

AHR Group Ltd

Manchester Metropolitan University

Manchester Metropolitan University - Study Space

Preambles

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Internal refurbishment works to University Study Space.

Contents

C20 Demolition	1
C90 Alterations - repair, refurbish, refit	4
K10 Gypsum board dry linings/ partitions/ ceilings	5
K30 Panel partitions.....	8
K45 Suspended ceiling system alterations	10
M20 Plastered/ rendered/ roughcast coatings	14
M50 Rubber/ plastics/ cork/ lino/ carpet tiling/ sheeting.....	17
M52 Decorative papers/ fabrics	21
M60 Painting/clear finishing.....	24
N10 General fixtures/ furnishings/ equipment	29
N12 Commercial catering fittings, furnishings and equipment	30
Z20 Fixings and adhesives.....	32
Z31 Powder coatings	34

C20 Demolition

General requirements

110 Desk study/ Survey

1. **Scope:** Before starting deconstruction/ demolition work, examine available information, and carry out a survey of:
 - 1.1. the structure or structures to be deconstructed/ demolished,
 - 1.2. the site on which the structure or structures stand, and
 - 1.3. the surrounding area.
2. **Report and method statements:** Submit, describing:
 - 2.1. Form, condition and details of the structure or structures, the site, and the surrounding area.
 - 2.1.1. **Extent:** As per AHR Tender Drawings and Specifications.
 - 2.2. Type, location and condition of features of historical, archaeological, geological or ecological importance.
 - 2.3. Type, location and condition of adjoining or surrounding premises that might be adversely affected by removal of the structure or structures, or by noise, vibration and/ or dust generated during deconstruction/ demolition.
 - 2.4. Identity and location of services above and below ground, including those required for the Contractor's use, and arrangements for their disconnection and removal.
 - 2.5. Form and location of flammable, toxic or hazardous materials, including lead-based paint, and proposed methods for their removal and disposal.
 - 2.6. Form and location of materials identified for reuse or recycling, and proposed methods for removal and temporary storage.
 - 2.7. Proposed programme of work, including sequence and methods of deconstruction/ demolition.
 - 2.8. Details of specific pre-weakening required.
 - 2.9. Arrangements for protection of personnel and the general public, including exclusion of unauthorized persons.
 - 2.10. Arrangements for control of site transport and traffic.
 - 2.11. **Special requirements:** None at present.

120 Extent of deconstruction/ demolition

1. **General:** Subject to retention requirements specified elsewhere, deconstruct/ demolish structures down to levels shown on AHR Drawings.

130 Groundworks

1. **Old foundations, slabs and the like:** Break out in locations and to the extents stated.
2. **Contaminated material:** Remove, and carry out remediation required by the Enforcing Authority.

140 Bench marks

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

150 Features to be retained

1. **General:** Keep in place and protect the following: As per AHR Tender Drawings and Specifications.

Services affected by deconstruction/ demolition

210 Services regulations

1. **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

1. **Services affected by deconstruction/ demolition work:** Locate and mark positions.
2. **Mains services marking:** Arrange with the appropriate authorities for services to be located and marked.
 - 2.1. **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

1. **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.

270 Services to be retained

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

Deconstruction/ demolition work

310 Workmanship

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

340 Health hazards

1. **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

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

370 Partly demolished structures

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

380 Dangerous openings

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

391 Asbestos-containing materials – unknown occurrences

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

410 Unforeseen hazards

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

450 Site condition at completion

1. **Debris:** Clear away and leave the site in a tidy condition.
2. **Other requirements:** None at present.

Materials arising

510 Contractor's property

1. **Components and materials arising from the deconstruction/ demolition work:** Property of the Contractor except where otherwise provided.
2. **Action:** Remove from site as work proceeds where not to be reused or recycled for site use.

520 Recycled materials

1. **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.
2. **Evidence of compliance:** Submit full details and supporting documentation.
 - 2.1. **Verification:** Allow adequate time in programme for verification of compliance.

Ω End of Section

C90

Alterations - repair, refurbish, refit

General

110 Descriptions

1. Location of alterations: Refer to AHR Drawings.

120 Employer's property

1. Components and materials arising from alterations that are to remain the property of the employer: As per AHR Drawings.
 - 1.1. Protection: Maintain until items listed above are removed by the employer or reused in the works, or until the end of the contract.
2. Special requirements: None.

130 Recycled materials

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

140 Removal

1. Scope of removal: Refer to AHR Drawings.
2. Special requirements: None.

Ω End of Section

K10

Gypsum board dry linings/ partitions/ ceilings

Types of dry lining

115 Gypframe metal Studs with two layers of 12.5 mm Gyproc Wallboard on each side forming new internal partition walls

1. As indicated on AHR Drawing MMU-RB-SS-22-001:
New Partition Walls (i.e. partition Type 1 sections):
 - Line denotes location of partition Type 1, partition consist of two layers of Gyproc Wallboard 12.5 mm complete with plaster skim each side of Gypframe 70 S 50 'C' Studs at 600 mm centres. All works to be in accordance with manufacturer's instructions and product data sheets.
 - 30min - integrity.
 - 30min - Insulation.
 - 45 - RwdB.
 - Height max - 4200 mm.

General/ preparation

335 Additional supports

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

Components

400 Gypsum boards generally

1. **Standard**
 - 1.1. Gypsum plasterboard to BS EN 520.
 - 1.2. Gypsum fibre board to BS EN 15283-2.
 - 1.3. **Evidence of compliance:** Submit Declaration of Performance (DoP).

401 Gyproc Wallboards forming new internal partitions

1. As per AHR Drawing MMU-RB-SS-22-001, line denotes location of partition Type 1, partition consist of two layers of Gyproc Wallboard 12.5 mm complete with plaster skim each side of Gypframe 70 S 50 'C' Studs at 600 mm centres.
2. **Type:** To BS EN 520, type A.
3. **Reaction to fire:** Class A2-s1, d0 or better.
4. **Water vapour resistance factor:** Dry - 10 μ (as per manufacturer's standard).
5. **Thermal conductivity:** 0.19 W/m²K as per manufacturer's standard.
6. **Other BS EN 520 characteristics:** None.

Installation

435 Dry linings generally

1. **General:** Use fixing, jointing, sealing and finishing materials, components and installation methods recommended by board manufacturer.
2. **Cutting gypsum boards:** Neatly and accurately without damaging core or tearing paper facing.
 - 2.1. **Cut edges:** Minimize and position at internal angles wherever possible. Mask with bound edges of adjacent boards at external corners.
3. **Fixings boards:** Securely and firmly to suitably prepared and accurately levelled backgrounds.
4. **Finishing:** Neatly to give flush, smooth, flat surfaces free from bowing and abrupt changes of level.

