Levitt Bernstein People.Design

3467 - Alexandra Road Estate

Emitter and Heating Thermal Improvements

Number	3467-Architectural Specification
Revision	P02
Status	For Planning
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Contents

C42
Repairing/ renovating/ conserving concrete

Clauses

2 To be read with preliminaries/general conditions.

General

150 Concrete replacement repairs where fixings for redundant services are removed

1. Description: Repairs to make good holes where fixings for existing redundant services, covers, supports, etc. are removed.
2. Location: All locations where existing elements are removed as part of the works.
3. Scope of work: In accordance with Concrete Repair Trials Report (2007), and subject to approval by Conservation Officer.

160 Concrete infill to redundant vent holes from dwellings.

1. Description: Infill to redundant vent holes from dwellings.
2. Location: All locations where existing services are removed as part of the works.
3. Scope of work: In accordance with Concrete Repair Trials Report (2007), and subject to approval by Conservation Officer. Infill concrete should align with existing chamfered profile rather than making the area flush.

Products - Not Used

Execution

620 Reference samples

1. Location/ Size: Submit proposals.
    1.1. Sample A: Repairs to make good fixing holes where existing services fixings are removed.
    1.2. Sample B: Infill to redundant vent holes from one dwelling. Infill concrete should align with existing chamfered profile rather than making the area flush.
2. Trial type/ purpose: For approval by architect and Conservation Officer.

630 Cleaning concrete surfaces

1. Extent: As required to reveal surface condition and aid investigation work only. Minimize disruption to concrete surfaces and materials. Leave no harmful residual cleaning agents.

Completion

710 Record of location/ extent of repairs

1. Repair record forms
    1.1. Content: Unique repair reference number for cross-referencing to record drawings; details of repair including dimensions and explanatory sketches; agreements and special requirements.

2. Record drawings: Required.

Ω End of Section

H41
Glass fibre reinforced plastics cladding/ features

Types of cladding/ features

130 Repairs to GRP purpose made features

1. Description: Repair works to glass-fibre plant housings on roofs
2. GRP components
    2.1. Works required: All existing damage to housing to be repaired to match existing. Locks and ironmongery to be checked for functionality and replaced where necessary.
    2.2. Finish: To match existing.
    2.3. Colour: To match existing.
    2.4. Fire rating: Not required.
3. Fixings and fasteners: To match existing.
    3.1. Ironmongery: To match existing. Locks to use FB keys.
4. Accessories/ Other requirements: Complete repairs to one plant housing for approval, prior to commencing further works. Reference housing should be selected as "most damaged" example, and should include repairs to lock.

Design/ performance requirements

220 Weather resistance

1. Requirement: Weathertight, with full allowance made for deflections and other movements.

270 Colour fastness/ appearance of GRP

1. Colour fastness of pigments: Not less than standard 6 when measured to BS 1006:B01C:LFS6.
    1.1. Evidence of compliance: Submit.

275 Colour fastness/ appearance samples

1. Weathered samples: If available, submit naturally weathered samples, otherwise submit artificially weathered samples.
2. Naturally weathered samples
    2.1. Pigments and resins: As proposed GRP.
    2.2. Age: Not less than two years.
    2.3. Action: Submit with new unweathered control samples.
3. Artificially weathered samples
    3.1. Pigments, resins and gel coat: As proposed GRP.
    3.2. Test method: Accelerated weatherometer subjecting samples to moisture and ultraviolet light.
    3.3. Duration: Not less than 1500 hours.
    3.4. Action: Submit with new unweathered control samples.

Manufacture

410 Quality of work

1. Manufacture: Compliant with design and performance requirements.
    1.1. Materials: Appropriate and compatible.
    1.2. Workmanship: Appropriate and in accordance with manufacturers' recommendations.
2. Resins: Used as supplied and not adulterated.
3. Fillers and admixtures: Submit proposals.
4. Standard of finish: Appropriate to end use and position in building.
    4.1. Prohibited blemishes: Including, but not limited to, wrinkling, spotting, striations, fibre patterning, fish eyes, blisters, crazing, cracking, dry patches and uneven or inconsistent colour.

