content: Not applicable.
- Thickness: 200 mm.
- Installation requirements:
 - Installation standard: Not applicable.
 - Insulation widths: Widest practical.
 - Laid direction: At right angles to ties/ joists.
 - Joints: Butted, no gaps.
 - Insulation: Fitted neatly around rafter ends and extended over wall plates.
 - Eaves ventilation: Unobstructed.
 - Service holes: Sealed, debris removed before laying insulation.
 - Water cistern platforms: Not applicable.

R

Disposal systems

R10

Rainwater drainage systems

R10 Rainwater drainage systems

GENERAL

SYSTEM PERFORMANCE

210 DESIGN

- Design: Complete the design of the rainwater drainage system.
- Standard: To BS EN 12056-3, clauses 3-7 and National Annexes.
- Proposals: Submit drawings, technical information, calculations and manufacturers' literature.

221 COLLECTION AND DISTRIBUTION OF RAINWATER

- General: Complete, and without leakage or noise nuisance.

PRODUCTS

375 CAST IRON PIPEWORK - FLEXIBLE COUPLINGS

- Standard: To BS EN 877, Agrément certified.
- Manufacturer: Contractor's choice.
 - Product reference: Contractor's choice.
- Coupling type: Bolted.
- Nominal size: DN150.
- Finish as supplied: Prepainted semigloss black.
- Brackets: Cast iron holderbats.
 - Fixings: Stainless steel screws.
 - Size: 40 x 4 mm.
- Accessories: Rainwater shoes.

EXECUTION

600 PREPARATION

- Work to be completed before commencing work specified in this section:
 - Below ground drainage. Alternatively, make temporary arrangements for dispersal of rainwater without damage or disfigurement of the building fabric and surroundings.
 - Painting of surfaces which will be concealed or inaccessible.

605 INSTALLATION GENERALLY

- Electrolytic corrosion: Avoid contact between dissimilar metals where corrosion may occur.
- Plastics and galvanized steel pipes: Do not bend.
- Allowance for thermal and building movement: Provide and maintain clearance as fixing and jointing proceeds.
- Protection:
 - Fit purpose made temporary caps to prevent ingress of debris.
 - Fit access covers, cleaning eyes and blanking plates as the work proceeds.

635 FIXING PIPEWORK

- Pipework: Fix securely, plumb and/ or true to line.
- Branches and low gradient sections: Fix with uniform and adequate falls to drain efficiently.
- Externally socketed pipes and fittings: Fix with sockets facing upstream.
- Additional supports: Provide as necessary to support junctions and changes in direction.
- Vertical pipes:
 - Provide a loadbearing support at least at every storey level.
 - Tighten fixings as work proceeds so that every storey is self supporting.
 - Wedge joints in unsealed metal pipes to prevent rattling.
- Wall and floor penetrations: Isolate pipework from structure.
 - Pipe sleeves: As section P31.
 - Masking plates: Fix at penetrations if visible in the finished work.
- Expansion joint pipe sockets: Fix rigidly to buildings. Elsewhere, provide brackets and fixings that allow pipes to slide.

640 FIXING VERTICAL PIPEWORK

- Bracket fixings: Bolted into masonry.
- Distance between bracket fixing centres (maximum): 1800 mm.

650 JOINTING PIPEWORK AND GUTTERS

- General: Joint with materials and fittings that will make effective and durable connections.
- Jointing differing pipework and gutter systems: Use adaptors intended for the purpose.
- Cut ends of pipes and gutters: Clean and square. Remove burrs and swarf. Chamfer pipe ends before inserting into ring seal sockets.
- Jointing or mating surfaces: Clean and, where necessary, lubricate immediately before assembly.
- Junctions: Form with fittings intended for the purpose.
- Jointing material: Strike off flush. Do not allow it to project into bore of pipes and fittings.
- Surplus flux, solvent jointing materials and cement: Remove.

675 CUTTING COATED PIPEWORK AND GUTTERS

- Cutting: Recoat bare metal.

Z

Building fabric reference specification

Z10

Purpose made joinery

Z10 Purpose made joinery

To be read with Preliminaries/ General conditions.