455 Metal framing for partitions/ wall linings

1. **Setting out:** Accurately aligned and plumb.
 - 1.1. **Frame/ Stud positions:** Equal centres to suit specified linings, maintaining sequence across openings.
 - 1.2. **Additional studs:** To support vertical edges of boards.
2. **Fixing centres at perimeters (maximum):** 600 mm.
3. **Openings:** Form accurately.
 - 3.1. **Doorsets:** Use sleeved or boxed metal studs and/ or suitable timber framing to achieve strength grade requirements for framing assembly and adequately support weight of door.
 - 3.2. **Services penetrations:** Allow for associated fire-stopping.

510 Sealing gaps and air paths

1. **Location of sealant:** To perimeter abutments and around openings.
 - 1.1. **Pressurized shafts and ducts:** At board-to-board and board-to-metal frame junctions.
2. **Application:** To clean, dry and dust free surfaces as a continuous bead with no gaps.
 - 2.1. **Gaps greater than 6 mm between floor and underside of gypsum board:** After sealing, fill with jointing compound.

590 Fixing gypsum board to metal framing/ Furrings

1. **Partitions/ Wall linings:** Fix securely and firmly at the following centres (maximum):
 - 1.1. **Single layer boarding:** To all framing at 300 mm centres. Reduce to 200 mm centres at external angles.
 - 1.2. **Multi-layer boarding:** Face layer at 300 mm centres, and previous layers around perimeters at 300 mm centres.
2. **Ceilings:** 230 mm. Reduce to 150 mm at board ends and at lining perimeters.
3. **Position of screws from edges of boards (minimum):** 10 mm.
 - 3.1. **Screw heads:** Set in a depression. Do not break paper or gypsum core.

595 Deflection heads

1. **Fixing boards:** Do not fix to head channels.

Finishing

650 Level of dry lining across joints

1. **Sudden irregularities:** Not permitted.

2. **Joint deviations:** Measure from faces of adjacent boards using methods and straightedges (450 mm long with feet/ pads) to BS 8212, clause 3.3.5.
 - 2.1. **Tapered edge joints**
 - 2.1.1. Permissible deviation (maximum) across joints when measured with feet resting on boards: 3 mm.
 - 2.2. **External angles**
 - 2.2.1. Permissible deviation (maximum) for both faces: 4 mm.
 - 2.3. **Internal angles**
 - 2.3.1. Permissible deviation (maximum) for both faces: 5 mm.

670 Seamless jointing to gypsum boards

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

680 Skim coat plaster finish to Gyproc Wallboards

1. **Plaster type** Thistle Multi Finish as per manufacturer's instructions.
 - 1.1. **Thickness:** 2-3 mm.
2. **Joints:** Fill and tape except where coincident with metal beads.
3. **Finish:** Tight, matt, smooth surface with no hollows, abrupt changes of level or trowel marks.

695 Installing beads/ Stops

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

Ω End of Section

K30 Panel partitions

Timber requirements - Not Used

Types of partition

110 Vertical Timber Slat/Batten Partition

1. As per AHR Drawing MMU-RB-SS-22-001:
 - Line denotes location of new internal timber slat/batten partition system. System to consist of 38x75mm vertical timber slats/battens set 100mm wide powdercoated perimeter framing. Battens to be spaced 75mm apart. Height of partition to be approximately 2600mm high from FFL. Allow for fixing base track of perimeter frame down to floor and Head track to be fixed to soffit via powdercoated vertical rigid hangers. In locations shown allow for providing arched openings/walkways trimming openings out of powdercoated framing. Partition System shall be made bespoke and final details to be confirmed with the Contractor.

Generally

310 Compliance with performance requirements

1. UKAS or equivalent-accredited laboratory test/ assessment reports: Submit for the following: Reaction to fire performance and reduction of sound transmission.
2. Materials, components and details: In accordance with test/ assessment reports. Give notice if discrepancies arise.

340 Environmental conditions

1. General: Before, during and after installation, maintain temperature and humidity levels similar to those that will prevail after building is occupied.

380 Coordination with others

1. Fire/ Sound barriers within floor and ceiling voids: Align accurately with partitions.
2. Service runs and outlets: Check designated routes. Do not obstruct outlets and access panels.

Installation

410 Workmanship generally

1. Setting out: Plumb, true to line and level, and free from bowing, undulations and other planar distortions.
2. Joints: Align accurately with no lipping.
3. Stability: Fix securely, with additional supports where necessary at perimeters.
4. Moisture and thermal movement of framing/ panels: Make adequate allowance.

425 Installing relocatable partitions

1. Site dimensions: Check before installation. Give notice of discrepancies.
2. Perimeter abutments: Accommodate deviations whilst maintaining partition system performance. Form make up/ closer pieces accurately around projections and features.
3. Customization: Do not cut or otherwise alter framing/ panels on site, except where shown on drawings.
4. Intermediate joints in exposed frame members and trims: Keep to a minimum.

5. **Electrical continuity and earth bonding:** To BS 7671 (The IEE Wiring Regulations).

470 Perimeter seals

1. **Sealant material:** A type recommended by partition/ panel manufacturer.
2. **Application:** Continuously, to clean, dry, dust-free surfaces, leaving no gaps. In accordance with the sealant manufacturer's instructions.

475 Fire-stopping

1. **General:** Seal gaps at junctions of partitions with perimeter abutments, cavity barriers, service penetrations, etc. to prevent penetration of smoke and flame.
2. **Materials:** Non-combustible or intumescent.
3. **Fire-stopping:** Cross-reference NBS section P12 for requirements of fire-stopping systems.

490 Ironmongery for relocatable partitions

1. **Frames and doors:** Prepare accurately to accept ironmongery and associated fixings.
2. **Ironmongery installation:** Accurate and without damage to components or surrounding surfaces.
 - 2.1. **Fasteners:** Supplied by partition/ ironmongery manufacturer. Finish to match component.
3. **Completion:** Check, adjust and lubricate as necessary for correct operation.

495 Post-installation requirements for relocatable partitions

1. **General:** Inspect and adjust for correct fit and operation.
2. **Documentation:** Submit in accordance with the requirements of Regulation 38. Submit for each partition type, including:
 - 2.1. Partition type and construction.
 - 2.2. Manufacturer's identity.
 - 2.3. Sound and fire rating.
 - 2.4. Surface finishes and Light Reflectance Values (as manufactured).
 - 2.5. Requirements for fixtures and fittings.
 - 2.6. Test data and fire certificates.
 - 2.7. Special requirements.
 - 2.8. Dismantling and reassembly procedures.
 - 2.9. **Maintenance:** Replacement of panels, access to services, cleaning, etc.

Ω End of Section

K45

Suspended ceiling system alterations

General

110 Definitions

1. **Ceiling:** Items collectively constituting the ceiling surface, including infill units, boards, stretched fabric, access units and grid.
2. **Ceiling system:** Ceiling plus suspension components and integrated services fittings.

120 Existing suspended ceiling system

1. As per AHR Drawing MMU-RB-SS-00-002, hatch indicates approximate area of existing suspended ceiling to be retained and ceiling tiles replaced with tiles to match existing to suit alterations to lighting alterations.