450 Gel coats to external surfaces

1. Mixing: Resins, pigments and fillers thoroughly mixed.
2. Batching: All units of one colour from single batch of resin/ additive mix.
3. Nominal overall thickness: 500 micrometres.
    3.1. Limits for single gel coating: No reading less than 400 micrometres nor more than 600 micrometres.
    3.2. Limits for double gel coating: Submit proposals for coat thickness limits based on resin manufacturer's recommendations.
    3.3. Gel coat with embedded surface tissue: Submit proposals for coat thickness limits based on resin manufacturer's recommendations.
4. Checking wet film thickness: All units checked in accordance with BS EN ISO 2808, four readings per m² per coat over external surface area.

460 Laminating

1. Glass fibre content: Not less than 900 g/m² of glass fibre, in not less than two layers to each GRP skin.
2. Reinforcement distribution
    2.1. Random reinforcement: Distributed uniformly.
    2.2. Non random reinforcement: Correctly positioned and aligned.
3. Layering of woven fabric reinforcement: Layered with chopped strand mat on both sides.
4. Resin:glass fibre ratio: Not less than 2:1, higher as appropriate, with glass fully wetted out by resin.
5. Layer bonding: Good overall bond between gel coats and layers of laminate.
6. Consolidation of GRP: Well consolidated and free from air voids.

470 Bonding of constituents

1. Resin layers: Good overall bond between gel coats and layers of laminate.
2. Additional components: Core materials, ties, ribs, fixings and accessories fully bonded to GRP skins over full contact surface area.

490 Sealing of units

1. Flow coat: Apply to all surfaces of finished units which are not gel coated.

2. Cut edges and holes: Seal to avoid penetration of moisture into glass fibres.

500 Curing

1. Initial curing period at 20°C: 24 hours.
2. Distortion during curing: Prevent.

505 Metal powder finish

1. Polishing: Remove an even film of resin to ensure natural patination of the whole exposed surface.

510 Hardness testing

1. Standard: To BS EN 59.
2. Timing: After curing.
3. Extent: One test for each 1 m² of external surface area, not less than 2 tests per unit. The number of measurements shall be such thats the average result has a standard deviation of
4. Barcol hardness at ambient temperature: Not less than 30.

Installation

680 Cleaning down

1. General: Return to site at completion or when instructed and thoroughly clean down the entire area of the GRP work. Cleaning agents for the purpose must be approved by the GRP manufacturer.

Ω End of Section

L10
Windows/ rooflights/ screens/ louvres

General

10 To be read with Thermal Improvements Options report.

50 Existing approved reference flats

1. New works should match the completed and approved works within the designated reference flats in terms of detail and quality of workmanship. Where proposed details cannot be achieved due to site conditions, alternative solutions should be agreed with the architect and Conservation Officer before proceeding.
2. Designated reference flats:
   2.1. Type A3: Flat 26A Rowley Way
   2.2. Type B3: Flat 46A Rowley Way

60 Reference flats to be completed for approval

1. Procedure
   1.1. Survey existing windows in advance of procuring materials.
   Note that each instance of each window type may not have equal dimensions, so it is essential that every instance is accurately surveyed to ensure the correct sizes of glazed units are procured.
   1.2. Finalise component details.
   1.3. Complete works to all windows within the designated reference flats for approval by design team and approving authorities, as described below.
   1.4. Obtain approval of appearance and quality for one of each completed dwelling type before proceeding with manufacture and/or installation in other dwellings.
2. Designated reference flats:
   2.1. Type A1: Flat 51E Rowley Way
   2.2. Type A2: Flat 117J Rowley Way
   2.3. Type A3: TBC
   2.4. Type B2: Flat 95A Rowley Way
   2.5. Type B3: TBC
   2.6. Type C4: Flat 13A Ainsworth Way

110 Evidence of performance

1. Certification: Provide independently certified evidence that all incorporated components comply with specified performance requirements.