110 FABRICATION

- Standard: To BS 1186-2.
- Sections: Accurate in profile and length, and free from twist and bowing. Formed out of solid unless shown otherwise.
 - Machined surfaces: Smooth and free from tearing, wooliness, chip bruising and other machining defects.
- Joints: Tight and close fitting.
- Assembled components: Rigid. Free from distortion.
- Screws: Provide pilot holes.
 - Screws of 8 gauge (4 mm diameter) or more and screws into hardwood: Provide clearance holes.
 - Countersink screws: Heads sunk at least 2 mm below surfaces visible in completed work.
 - Adhesives: Compatible with wood preservatives applied and end uses of timber.

120 CROSS SECTION DIMENSIONS OF TIMBER

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

130 PRESERVATIVE TREATED WOOD

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

140 MOISTURE CONTENT

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

250 FINISHING

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

Z11

Purpose made metalwork

Z11 Purpose made metalwork

To be read with Preliminaries/ General conditions.

PRODUCTS

310 MATERIALS GENERALLY

- Grades of metals, section dimensions and properties: To appropriate British Standards. When not specified, select grades and sections appropriate for the purpose.
- Prefinished metal: May be used if methods of fabrication do not damage or alter appearance of finish, and finish is adequately protected.
- Fasteners: To appropriate British Standards and, unless specified otherwise, of same metal as component being fastened, with matching coating or finish.

FABRICATION

515 FABRICATION GENERALLY

- Contact between dissimilar metals in components: Avoid.
- Finished components: Rigid and free from distortion, cracks, burrs and sharp arrises.
 - Moving parts: Free moving without binding.
- Corner junctions of identical sections: Mitre.

520 COLD FORMED WORK

- Profiles: Accurate, with straight arrises.

FINISHING

745 PREPARATION FOR APPLICATION OF COATINGS

- General: Complete fabrication, and drill fixing holes before applying coatings.
- Paint, grease, flux, rust, burrs and sharp arrises: Remove.

780 GALVANIZING

- Standard: To BS EN ISO 1461.
- Preparation:
 - Vent and drain holes: Provide in accordance with BS EN 14713. Seal after sections have been drained and cooled.
 - Components subjected to cold working stresses: Heat treat to relieve stresses before galvanizing.
 - Welding slag: Remove.
 - Component cleaning: To BS EN ISO 8501-1.
Grade: St 2½.

Z12

Preservative/ fire retardant treatment

Z12 Preservative/ fire retardant treatment

To be read with Preliminaries/ General conditions.

110 TREATMENT APPLICATION

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

120 COMMODITY SPECIFICATIONS

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

130 PRESERVATIVE TREATMENT SOLUTION STRENGTHS/ TREATMENT CYCLES

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

610 MAKING GOOD TO PRESERVATIVE TREATMENT ON SITE

- Preservative solution: Compatible with off-site treatment.
- Application: In accordance with preservative manufacturer's recommendations.

620 MAKING GOOD TO FIRE RETARDANT TREATMENT ON SITE

- Fire retardant: Compatible with off-site treatment.
- Application: In accordance with fire retardant manufacturer's recommendations.

Z20 Fixings and adhesives

To be read with Preliminaries/ General conditions.

PRODUCTS

310 FASTENERS GENERALLY

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

320 PACKINGS

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

340 MASONRY FIXINGS

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

350 PLUGS

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

390 ADHESIVES GENERALLY

- Standards:
 - Hot-setting phenolic and aminoplastic: To BS 1203.
 - Thermosetting wood adhesives: To BS EN 12765.
 - Polyvinyl acetate thermoplastic adhesive: To BS 4071.

410 POWDER ACTUATED FIXING SYSTEMS

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

EXECUTION

610 FIXING 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/ sleeves to avoid bimetallic corrosion.
- Appearance: Fixings to be in straight lines at regular centres.

620 FIXING THROUGH FINISHES

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

630 FIXING PACKINGS

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

640 FIXING CRAMPS

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

670 PELLETED COUNTERSUNK SCREW FIXING

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

680 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.

690 USING POWDER ACTUATED FIXING SYSTEMS

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

700 APPLYING ADHESIVES

- Surfaces: Clean. Adjust 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

Z21 Mortars

To be read with Preliminaries/ General conditions.