Products

310 Products generally

1. **Ceiling systems and components:** To BS EN 13964.

Execution

610 Preparation

1. **Documentation:** Obtain available documentation of the existing ceiling system and services, including record drawings and maintenance manual. Check on site.

620 Execution generally

1. **Workmanship:** In accordance with BS EN 13964 Annex A.
2. **Designated ceiling system components:** Remove carefully without affecting surrounding areas.
3. **Disposal of removed components:** Remove from site.
4. **Retained components:** Do not distort or damage retained components.
5. **Reuse of ceiling system components**
 - 5.1. **Condition:** Undamaged, free from distortion, clean.
 - 5.2. **Units and boards:** Match adjacent areas where appropriate.
6. **Cutting units, boards and components:** Cut neatly and accurately. Maintain edge profiles.
 - 6.1. **Openings:** Suit sizes and edge details of fittings.

650 Setting out

1. **General:** Maintain ceiling system accurately, continuous, even, and jointed at regular intervals. Provide level soffits free from undulations, lipping and distortions in grid members.
2. **Infill units, access units, integrated services:** Fit and align correctly.
3. **Minimum size for edge and perimeter infill units** half standard width or length where practicable.
4. **Grid:** Position to suit infill unit sizes. Allow for permitted deviations from nominal sizes.
5. **Infill joints and exposed suspension members:** Straight, aligned and parallel to walls or setting out lines. Where building elements and features to which the ceiling system relates are not square, straight or level, give notice.

670 Installing suspension

1. Fixing
 - 1.1. Angle or strap hangers: Do not rivet for top fixing.
 - 1.2. Wire hangers: Tie securely with tight bends to loops to prevent vertical movement.
2. Installation
 - 2.1. Alignment Vertical or near vertical.
 - 2.2. Maintain straight, with suitable tension and without bends or kinks.
 - 2.3. Do not allow hangers to press against fittings, services and insulation covering ducts and pipes.
3. Obstructions: Where obstructions prevent vertical installation, either:
 - 3.1. brace diagonal hangers against lateral movement; or
 - 3.2. hang ceiling system on an appropriate rigid sub-grid bridging across obstructions and supported to prevent lateral movement.
4. Extra hangers: Provide as required to carry additional loads.

675 Installing perimeter trims

1. Jointing: Neat and accurate, without lipping or twisting.
 - 1.1. External and internal corners: Mitre joints.
 - 1.2. Intermediate butt joints: Minimize. Use longest available lengths of trim. Align adjacent lengths, with matching joints.
2. Fixing: Fix firmly to perimeter wall or other building structure.
 - 2.1. Fixing centres: As existing.
3. Finish: Apply before ceiling grid is installed.
 - 3.1. Prime new timber edge battens with undercoat and final coat to visible surfaces.

680 Installing boards

1. Fixing boards to grids: Screw boards securely and firmly to grid members.
2. Surface: Provide a flat surface free from bowing and lipping. Set heads of screws below surface of boards and fill flush with surface.
3. Movement joints: Provide as appropriate for the area of ceiling and align with movement joints in surrounding structure.
4. Boards applied in two or more layers: Stagger joints.
5. Board edges: Fully support. Screw to grid members.

700 Coordination with services

1. Preparation: Check existing position of services against proposed alterations.
2. Clashes between services and ceiling system: Give notice.
3. Coordination: Programme works to minimize impact.
4. Services disconnection: Give notice.

710 Integrated services

1. General: Position services accurately, support adequately. Align and level in relation to the ceiling. Alterations must not diminish performance of ceiling system.
2. Surface spread of flame rating of additional supporting material: Match ceiling material.
3. Services outlets
 - 3.1. Supported by ceiling system: Provide additional hangers.

3.2. Independently supported: Provide flanges to support altered ceiling system.

715 Luminaires

1. Independently support luminaires: Adjust suspension to line and level of ceiling as necessary.
2. Surface mounted luminaires: Do not inhibit designed grid expansion in fire.
3. Modular fluorescent recessed luminaires: Compatible with ceiling module. Extension boxes must not foul ceiling system.
4. Continuous recessed rows of luminaires: Provide flanges for support of grid and infill units, unless mounted above grid flanges. Retain in place with lateral restraint.
5. Fire protecting and resisting ceiling systems: Luminaires must maintain protection integrity of ceiling system.
6. Access: Provide access for maintenance of luminaires.

720 Mechanical services

1. Fan coil units
 - 1.1. Inlet and outlet grilles: Trim ceiling grid and infill units to suit.
 - 1.2. Void clearance beneath: Sufficient for ceiling system and fan coil components.
 - 1.3. Suspension and connections: Permit accurate setting out and levelling of fan coil units.
2. Air grilles and diffusers
 - 2.1. Linear air diffusers: Provide flanges for support of grid and infill units. Provide for displacement of ceiling grid. Retain in place with lateral restraint.
 - 2.2. Grille and diffuser ceiling joints: Provide smudge rings and edge seals.

725 Other services

1. Smoke detectors and PA speakers
 - 1.1. Infill units: Scribe to suit.
 - 1.2. Flexible connections: Required.
2. Sprinkler heads: Carefully set out and level.

730 Installing insulation

1. Fitting: Fit accurately and firmly with closely butted joints and no gaps.
2. Insulation within individual infill units: Fit closely. Secure to prevent displacement when infill units are installed or subsequently lifted. Reseal cut dustproof sleeving.
3. Width: Lay insulation in the widest practical widths to suit grid member spacings.
4. Services: Do not cover electrical cables not sized accordingly. Cut insulation carefully around electrical fittings, etc. Do not lay insulation over luminaires.
5. Sloping and vertical areas of ceiling system: Fasten insulation to prevent displacement.

735 Installing cavity fire barriers

1. Fixing
 - 1.1. General: Fix firmly to channels or angles at abutments to building structure.
 - 1.2. At perimeters and joints: Secure. Provide permanent stability and continuity with no gaps. Provide a complete barrier to smoke and flame.
2. Joints: Form to preserve integrity in fire.
3. Service penetrations: Cut and pack to maintain barrier integrity. Sleeve flexible materials. Adequately support services passing through the barrier.
 - 3.1. Ceiling systems intended for fire protection: Do not impair fire-resisting performance of ceiling system.

- 3.2. Ceiling systems not intended for fire protection: Do not mechanically interlink barriers with ceiling system.

Completion

910 Documentation

1. Building manual and records: Update showing alterations made.

Ω End of Section

M20

Plastered/ rendered/ roughcast coatings

Types of coating

110 Existing Plaster Wall Finishes

1. As per AHR Drawing MMU-RB-SS-22-001, to area of works all existing plaster finishes shall be made good allow for filling using Gyproc Easifill 60 and sanding in accordance with manufacturer's instructions and product data sheets. Walls to be left ready for decoration.