115 Timber procurement

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

2. Documentation: Provide either:
   2.1. Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied.
   2.2. Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood based products.
3. Certification scheme:
   - Forest Stewardship Council (FSC)
   - UK Timber Procurement Policy Category A evidence certification scheme
   - Programme for the Endorsement of Forest Certification (PEFC)

120 Preconstruction survey

1. Procedure: Before starting work on any/ all timber fenestration items, fully survey and record condition, take site dimensions, record on shop drawings and use to ensure accurate fabrication of glazed units and any new timber elements that may be required (see clause 270, item 4).
   Dimensions shown on drawings are nominal, and subject to confirmation on site.
   Note that each instance of each window type may not have equal dimensions, so it is essential that every instance is accurately surveyed to ensure the correct sizes of glazed units are procured.
2. Designated items: All fenestration being refurbished, repaired or replaced.
3. Primary support structure: Carry out survey sufficient to verify that required accuracy and security of erection can be achieved.
4. Timing: Before fabrication.

150 Assessing condition of existing timber windows

1. Existing timber to be retained where possible.
2. Limited areas of decay should be repaired locally, where the integrity of the timber can be maintained.
   Small areas of decay to be repaired using a suitable epoxy filler, suitable for external use.
   Larger areas of decay to be cut out, with new timber pieced in.
3. Where existing timber has decayed and/ or warped beyond reasonable retention, new timber should be used, to the original design and profiles.
   Timber to be replaced to be agreed with architect prior to commencement.
4. New timber to be as clause 270, item 4.1.
5. Submit samples of new timber profiles and details of all products/ materials to be used for approval prior to commencement.
6. Workmanship benchmarks for repairs and new elements to be agreed with architect prior to commencement of further works.

Products

270 Refurbishment of Timber Windows - Single Glazed Windows Generally

1. Manufacturer: Refurbishment works to existing windows to be undertaken by a firm currently registered under a third party quality assurance scheme.
2. Exposure category to BS 6375-1/ Design wind load: Calculate in accordance with BS 6375-1 where necessary.
3. Operation and strength characteristics: To BS 6375-2.

4. Timber: Existing timber to be retained where possible.
   Where existing timber has decayed and/ or warped beyond reasonable retention, new timber should be used, to the original design and profiles.
   4.1. Species: Douglas Fir to match existing, and to BS EN 942.
   Submit sample for approval prior to commencing work.
   4.2. Appearance class: J2 for glazing beads, drip mouldings etc. J10 or better for all other members. Finger jointing and knots on arrises not permitted where exposed to view.
   4.3. Moisture content on delivery: 12-19%.
5. Preservative treatment: Organic solvent as WPA Commodity Specification C5.
   Desired service life 30 years.
6. Finish as delivered:
   6.1. External: Sand down and refinish.
   Johnston's Classic Matt Woodstain.
   Colour to be 50/50 mix of "Ebony" and "Mahogany".
   Number of coats as manufacturer's recommendations.
   6.2. Internal: Make good any damage to finishes caused by these works as existing condition in each instance.
7. Dimensional survey: Survey existing windows in advance of procuring materials.
   Dimensions shown on drawings are nominal, and subject to confirmation on site.
   Note that each instance of each window type may not have equal dimensions, so it is essential that every instance is accurately surveyed to ensure the correct sizes of glazed units are procured.
8. Glazing details:
   - Carefully remove internal timber glazing beads and retain for re-use.
   - Remove existing glazing for disposal or recycling.
   - Clean up glazing rebates of all residues of previous bedding compounds and /or tapes.
   - Prepare and carry out timber repairs as needed to the frame(s) to accept new glass.
   - Install new glazing in accordance with manufacturer's instructions. Any warp or twist in the frames should be checked and corrected prior to glazing.
   - Rotten frame sills to be cut out and a section used for pattern made from Douglas Fir. Inspect waterproofing below and make good as necessary.

   8.1. Glazing details - Sliding doors:
      - Take off sliding door from runners and inspect.
      - Service and/or replace runners & rollers as required.
      - Sills to sliding doors to have the existing roller track refurbished and refitted prior to installing on site.
      - Rotten frame sills to be cut out and a section used for pattern made from Douglas Fir. The new sill to have the existing roller track refitted prior to installing on site. Inspect waterproofing below and make good as necessary.
      - Leadwork over running gear should be cleaned back to bare metal, and fresh patination oil applied. Existing lead should be retained unless significantly damaged. Any dents should be made good as far as practicable. Cracked or damaged lead should be replaced.

   8.2. Glazing typically:
      - Fixed and opening windows and doors to have LandVac 8.3mm Vacuum Insulated Glazing (VIG) to replace current single glazing.
      - Safety glass should be installed where required by Approved document K.