CEMENT GAUGED MORTARS

110 CEMENT GAUGED MORTAR MIXES

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

120 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 in a mortar mix 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.

131 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.

135 SITE MADE LIME:SAND FOR CEMENT GAUGED MASONRY MORTARS

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

160 CEMENTS FOR MORTARS

- Cement: To BS EN 197-1 and CE marked.
 - Types: Portland cement, CEM I.
 - Portland limestone cement, CEM II/A-L or 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 4027 and Kitemarked.
 - To BS EN 197-1 fly ash cement, CEM II/B-V and CE marked.
 - Strength class: 32.5, 42.5 or 52.5.
- Masonry cement: To BS EN 413-1 and CE marked.
 - Class: MC 12.5.

180 ADMIXTURES FOR SITE MADE CEMENT GAUGED 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.

190 RETARDED READY TO USE CEMENT GAUGED MASONRY MORTARS

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

210 MAKING CEMENT GAUGED MORTARS

- 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.
- Working time (maximum): Two hours at normal temperatures.
- Contamination: Prevent intermixing with other materials.

LIME:SAND MORTARS**310 LIME:SAND MORTAR MIXES**

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

320 SAND FOR LIME:SAND MASONRY MORTARS

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

330 READY PREPARED LIME PUTTY

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

340 POZZOLANIC ADDITIVES FOR NONHYDRAULIC LIME:SAND MORTARS

- Manufacturer/ Supplier: Submit proposal.
 - Product reference: Submit proposal.
- Mixing: Mix thoroughly into mortar during knocking up.

345 ADMIXTURES FOR HYDRAULIC LIME:SAND MORTARS

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

360 MAKING LIME:SAND MORTARS GENERALLY

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

370 SITE PREPARED NONHYDRAULIC LIME:SAND MORTARS

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

390 KNOCKING UP NONHYDRAULIC LIME:SAND MORTARS

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

400 MAKING HYDRAULIC LIME:SAND MORTARS

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

Z22
Sealants

Z22 Sealants

To be read with Preliminaries/General conditions.

PRODUCTS

EXECUTION

610 SUITABILITY OF JOINTS

- Presealing checks:
 - Joint dimensions: Within limits specified for the sealant.
 - Substrate quality: Surfaces regular, undamaged and stable.
- Joints not fit to receive sealant: Submit proposals for rectification.

620 PREPARING JOINTS

- Surfaces to which sealant must adhere:
 - Remove temporary coatings, tapes, loosely adhering material, dust, oil, grease, surface water and contaminants that may affect bond.
 - Clean using materials and methods recommended by sealant manufacturer.
- Vulnerable surfaces adjacent to joints: Mask to prevent staining or smearing with primer or sealant.
- Backing strip and/ or bond breaker installation: Insert into joint to correct depth, without stretching or twisting, leaving no gaps.
- Protection: Keep joints clean and protect from damage until sealant is applied.

630 APPLYING SEALANTS

- Substrate: Dry (unless recommended otherwise) and unaffected by frost, ice or snow.
- Environmental conditions: Do not dry or raise temperature of joints by heating.
- Sealant application: Fill joints completely and neatly, ensuring firm adhesion to substrates.
- Sealant profiles:
 - Butt and lap joints: Slightly concave.
 - Fillet joints: Flat or slightly convex.
- Protection: Protect finished joints from contamination or damage until sealant has cured.

SCHEDULE OF WORKS

		QTY	UNIT	£	.00
	Job No: 7553 Job Title: Historic Libraries Stonyhurst External and internal repairs/restoration				
	ENABELING WORKS				
	It is assumed that all books and artefacts etc will be removed by the college prior to the commencement of this contract therefore no allowance has been made within this schedule of work.				
	SCAFFOLD				
A	The contractor is to allow for a fully enclosed scaffold for the duration of the external works which extends over the bay library roof. A separate scaffold, also enclosed, will be required to the courtyard elevation of the Arundel Library.		Item		
C	DEMOLITION/ALTERATION/RENOVATION				
C20	Demolition				
B	Carefully strip off the existing ridge tiles, roof slates, battens and felt to the roof over the Bay Library area. Store slates for re-use.		Item		
C	Carefully strip lead parapet gutter linings and cover flashings immediately behind the parapet wall over the Bay Library area.		Item		
D	Externally, carefully remove existing cast iron rainwater pipe to RHS of Square Library bay window and all associated brackets and fixings.		Item		
E	Carefully strip lead roof covering and up stand flashing from top of Square Library bay window. <i>Note, upon this covering being stripped the structural engineer should be contacted to make inspection of the bay window roof structure to investigate the lateral movement observed.</i>		Item		
F	Maintain lightning conductor to the scaffold throughout duration of the works.		Item		
G	Carefully remove the existing windows and frames to all the Bay Library windows (36 units in total) and suitably dispose.		Item		
H	Carefully dismantle all the transoms and mullions to the windows of the Bay Library and set aside for inspection. <i>For pricing purposes assume that all these pieces of stone are to be replaced.</i>		Item		