280 Gypsum plaster skim coat to new plasterboard

1. To new internal Gyproc Wallboard partitions identified within proposed area of works as per AHR Drawing MMU-RB-SS-22-001.
2. Plasterboard: 2 layers of Gyproc 12.5mm wallboard as per AHR drawings.
3. Plaster: Board finish/ finish plaster to BS EN 13279-1.
 - 3.1. Manufacturer: British Gypsum, Head Office, East Leake, Loughborough, Leicestershire, LE12 6HX; Tel: 0115 945 1000/Tel: 0844 800 1991 (+44 844 800 1991); Fax: 0844 561 8816 (+44 844 561 8816); Email: bgtechnical.enquiries@bpb.com or similar and equal approved.
 - 3.1.1. Product reference: Thistle Multi Finish. All works to be in accordance with manufacturer's instructions and product data sheets.
 - 3.2. Thickness: 2-3 mm.
 - 3.3. Finish: Smooth.

General - Not Used

Materials and marking of mortar

495 Mixing

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

497 Cold weather

1. General: Do not use frozen materials or apply coatings on frozen or frost bound substrates.
2. 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.
3. Internal work: Take precautions to enable internal coating work to proceed without detriment when air temperature is below 3°C.

Preparing substrates

510 Suitability of substrates

1. Soundness: Free from loose areas and significant cracks and gaps.
2. Cutting, chasing, making good, fixing of conduits and services outlets and the like: Completed.

3. **Tolerances:** Permitting specified flatness/ regularity of finished coatings.
4. **Cleanliness:** Free from dirt, dust, efflorescence and mould, and other contaminants incompatible with coatings.

551 Removal and renewal of existing plaster/ render

1. **Location and extent:** Agree, at least on a provisional basis, before work commences. Minimize extent of removal and renewal.

556 Removing defective existing render

1. **Render for removal:** Detached, hollow, soft, friable, badly cracked, affected by efflorescence or otherwise damaged.
2. **Removing defective render:** Cut out to regular rectangular areas with straight edges.
 - 2.1. **Horizontal and vertical edges:** Square cut or slightly undercut.
 - 2.2. **Bottom edges to external render:** Do not undercut.
 - 2.3. **Render with imitation joints:** Cut back to joint lines.
3. **Cracks**
 - 3.1. **Fine hairline cracking/ crazing:** Leave.
 - 3.2. **Other cracks:** Cut out to a width of 75 mm (minimum).
4. **Dust and loose material:** Remove from exposed substrates and edges.

566 Removing defective existing plaster

1. **Plaster for removal:** Detached, soft, friable, badly cracked, affected by efflorescence or otherwise damaged.
 - 1.1. **Hollow, detached areas:** Cut out to regular rectangular areas with straight edges.
2. **Stained plaster:** Square cut or slightly undercut.
3. **Removing defective plaster.** Cut back to a square, sound edge.
4. **Faults in substrate (structural deficiencies, damp, etc.):** Submit proposals.
5. **Cracks**
 - 5.1. **Fine hairline cracking/ crazing:** Leave.
 - 5.2. **Other cracks:** Cut out to a width of 75 mm (minimum).
6. **Dust and loose material:** Remove from exposed substrates and edges.

Backings/ beads/ joints - Not Used

Mouldings/ decorative plasterwork - Not Used

Internal plastering

710 Application generally

1. **Application of coatings:** Firmly and in one continuous operation between angles and joints. Achieve good adhesion.
2. **Appearance of finished surfaces:** Even and consistent. Free from rippling, hollows, ridges, cracks and crazing.
 - 2.1. **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.
3. **Drying out:** Prevent excessively rapid or localized drying out.

715 Flatness/ surface regularity

1. **Sudden irregularities:** Not permitted.

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

718 Junction of new plasterwork with existing

1. **New plasterwork:** Finish flush with original face of existing plasterwork to form a seamless junction.

720 Dubbing out

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

725 Undercoats generally

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

742 Thin coat plaster

1. **Preparation for plasters less than 2 mm thick:** Fill holes, scratches and voids with finishing plaster.

777 Smooth finish

1. **Appearance:** A tight, matt, smooth surface with no hollows, abrupt changes of level or trowel marks. Avoid water brush, excessive trowelling and over polishing.

External rendering - Not Used

Ω End of Section

M50

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

Types of covering

110 Smoothing and levelling underlay compounds

1. As per AHR Drawing MMU-RB-SS-43-001:
 - Allow for installing latex self levelling screed prior to installation of all new floor finishes. Screed to be Arditec NA by Ardex.
2. Tiles
 - 2.1. Standard: To BS EN 14041.
 - 2.2. Manufacturer: [Ardex Ltd – Flooring, Tiling & Screeding products](#)
 - 2.2.1. Contact details
 - 2.2.1.1. Address: Homefield Road
Haverhill
Suffolk
United Kingdom
CB9 8QP
 - 2.2.1.2. Telephone: +44 (0)1440 714939
 - 2.2.1.3. Web: ardex.co.uk
 - 2.2.1.4. Email: info@ardex.co.uk
 - 2.2.2. Product reference: [ARDITEC NA Ultra Rapid Levelling Compound](#)
 - 2.3. Material: Polymer modified Portland cement.
 - 2.4. Compressive Strength: 16 N/mm².
 - 2.5. Flexural strength: 5.5 N/mm².
 - 2.6. Primer: Not required.
 - 2.7. Coverage: Approximately 5 m² at 3 mm thick per unit.
 - 2.8. Reaction to fire: To EN 13813:2002, A2fl-s1.
 - 2.9. Application thickness: Feather edge to 30 mm.
 - 2.10. Mix: Mix supplied bag and bottle (no water needed).
 - 2.11. Standard: To EN 13813: CT-C12-F4.

130 Luxury Vinyl Tile Stone Effect

1. As per AHR Drawings, Luxury Vinyl Stone Effect carpet floor tiling to be supplied and installed to Internal Meeting Space and Cafe Space areas.

All works to be in accordance with manufacturer's instructions and product data sheets.

Range: Amalagam.

Code: 4113V.

Size: 500mm x 500mm.

Thickness: 5mm.

Slip: R9.

Col: Off White.

Quantity: 71 sqm.

Supplier: Shaw Contract.

Contact: Martine Speight.

M: 07772 615 369.

150A Woven Vinyl Product Textile - Code: Asteroid

1. As per AHR Drawings, Wood Vinyl Product Textile floor tiling to be supplied and installed to proposed area of works.
All works to be in accordance with manufacturer's instructions and product data sheets.

Range: Colourful.
Code: ASTEROID.
Size: Sheet role product.
Thickness: 5mm.
Col: Blush Pink.
Quantity: 65 sqm.

Supplier: 2tect2.
Contact: Jonathan Stone.
M: 07485251200.

150B Woven Vinyl Product Textile - Code: Morion Brown

1. As per AHR Drawings, Wood Vinyl Product Textile floor tiling to be supplied and installed to proposed area of works.
All works to be in accordance with manufacturer's instructions and product data sheets.