SCHEDULE OF WORKS

		QTY	UNIT	£	„00
A	Carefully remove the existing windows and frames to Square Library bay window (32 units in total) and set aside for inspection. <i>For pricing purposes assume all the windows are to be renewed.</i>		Item		
B	Carefully dismantle all the transoms and mullions to the windows of the bay window of the Square Library and set aside for inspection, note that the large central supporting mullion is to remain in situ. It is assumed that all these pieces of stone are suitable for re-use but close inspection is needed to ascertain if any internal cracking is present due to corroding cramps etc.		Item		
C	Carefully remove the existing windows and frames to the Arundel Library (66 units in total) and set aside for inspection. <i>For pricing purposes assume all the windows are to be renewed.</i>		Item		
D	Allow for any temporary propping and support as necessary whilst the windows are dismantled.		Item		
E	Carefully hack off defective render to back of parapet wall above Bay Library and suitably dispose.		Item		
F	Carefully remove one section of high level book shelf to right hand side (when looking at the window from inside) of Square Library bay window to facilitate renewal of the damp affected plaster.		Item		
G	Carefully remove five sections of high level and low level book shelves to left hand side (when looking at the window from inside) of Square Library bay window to facilitate renewal of the damp affected plaster.		Item		
H	Hack off damp affected plaster around window reveals and head of bay window to Square Library. Approx area 15 m ² .		Item		
I	Provisionally allow for carefully hacking off 10m ² of loose plaster to the Do Room.		Item		
J	Carefully remove the timber drip and mould from below the 4 windows to the Bay Library and set aside for redecoration and re-fixing.		Item		
K	Carefully remove 1 section of high level timber book shelving to right hand side of window 4 to Bay Library to enable repair of the damp affected plaster.		Item		
L	Carefully hack off back to a sound base the damp affected plaster to all window reveals and window heads to the 4 windows in the Bay Library.		Item		

SCHEDULE OF WORKS

		QTY	UNIT	£	.00
A	Carefully hack off back to a sound base the damp affected plaster over window 4 to Bay Library. Approx 4m ² .		Item		
B	Carefully hack off back to a sound base the damp affected plaster over and to the side of window 2 to Bay Library. Approx 5m ² .		Item		
C	Carefully take up the existing carpet to the Bay Library and suitably dispose.		Item		
D	Carefully remove sections of book shelving to either end of the Arundel Library adjacent the Bay Library to facilitate renewal of the damp affected plaster.		Item		
E	Carefully hack off back to a sound base the damp affected plaster adjacent the door opening and also to the corner opposite in the Arundel Library. Approx 8m ² .		Item		
F	Carefully hack off back to a sound base the damp affected plaster to the left hand side of the bay window in the Arundel Library. Approx 16m ² .		Item		
G	Carefully remove 1 number damaged full mullion to window above bay window to square library		Item		
C52	Fungus/ beetle eradication				
H	Prior to new timber battens being installed to section of roof removed over Bay Library area inspect and treat existing timber rafters with Sovereign FLX (Solvent Based) Fungicide Insecticide, Sovereign Chemicals Ltd, Park Road, Barrow in Furness, Cumbria, LA14 4EQ. Apply in strict accordance with the manufactures recommendations. Product to carry 20yr minimum guarantee.		Item		
F	MASONRY				
I	Stone for the project is to be sourced from the following quarry: Brown Bros (Longridge) Limited Leeming Quarry Stonyhurst Clitheroe BB7 9QY Tel: 01254 826457		Item		