Range: Colourful.
Code: ASTEROID.
Size: Sheet role product.
Thickness: 5mm.
Col: Blush Pink.
Quantity: 65 sqm.

Supplier: 2tect2.
Contact: Jonathan Stone.
M: 07485251200.

General requirements

210 Workmanship generally

1. **Base condition after preparation:** Rigid, dry, sound, smooth and free from grease, dirt and other contaminants.
2. **Finished coverings:** Accurately fitted, tightly jointed, securely bonded, smooth and free from air bubbles, rippling, adhesive marks and stains.

330 Commencement

1. **Required condition of works prior to laying materials**
 - 1.1. Building is weathertight and well dried out.
 - 1.2. Wet trades have finished work.
 - 1.3. Paintwork is finished and dry.
 - 1.4. Conflicting overhead work is complete.
 - 1.5. Floor service outlets, duct covers and other fixtures around which materials are to be cut are fixed.
2. **Notification:** Submit not less than 48 hours before commencing laying.

340 Conditioning

1. **Prior to laying:** Condition materials by unpacking and separating in spaces where they are to be laid. Maintain resilient flooring rolls in an upright position. Unroll carpet and keep flat on a supporting surface.
2. **Conditioning time and temperature (minimum):** As recommended by manufacturer with time extended by a factor of two for materials stored or transported at a temperature of less than 10°C immediately prior to laying.

350 Environment

1. **Temperature and humidity:** Before, during and after laying, maintain approximately at levels which will prevail after building is occupied.
2. **Ventilation:** Before during and after laying, maintain adequate provision.

360 Floors with underfloor heating

1. **Commencement of laying:** Not before a period of 48 hours after heating has been turned off.
2. **Post laying start up of heating system:** Slowly return heating to its operative temperature not less than 48 hours after completing laying.

Preparing bases

410 New bases

1. **Suitability of bases and conditions within any area:** Commencement of laying of coverings will be taken as acceptance of suitability.

420 Existing bases

1. **Notification:** Before commencing work, confirm that existing bases will, after preparation, be suitable to receive coverings.
2. **Suitability of bases and conditions within any area:** Commencement of laying of coverings will be taken as acceptance of suitability.

470 Bases from which existing floor coverings have been removed

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

Laying coverings

610 Setting out tiles

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

620 Colour consistency

1. **Finished work in any one area/ room:** Free from banding or patchiness.

640 Adhesive fixing generally

1. **Adhesive type:** As specified, as recommended by covering/ underlay, manufacturer or as approved.
2. **Primer:** Type and usage as recommended by adhesive manufacturer.
3. **Application:** As necessary to achieve good bond.

4. **Finished surface:** Free from trowel ridges, high spots caused by particles on the substrate, and other irregularities.

650 Seams

1. **Patterns:** Matched.
2. **Joints:** Tight without gaps.

700 Loose laid carpet tiles

1. **Areas of adhered tiles:** Secure using double sided tape or peelable adhesive.
2. **Joints:** Butted.
 - 2.1. **Perimeter joints:** Accurately cut to match abutment and prevent movement.

720 Doorways

1. **Joint location:** On centre line of door leaf.

740 Transition strips

1. **Manufacturer:** [Gradus](#)
 - 1.1. **Contact details**
 - 1.1.1. **Address:** Chapel Mill
Park Green
Macclesfield
Cheshire
SK11 7LZ
 - 1.1.2. **Telephone:** [+44 \(0\)1625 428922](tel:+441625428922)
 - 1.1.3. **Web:** www.gradus.com
 - 1.1.4. **Email:** imail@gradus.com
 - 1.2. **Product reference:** ATT42/PBT12 by Gradus - Ramped transition strip as per AHR Drawing MMU-RB-SS-43-001.
2. **Material/ finish:** Top - aluminium with anodised metal finish / base – PVC-u as per manufacturer's standard.
3. **Fixing:** Secure with edge of covering gripped. Use matching fasteners where exposed to view

Completion - Not Used

Ω End of Section

M52

Decorative papers/ fabrics

Types of covering

110A Vinyl Backed Wallpaper, Code: 02G84

1. As per AHR Drawings, Vinyl Backed Wallpaper to be supplied and installed to proposed area of works. All works to be in accordance with manufacturer's instructions and product data sheets.

Range: MOIRE.
Col: Off White / White.
Code: 02G84.
Size: 137 wide.

Supplier: Muraspec.
Contact: Emma Bishop.
M: 07788 565300.

110B Vinyl Backed Wallpaper, Code: RB001

1. As per AHR Drawings, Vinyl Backed Wallpaper to be supplied and installed to proposed area of works. All works to be in accordance with manufacturer's instructions.

Range: Bespoke.
Code: RB001.
Size: TBC on site.
Col: Black & White.

Supplier: Agarstone.
Contact: Jonathan Stone.
M: 07485252100.

Generally

225 Wallpaper generally

1. Standards
 - 1.1. Finished wallpapers, wall vinyls and plastics wallcoverings: To BS EN 233.
 - 1.2. Wallcoverings for subsequent decoration: To BS EN 234.
 - 1.3. Heavy duty wallcoverings: To BS EN 259-1.
 - 1.4. Textile wallcoverings: To BS EN 266.

241 Environment

1. Conditions: During hanging and drying of linings/ coverings, maintain working area ambient temperature and humidity levels approximate to those proposed in service.

Preparation

310 Preparation generally

1. Preparation materials: Types recommended by their manufacturers and covering manufacturer for situation and substrate being prepared.
2. Substrates: Sufficiently dry in depth to suit covering to be hung.
3. Efflorescence salts: Remove.
4. Dirt, grease and oil: Remove. Give notice if contamination of substrates has occurred.

5. **Substrate irregularities:** Fill cracks, joints, holes and other depressions with stoppers/ fillers. Work well in and finish off flush with surface. Abrade to a smooth finish.
6. **Dust, particles and residues from abrasion:** Remove.

340 Coated substrates

1. **Removing coatings:** Do not damage substrate and adjacent surfaces or adversely affect subsequent coverings.
2. **Loose, flaking or otherwise defective areas:** Carefully remove to a firm edge.
3. **Water soluble coatings:** Completely remove.
4. **Significant rot, corrosion or other degradation of substrates:** If revealed, give notice.
5. **Retained coatings**
 - 5.1. Thoroughly clean to remove dirt, grease and contaminants.
 - 5.2. **Lead based coatings:** If discovered, give notice.
 - 5.3. Abrade gloss coated substrates to provide a key.
 - 5.4. Carry out tests for compatibility with adhesives.

380 Size/ sealer

1. **Absorbent substrates:** Apply one coat of a dilute solution of adhesive where recommended by covering manufacturer.