SCHEDULE OF WORKS

		QTY	UNIT	£	.00
A	The contractor is to allow for a suitably qualified stone mason to oversee the works and produce drawings of all new and indented pieces of stone. A copy of the drawings should be kept on site for inspection during the course of the work. A further copy of these drawings should be handed to the contract administrator on completion of the contract. <u>Renewal/Indentation of Stonework</u>		Item		
B	Carefully cut out defective stonework as scheduled, ensuring that the arrises of the apertures are clean and undamaged. Carefully remove the corroded fixing cramp and insert a new stainless steel cramp set in the stone using polyester resin. Supply and fix stone indents dimensioned to match existing. Full stones would normally be bedded in a 3:1 sand, lime mortar and shall incorporate suitable non ferrous metal fixings where required. Small indents to be placed in polyester grout/resin. On completion of the fixing, the bed joint shall be re-pointed to match as near as possible surrounding stonework. <u>Stonework Restoration</u>				
C	Carefully remove decayed or otherwise defective areas of stonework in accordance with the schedule and any marked up photographs/drawings. Using hand held tools form a new sound base finishing square to avoid feather edging. Introduce non-ferrous reinforcement with dowels and wire according to need and depth of repair. During the preparation work should you find that the depth of decay is excessive then consideration must be given to replacing the affected masonry with new materials. If this is apparent provide a quotation for the extra costs prior to replacing any stone. Progressively restore forward, scheduled areas of masonry using a blended specialist restoration mortar in layers of even thickness. Well tamp around reinforcement and finished with a wooden float to original line and profile. The restoration mortar will be bespoke to the contract and shall be a mixture of crushed stone dust, fine aggregates, pigments and lime. Prior to commencement samples should be offered for approval. On completion of stonework repairs, all newly formed joints to be mechanically ground out to full depth and re-pointed to match surrounding areas.				

		QTY	UNIT	£	.00
	<u>Re-pointing of Stonework</u>				
A	Using hand held tools and fien cutters remove all loose and friable materials to a depth not less than twice the face width of the joint or to an agreed depth. Care to be taken not to damage the aris or face during this process. Brush out all loose materials and flush out the mortar joints leaving the surface damp ready to receive the new mortar. Carefully re-point the mortar joint using mortar to an approved designated mix: Provisionally allow for re-pointing using mix designation 1 part Normal Hydraulic Lime and 3 parts well graded sand or aggregate. The exact mix designation is to be agreed prior to commencement of work. Care must be taken that the surface does not dry out too quickly during warm weather. Wetting down with fine water spray and damp hessian will be required. Protect from frost using bubble wrap insulation, dry hessian sacking and insulation materials fixed to the surface during the drying out process.				
	<u>De-Scaling Stonework</u>				
B	Carefully remove loose and friable stone using hand held scrapers, carborundum stones and phosphor bronze brushes to expose a sound face. During the preparation work should you find that the depth of decay is excessive then consideration must be given to replacing the affected masonry with new materials. If this is apparent provide a quotation for the extra costs prior to replacing any stone.				
F21	Natural stone/ ashlar walling/ dressings				
	<u>Window 1</u>				
C	Indent piece of stone above top right hand window opening not exceeding 500mm in length.		Item		
D	Indent piece of stone to lower right hand side of bottom right hand window opening not exceeding 500mm in length.		Item		
E	Indent stone cill below bottom left hand window opening, not exceeding 500mm in length.		Item		

SCHEDULE OF WORKS

		QTY	UNIT	£	.00
A	Supply and fit new transoms and mullions including new stainless steel dowels and cramps etc as required.		Item		
	<u>Window 2</u>				
B	Indent piece of stone above top left hand window opening not exceeding 5mm in length.		Item		
C	Indent piece of spalled stone above top middle window opening not exceeding 500mm in length.		Item		
D	Indent piece of spalled stone to top right hand side of top right hand window opening not exceeding 200mm in length.		Item		
E	Indent piece of stone to centre section of the right hand side of the bottom right hand window opening not exceeding 500mm in length.		Item		
F	Indent piece of stone to cill below bottom left hand window opening not exceeding 500mm in length.		Item		
G	Supply and fit new transoms and mullions including new stainless steel dowels and cramps etc as required.		Item		
	<u>Window 3</u>				
H	Indent piece of stone including part of the transom moulding above the top left hand and top centre window openings not exceeding 750mm in length.		Item		
I	Indent piece of stone to right hand side bottom right hand window opening not exceeding 750mm in length.		Item		
J	Indent pieces of stone and part of window mullion moulding below all three lower window openings not exceeding 1.5m in length.		Item		
K	Supply and fit new transoms and mullions including new stainless steel dowels and cramps etc as required.		Item		
	<u>Window 4</u>				
L	Indent pieces of stone above top left hand window opening and to top left hand side of top left hand window opening not exceeding 750mm in length.		Item		
M	Indent piece of stone above top middle window opening not exceeding 500mm in length.		Item		
N	Indent piece of stone adjacent top left hand side of left hand centre window opening not exceeding 500mm in length.		Item		

SCHEDULE OF WORKS

		QTY	UNIT	£	00
A	Indent piece of stone to fractured cill below the bottom left hand window opening not exceeding 500mm in length.		Item		
B	Supply and fit new transoms and mullions including new stainless steel dowels and cramps etc as required.		Item		
	<u>Bay Window to Square Library</u>				
C	Carefully re-build bay window using stonework previously set aside, allow for inserting new stainless steels pins and cramps etc.		Item		
D	Renew 1 number full mullion to window above bay window to square library, allow for new stainless steel fixings etc.		Item		
F30	Accessories/ sundry items for brick/ block stone walling				
E	Allow to lift, insert new stainless steel dowels and re-bed top course of stone to front of parapet wall over Bay Library area. As indicated on drawing number 7553 A(21)01.		Item		
F	Allow for new stone capping slabs to parapet wall over Bay Library.		Item		
H	CLADDING/COVERING				
H62	Natural slating – Works to be undertaken via an experienced competent roofer familiar with natural slate re-roofing of historic Grade I listed buildings.				
G	To top of the existing rafters lay new Tyvek Supro breathable underfelt doubled up with staggered laps. To top of new breathable under felt fit new pressure treated 50mm x 25mm timber softwood battens, nailed fixed with copper nails 3.5mm x 65mm minimum. Refit previously set aside roof slates, double lapped, set in courses as previous. Gauge, lap and margin to be calculated according to slate size. Tiles to be twice nailed to new battens.		Item		
H	As per above specification allow for fitting slate ventilators at eaves level to roof, in accordance with manufacturers instructions.		Item		
I	Allow for supply and fitting approx 15% (of the total roof area) of re-claimed slates to the roof area over bay library.		Item		

SCHEDULE OF WORKS

		QTY	UNIT	£	.00
H71	Lead sheet coverings/ flashings				
A	Lead work to be fixed generally in accordance with Lead Sheet Association guidelines and other relevant guidelines produced by English heritage.		Item		
B	Allow for forming new drips and bays to parapet gutter, note height of drips should be a minimum of 60mm.		Item		
C	Install new code 7 lead parapet gutter over Bay Library area.		Item		
D	Install new code 4 apron flashings to abutment of roof with parapet wall. Flashings to be max 1500mm in length with min 100mm laps		Item		
E	Install new code 4 soakers and flashings to abutments of chimney on area of roof stripped over Bay Library. Cover flashing to have min 100 mm laps, length of soakers to be the gauge plus the head lap of the slates and min 175mm in width.		Item		
F	Install new code 4 sacrificial lead apron flashings to parapet gutter.		Item		
G	Install new code 6 lead flashing below stone slabs and to back of parapet wall as indicated on drawing number A(21)01.		Item		
H	Install new code 6 lead gutter to top of Square Library bay window ensuring a minimum up stand of 150mm is maintained. Also allow for forming new larger lead pipe outlet.		Item		
L	WINDOWS/DOORS/STAIRS				
L10	Windows/ Roof lights/ Screens/ Louvre's				
I	Allow for supply and fitting new steel double glazed windows to the Bay Library (36 units in total), provisionally allow for 1 number opening light to each window (4 in total).		Item		
J	Allow for supply and fitting new steel double glazed windows to the Square Library bay window (32 units in total), provisionally allow for 2 number opening lights to each window (4 in total).		Item		
K	Allow for supply and fitting new steel double glazed windows to the Arundel Library (66 units in total), provisionally allow for 1 number opening light to each window and 2 to the bay (6 in total).		Item		