Hanging

420 Hanging generally

1. **Coatings on adjacent surfaces**
 - 1.1. Complete and dry before commencement of hanging coverings.
 - 1.2. **Efflorescence salts:** Ensure no recurrence.
2. **Sequence of hanging coverings**
 - 2.1. Apply to ceilings before walls.
 - 2.2. Commence adjacent to main source of natural light.
 - 2.3. From centre of feature and isolated walls.
3. **Surplus adhesive:** Carefully remove from face of coverings, adjacent surfaces and fittings whilst still wet.
4. **Completed coverings:** Securely adhered, smooth and free of air bubbles, wrinkles, gaps, tears, adhesive marks and stains. Joints truly vertical/ horizontal and straight.

480 Linings

1. **Type and weight:** To suit coverings and substrates.
2. **Hang lengths:** With neat butt joints; do not overlap.
3. **Drying period:** Leave for 24 hours before hanging coverings.

490 Coverings

1. **Selvedged coverings:** Trim to a true straight edge before hanging, unless overlap joints are recommended by manufacturer.
2. **Hanging lengths**
 - 2.1. **Wall coverings:** Vertical.
 - 2.2. **Ceiling coverings:** Parallel to main window wall.

500 Joints in coverings

1. **Butt joints:** Hang lengths with neat butt joints generally.
2. **Overlap joints:** Hang lengths with neat overlap joints only where recommended by covering manufacturer. Cut through joints when stable to a true straight edge, without damaging substrate, and bond joints.
3. **Cross joints:** Hang lengths in one piece generally. Cross joints are only permitted where single lengths are impractical.

520 Shading

1. **Matching:** Ensure colour consistency of adjacent lengths.
2. **Hanging lengths:** Use in sequence as cut from roll.
3. **Alternate lengths:** Do not reverse unless recommended by covering manufacturer.
4. **Shade variation:** Check after hanging first three lengths. If variation occurs, give notice before proceeding.

530 Pattern

1. **Patterned coverings:** Accurately align and match.
2. **Mismatches:** Anticipate and obtain approval for locations.

Ω End of Section

M60

Painting/clear finishing

Coating systems

110 Water-based finishing coats Type A

1. **Description:** As per AHR Drawings allow for applying 1no. Undercoat Dulux Trade Diamond Matt (thinned 10%) by 2no. Full coats Dulux Trade Diamond Matt. All works to be in accordance with manufacturer's instructions and product data sheets.

Redecoration to:

- All ceilings unless otherwise stated to be painted.
- Existing decorated plaster ceiling.
- Existing Decorated Dental Style Cornice and Decorated Coved Style Cornice.
- All skirting boards unless stated otherwise to be painted

Doors to be painted white where possible. All door architraves to be stained or painted to match doors.

2. **Manufacturer:** [Dulux Trade, brand of AkzoNobel](#)

- 2.1. **Contact details**

- 2.1.1. **Address:** AkzoNobel Decorative Paints
Wexham Road
Slough
Berkshire
SL2 5DS

- 2.1.2. **Telephone:** +44 (0)333 222 7070

- 2.1.3. **Web:** www.duluxtradepaintexpert.co.uk

- 2.1.4. **Email:** project.support@akzonobel.com

- 2.2. **Product reference:** [Dulux Trade Diamond Matt](#)

3. **Composition:** Acrylic copolymer.
4. **Sheen:** Matt.
5. **Colour:** Pure Brilliant White as per manufacturer's instructions.
6. **Form:** Liquid.
7. **Surfaces:** To areas of proposed works as per AHR Drawings
 - 7.1. **Preparation:** Ensure surfaces are clean and dry.
8. **Undercoats:** As per AHR Drawings and recommended by manufacturer, Dulux Trade Diamond Matt (thinned 10%)
 - 8.1. **Number of coats:** 1.
9. **Finishing coats:** Smooth.
 - 9.1. **Number of coats:** 2 full coats.

130 Dulux Trade Quick Dry Undercoat Type A

1. **Description:** As per AHR Drawing MMU-RB-SS-00-002, apply 1 no. Dulux Trade Quick Dry Undercoat (followed by 2no. Full coats Dulux Trade Diamond Satinwood) to Decorated Timber beams and Decorated arches. All works to be in accordance with manufacturer's instructions and product data sheets.
2. **Manufacturer:** [Dulux Trade, brand of AkzoNobel](#)
 - 2.1. **Contact details**

2.1.1. Address: AkzoNobel Decorative Paints
Wexham Road
Slough
Berkshire
SL2 5DS

2.1.2. Telephone: +44 (0)333 222 7070

2.1.3. Web: www.duluxtradepaintexpert.co.uk

2.1.4. Email: project.support@akzonobel.com

2.2. Product reference: [Dulux Trade Quick Dry Undercoat](#)

3. Composition: Acrylic copolymer.

4. Colour: TBC.

5. Form: Liquid.

6. Surfaces: Previously decorated.

6.1. Preparation: Ensure surfaces are clean and dry.

150 Decorated Timber beams and Decorated arches to be redecorated Type A

1. Description: As per AHR Drawing MMU-RB-SS-00-002, existing Decorated Timber beams and Decorated arches to be cleaned and to be redecorated applying 1 no. Dulux Trade Quick Dry Undercoat followed by 2no. Full coats Dulux Trade Diamond Satinwood. All works to be in accordance with manufacturer's instructions and product data sheets.

2. Manufacturer: [Dulux Trade, brand of AkzoNobel](#)

2.1. Contact details

2.1.1. Address: AkzoNobel Decorative Paints
Wexham Road
Slough
Berkshire
SL2 5DS

2.1.2. Telephone: +44 (0)333 222 7070

2.1.3. Web: www.duluxtradepaintexpert.co.uk

2.1.4. Email: project.support@akzonobel.com

2.2. Product reference: [Dulux Trade Diamond Satinwood](#).

3. Composition: Acrylic copolymer.

4. Sheen: Satin.

5. Colour: TBC.

6. Form: Liquid.

7. Surfaces: Decorated Timber beams and Decorated arches as per AHR Drawing MMU-RB-SS-00-002.

7.1. Preparation: Ensure surfaces are clean and dry.

8. Undercoats: As per AHR Drawing MMU-RB-SS-00-002, apply 1 no. Dulux Trade Quick Dry Undercoat (followed by 2no. Full coats Dulux Trade Diamond Satinwood).

8.1. Number of coats: 1.

9. Finishing coats: Smooth.

9.1. Number of coats: 2 full coats.

Generally

215 Handling and storage

1. Coating materials: Deliver in sealed containers, labelled clearly with brand name, type of material and manufacturer's batch number.

2. **Materials from more than one batch:** Store separately. Allocate to distinct parts or areas of the work.

220 Compatibility

1. **Coating materials selected by contractor**
 - 1.1. Recommended by their manufacturers for the particular surface and conditions of exposure.
 - 1.2. Compatible with each other.
 - 1.3. Compatible with and not inhibiting performance of preservative/fire-retardant pretreatments.

280 Protection

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

Preparation

400 Preparation generally

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

440 Previously coated surfaces generally

1. **Preparation:** In accordance with BS 6150, clause 11.5.
2. **Contaminated or hazardous surfaces:** Give notice of:
 - 2.1. Coatings suspected of containing lead.
 - 2.2. Substrates suspected of containing asbestos or other hazardous materials.
 - 2.3. Significant rot, corrosion or other degradation of substrates.
3. **Suspected existing hazardous materials:** Prepare risk assessments and method statements covering operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.

4. **Removing coatings:** Do not damage substrate and adjacent surfaces or adversely affect subsequent coatings.
5. **Loose, flaking or otherwise defective areas:** Carefully remove to a firm edge.
6. **Alkali affected coatings:** Completely remove.
7. **Retained coatings**
 - 7.1. Thoroughly clean to remove dirt, grease and contaminants.
 - 7.2. Gloss-coated surfaces: Provide key.
8. **Partly removed coatings**
 - 8.1. Additional preparatory coats: Apply to restore original coating thicknesses.
 - 8.2. Junctions: Provide flush surface.
9. **Completely stripped surfaces:** Prepare as for uncoated surfaces.

461 Previously coated wood

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

580 Uncoated plaster

1. **Nibs, trowel marks and plaster splashes:** Scrape off.
2. **Overtrowelled 'polished' areas:** Key lightly.

590 Uncoated plasterboard

1. **Depressions around fixings:** Fill with stoppers/ fillers

611 Wall coverings

1. **Retained wall coverings:** Check that they are in good condition and well adhered to substrate.
2. **Previously covered walls:** Wash down to remove paper residues, adhesive and size.

Application

711 Coating generally

1. **Application standard:** In accordance with BS 6150, clause 9.
2. **Conditions:** Maintain suitable temperature, humidity and air quality during application and drying.
3. **Surfaces:** Clean and dry at time of application.
4. **Thinning and intermixing of coatings:** Not permitted unless recommended by manufacturer.
5. **Overpainting:** Do not paint over intumescent strips or silicone mastics.
6. **Priming coats**
 - 6.1. **Thickness:** To suit surface porosity.
 - 6.2. **Application:** As soon as possible on same day as preparation is completed.
7. **Finish**
 - 7.1. Even, smooth and of uniform colour.
 - 7.2. Free from brush marks, sags, runs and other defects.
 - 7.3. Cut in neatly.
8. **Doors, opening windows and other moving parts:** Ease before coating and between coats.

720 Priming joinery

1. **Preservative treated timber:** Retreat cut surfaces with two flood coats of a suitable preservative before priming.
2. **End grain:** Coat liberally allow to soak in, and recoat.

730 Workshop coating of concealed joinery surfaces

1. **General:** Apply coatings to all surfaces of components.

Ω End of Section

N10

General fixtures/ furnishings/ equipment

Products

New furniture and equipment to Study Space

1. University are to order through direct all new furniture and equipment noted as per AHR Drawings.

125 Podium/Reception

1. As per AHR Drawing MMU-RB-SS-70-002, Contractor shall allow for supplying and installing new reception/podium. Podium to be formed using 75x75 softwood timber carcassing lined generally with 25mm thick hardwood. 38x50mm hardwood timber battens are to be fixed to face of podium. Podium to be finished with 50mm Stone effect laminate worktop. Allow for provide cable management grommets in locations shown in worktop and to also Heavy duty caster wheels with locking mechanism. Podium shall be made bespoke and final details to be confirmed by the Contractor.

Execution

720 Installation generally

1. Fixing and fasteners: As section Z20.

770 Trims

1. Lengths: Wherever possible, unjointed between angles or ends of runs.
2. Running joints: Where unavoidable, obtain approval of location and method of jointing.
3. Angle joints: Mitred.

Completion - Not Used

Ω End of Section

N12

Commercial catering fittings, furnishings and equipment

Products

360A Tea and Coffee Servery to new Cafe

1. As per AHR Drawing MMU-RB-SS-70-003, Contractor shall allow for supply and installing new Tea and Coffee Servery to be formed using 75x75 softwood timber carcassing lined generally with 25mm thick hardwood. 38x50mm hardwood timber battens are to be fixed to face of podium along with 25mm feature Stone laminate and hardwood stained crescent shape panel. Servery to be finished with 50mm Stone effect laminate worktop. Allow for provide cable management grommets in locations shown in worktop and to also Heavy duty caster wheels with locking mechanism. Cupboards are to be provided as shown complete with hinges, locks, and handles. Tea and Coffee Servery shall be made bespoke and final details to be confirmed by the Contractor.

360B Refreshment Servery

1. As per AHR Drawing MMU-RB-SS-70-003, Contractor shall allow for supply and installing new Refreshment Servery to be formed using 75x75 softwood timber carcassing lined generally with 25mm thick hardwood. 38x50mm hardwood timber battens are to be fixed to face of podium along with 25mm feature Stone laminate and hardwood stained crescent shape panel. Servery to be finished with 50mm Stone effect laminate worktop. Allow for provide cable management grommets in locations shown in worktop and to also Heavy duty caster wheels with locking mechanism. Cupboards are to be provided as shown complete with hinges, locks, and handles. Allow for the supply and install of counter top glazed refrigerated display with shelf and sliding doors. Refreshment Servery shall be made bespoke and final details to be confirmed by the Contractor.

Execution

620 Installation generally

1. Fixing and fasteners: As section Z20.

630 Installing equipment, units, appliances and worktops

1. General: Correctly positioned and aligned, stable and secure.

640 Services to equipment, units and appliances

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

650 Installing sinks, taps, traps and wastes

1. Water supply: To BS EN 806-1, -2, -3, -4 and -5 and BS 8558.
2. Taps
 - 2.1. Fixing: Secure, watertight seal with the appliance.
 - 2.2. Positioning: Hot tap to left of cold tap as viewed by the user of the appliance.
3. Wastes
 - 3.1. Bedding: Waterproof jointing compound.
 - 3.2. Fixing: With resilient washer between appliance and backnut.

670 Trims

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

Completion

910 General

1. **Doors and drawers:** Accurately aligned, not binding. Adjusted to ensure smooth operation.
2. **Ironmongery:** Checked, adjusted and lubricated to ensure correct functioning.

920 Equipment, units and appliances

1. **Test:** Ensure that all functions and features work correctly.
2. **Documentation:** Submit guarantees, instruction manuals, etc.

Ω End of Section

Z20

Fixings and adhesives

Products

310 Fasteners generally

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

320 Packings

1. **Materials:** Noncompressible, corrosion proof.
2. **Area of packings:** Sufficient to transfer loads.

340 Masonry fixings

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

350 Plugs

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

360 Anchors

1. **Types**
 - 1.1. **Expansion:** For use in substrate strong enough to resist forces generated by expansion of anchor.
 - 1.2. **Adhesive or chemical**
 - 1.2.1. For use in substrate where expansion of anchor would fracture substrate.
 - 1.2.2. For use in irregular substrate where expansion anchors cannot transfer load on anchor.
 - 1.3. **Cavity:** For use where the anchor is retained by toggles of the plug locking onto the inside face of the cavity.