SCHEDULE OF WORKS

		QTY	UNIT	£	.00
M	SURFACE FINISHES				
M20	Plastered/ Rendered/ Roughcast coatings				
A	Contractor to ascertain exact type and composition of plaster and submit proposals to CA prior to commencement of any work.		Item		
B	Allow for repair of small section of water damaged plaster to Arundel Library as indicated on the works drawings.		Item		
C	Allow for repair of small section of water damaged plaster to high level of rear wall in Square Library.		Item		
D	Allow for re plastering of the damp affected areas (as previously described in section C20) to the Bay Library.		Item		
E	Allow for re plastering of the damp affected areas (as previously described in section C20) to the Square Library.		Item		
F	Allow for re plastering of the damp affected areas (as previously described in section C20) to the Arundel Library.		Item		
G	Allow for patch plastering loose sections of plaster to the walls of the Do Room, approx 10m ² .		Item		
M51	Edge fixed carpeting				
H	All carpet fitted as part of the works should match that fitted to the More Library		Item		
I	Supply and fit new carpet to Arundel Library. Allow for new underlay and grippers etc as required to facilitate the installation. Note the historic 'linoleum type' floor covering to this area is of historic importance and should not be damaged in any way by the fitment of the carpet.		Item		
J	Supply and fit new carpet to Square Library. Allow for new underlay and grippers etc as required to facilitate the installation.		Item		
K	Supply and fit new carpet to Bay Library. Allow for new underlay and grippers etc as required to facilitate the installation.		Item		
M60	Painting/ clear finishing				
L	Thoroughly prepare and re-decorate the walls to the Do Room.		Item		

SCHEDULE OF WORKS

		QTY	UNIT	£	00
A	Thoroughly prepare and re-decorate the walls and ceiling to the Arundel Library.		Item		
B	Allow for preparation and re varnishing and/or waxing of the storage cabinets under the windows to the Arundel Library		Item		
C	Thoroughly prepare and re-decorate the walls and ceiling to the Bay Library.		Item		
D	Allow for preparation and re varnishing and/or waxing of the storage cabinets under the windows to the Bay Library		Item		
E	Allow for preparation and re varnishing and/or waxing of any sun bleached timber to the Bay Library.		Item		
F	Thoroughly prepare and re-decorate the walls and ceiling to the Square Library.		Item		
G	Allow for preparation and re varnishing and/or waxing of the bench seat under the window to the Square Library		Item		
H	Allow for preparation and re varnishing and/or waxing of any sun bleached timber to the Square Library.		Item		
I	Allow for preparation and re varnishing of the previously removed timber drips and moulds to the Bay Library, re fix on completion.		Item		
	FURNITURE/EQUIPMENT				
N10	General Fixtures/Furnishings/Equipment				
J	Following plaster repairs re-fix previously removed book shelving.		Item		
P	BUILDING FABRIC SUNDRIES				
P10	Sundry insulation/ proofing work				
K	Before completion of the external slating works allow for installing 270mm thick loose laid insulation over the existing ceiling over the bay library area.		Item		
P31	Holes, chases, covers and supports for services				
L	Allow for builders work in connection with M+E services in accordance with schedules produced by JRB Ltd (M+E Consultant)		Item		

SCHEDULE OF WORKS

		QTY	UNIT	£	.00
R	DISPOSAL SYSTEMS				
R10	Rainwater drainage systems				
A	To the location of previously removed rainwater downpipe fix new cast iron 150mm diameter rainwater pipe and hopper, fix with wooden dowels and cast iron pins into the masonry. Ensure all previous metal fixings are removed from masonry prior to installation.		Item		
T	Mechanical Services				
A	Allow for mechanical services installation in accordance with specification produced by JRB Ltd, allow for any attendance as necessary.		Item		
V	Electrical Services				
B	Allow for electrical services installation in accordance with specification produced by JRB Ltd, allow for any attendance as necessary.		Item		