370 Wood screws

1. **Type**
 - 1.1. Wood screws (traditional pattern).
 - 1.1.1. **Standard:** To BS 1210.
 - 1.2. Wood screws.
 - 1.2.1. **Pattern:** Parallel, fully threaded shank or twin thread types.
2. **Washers and screw cups:** Where required are to be of same material as screw.

390 Adhesives

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

Execution

610 Fixing generally

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

620 Fixing through finishes

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

650 Nailed timber fixing

1. **Penetration:** Drive fully in without splitting or crushing timber.
2. **Surfaces visible in completed work:** Punch nail heads below wrot surfaces.
3. **Nailed timber joints:** Two nails per joint (minimum), opposed skew driven.

660 Screw fixing

1. **Finished level of countersunk screw heads**
 - 1.1. **Exposed:** Flush with timber surface.
 - 1.2. **Concealed (holes filled or stopped):** Sink minimum 2 mm below surface.

670 Pelleted countersunk screw fixing

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

680 Plugged countersunk screw fixing

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

700 Applying adhesives

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

Ω End of Section

Z31

Powder coatings

To be read with preliminaries/ general conditions.

210 Working procedures

1. Comply with the follow following standards.
 - 1.1. Aluminium components: To BS 6496 or BS EN 12206-1.
 - 1.2. Steel components: To BS EN 13438.
 - 1.3. Safety standards: To British Coatings Federation 'Code of safe practice: Powder coating. Application of coating powders by electrostatic spraying'.
 - 1.4. Health and safety guidance: Health and Safety Executive 'Reducing risk associated with using coating powders - employers' web page.

220 Powder coating applicators

1. Applicator requirements
 - 1.1. Approved by powder coating manufacturer.
 - 1.2. Currently certified to BS EN ISO 9001.
 - 1.3. Comply with quality procedures, guarantee conditions, standards and tests required by powder coating manufacturer.
 - 1.4. Selected applicator: Submit details before commencement of powder coating including:
 - 1.4.1. Name and contact details.
 - 1.4.2. Details of accreditation schemes.

225 Guarantees

1. Powder coating manufacturer and applicator guarantees
 - 1.1. Submit sample copies before commencement of powder coating.
 - 1.2. Submit signed project specific copies on completion of work.

250 Component design

1. Condition of components to be powder coated
 - 1.1. To comply with relevant recommendations of BS 4479-1, -3, and -4.
 - 1.2. Of suitable size to fit plant capacity.
 - 1.3. Of suitable thickness to withstand oven curing.

310 Pretreatment of aluminium components

1. Condition of components to be pretreated
 - 1.1. Free from corrosion and damage.
 - 1.2. All welding and jointing completed and finish off as specified.
 - 1.3. Free from impurities including soil, grease and oil.
 - 1.4. Suitable for and compatible with the pretreatment process.
2. Conversion coating requirements
 - 2.1. Chromate system: To BS 6496 or BS EN 12206-1.
 - 2.2. Chromate-free system: To BS EN 12206-1. Submit details before using.
3. Rinsing requirements: Use demineralized water. Drain and dry.

320 Pretreatment of steel components

1. Condition of components to be pretreated
 - 1.1. Free from corrosion and damage.
 - 1.2. All welding and jointing completed and finish off as specified.
 - 1.3. Free from impurities including soil, grease and oil.
 - 1.4. Suitable for and compatible with the pretreatment process.
2. Conversion coating requirements: To BS EN 13438.
3. Rinsing requirements: Use demineralized water. Drain and dry.

430 Extent of powder coatings

1. Application: To visible component surfaces, and concealed surfaces requiring protection. Coated surfaces will be deemed 'significant surfaces' for relevant BS 6496 or BS EN 13438 performance requirements.

435 Application of powder coatings

1. Surfaces to receive powder coatings: Free from dust or powder deposits.
2. Powder colours: Obtain from one batch of one manufacturer.
3. Commencement of powder coating: To be continuous from pretreatment.
4. Components to be installed on site in order of application.
5. Jig points: Not visible on coated components.
6. Curing: Controlled to attain metal temperatures and hold periods recommended by powder coating manufacturer.
7. Stripping and recoating of components: Only acceptable by prior agreement of powder coating manufacturer. Stripping, pretreatment and powder coating are to be in accordance with manufacturer's requirements.
8. Overcoating of components: Not acceptable.

440 Performance and appearance of powder coatings

1. For aluminium components
 - 1.1. Standard: To BS 6496 or BS EN 12206-1.
2. For steel components
 - 2.1. Standard: To BS EN 13438.
3. Visual inspection after powder coating: Significant surface viewing distances to be as specified in the relevant Standard, unless specified otherwise.
4. Colour and gloss levels: To conform with approved samples.

450 Aluminium alloy fabrications

1. Units may be assembled
 - 1.1. Before powder coating.
 - 1.2. From components powder coated after cutting to size.
 - 1.3. Where approved, from components powder coated before cutting to size.
2. Exposure of uncoated background metal: Not acceptable.
3. Assembly sealants: Compatible with powder coatings. Obtain approval of colour if sealants are visible after fabrication.

460 Steel fabrications

1. Unit assembly: Wherever practical, before powder coating.

2. **Exposure of uncoated background metal:** Not acceptable.
3. **Assembly sealants:** Compatible with powder coatings. Obtain approval of colour if sealants are visible after fabrication.

470 Fixings

1. **Exposed metal fixings:** Powder coat together with components, or coat with matching repair paint system applied in accordance with the powder coating manufacturer's recommendations.

480 Damaged components – repair or replacement

1. **Before delivery to site:** Check all components for damage to powder coatings. Replace damaged components.
2. **Site damage:** Submit proposals for repair or replacement.

510 Protection

1. **Powder coated surfaces of components:** Protect from damage during handling and installation, or by subsequent site operations.
2. **Protective coverings must be**
 - 2.1. Resistant to weather conditions.
 - 2.2. Partially removable to suit building in and access to fixing points.
3. **Protective tapes in contact with powder coatings must be**
 - 3.1. Low tack, self adhesive and light in colour.
 - 3.2. Applied and removed in accordance with tape and powder coating manufacturers' recommendations. Do not use solvents to remove residues as these are detrimental to the coating.
4. **Inspection of protection:** Carry out monthly. Promptly repair any deterioration or deficiency.

535 Documentation

1. **Submit the following information for each batch of powder coated components**
 - 1.1. Supplier.
 - 1.2. Trade name.
 - 1.3. Colour.
 - 1.4. Type of powder.
 - 1.5. Method of application.
 - 1.6. Batch and reference number.
 - 1.7. Statutory requirements.
 - 1.8. Test certificates.
 - 1.9. Maintenance instructions.

540 Completion

1. **Protection:** Remove any protective coverings.
2. **Cleaning and maintenance of powder coatings:** Carry out in accordance with procedures detailed in powder coating manufacturer and applicator guarantees.

Ω End of Section



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