8.3. Glazing to wired glass windows:

- Existing wired glass should be retained unless damaged / replaced to match existing where necessary.
- Where new glass is provided, safety glass should be installed where required by Approved document K.

8.4. Beading:

- For LandVac installation the existing glazing beads should be re-used once cleaned up wherever possible.
- Where new beads are required these should be Douglas Fir to match existing.
- Allow for black silicone bead between new glass and retained beading to accommodate reduced glass thickness while not altering visible face detail.
- Metal bead cover trims to be retained, cleaned and reinstated.

8.5. Plywood openable vents to stable doors:

- Existing plywood vent (including ironmongery) to be retained unless damaged.
- Damaged vents/ components should be replaced with new to match existing, using WBP plywood.

8.6. Finishing:

- Refer to item 6, above.

9. Ironmongery/ Accessories:

- Service and/or replace door furniture, locks etc. as clause 700.

9.1. Trickle Vent:

- Existing vent holes to be retained.
- Fit sliding "hit and miss" vent covers to existing vent holes.

9.2. Weather Seals:

- Inspect and replace existing weather seals to opening lights as necessary to ensure the seals make good contact with the frame to all sides.
- Where original seals are missing, new seals should be provided.
- All brush seals to be renewed to full perimeter of sliding doors. No existing brush seals to be retained.

10. Fixing:

- Where possible, existing windows should not be removed, and should be refurbished in-situ.
- Where existing windows cannot be repaired, new windows should be screw fixed within existing openings to the original fixing detail.

275 Refurbishment of Timber Windows - Secondary Glazing to Fixed Wired Glass Windows

1. Manufacturer: Submit proposals for a firm currently registered under a third party quality assurance scheme.
2. Exposure category to BS 6375-1/ Design wind load: N/A
3. Operation and strength characteristics: To BS 6375-2.
4. Finish as delivered: Powder coated aluminium.
   Colour to be RAL9005 (Black).
5. Glazing details:

5.1. Glazing:

- 4mm toughened glass to BS 6206.

5.2. Beading:

- Aluminium angle as perimeter frame, not larger than 20mm x 16mm.
- Opening vent to be set within perimeter frame, held in place with magnetic catch / seal.
- No additional subframe should be provided.

6. Secondary glazing manufacturer:
   - Submit proposals, for approval by design team and approving authorities.
7. Ironmongery/ Accessories:
   - Magnetic catches.
   - No visible ironmongery.
8. Fixing:
   - Fixing of secondary glazing to be as manufacturer's recommendations and agreed with Conservation Officer.
   - Set within window frame, but outside beading.
   - Refer to details.
9. Existing windows:
   - Existing windows to be protected and refurbished as clause 270.

280 Refurbishment of Timber Windows - Plywood Side-hung Openable Vent

1. Manufacturer: Refer to clause 270.
2. Exposure category to BS 6375-1/ Design wind load: Refer to clause 270.
3. Operation and strength characteristics: Refer to clause 270.
4. Timber: Frames/ beads as clause 270.
   Plywood (suitable for exterior use) to match existing.
5. Preservative treatment: Refer to clause 270.
6. Finish as delivered: Refer to clause 270.
7. Glazing details:
   - Existing plywood vent (including ironmongery) to be retained unless damaged.
   - Damaged vents/ components should be replaced with new to match existing, using WBP plywood as above and in accordance with clause 270.
8. New vent:
   - Install new WBP plywood vent within depth of existing window framing.
   - New vent to match existing detail, opening inwards.
   - New ironmongery to match existing.
   - Refer also to drawings.
9. Ironmongery/ Accessories:
   - Refer to clause 270.

   9.1. Trickle Vent:
   - Not applicable.

   9.2. Weather Seals:
   - Existing seals to be checked/ replaced as clause 270.
   - New seals to be provided to new vent to match existing.

285 Refurbishment of Timber Windows - Plywood Fixed Panel

1. Manufacturer: Refer to clause 270.
2. Exposure category to BS 6375-1/ Design wind load: Refer to clause 270.
3. Operation and strength characteristics: Refer to clause 270.
4. Timber: Frames/ beads as clause 270.
   Plywood (suitable for exterior use) to match existing.
5. Preservative treatment: Refer to clause 270.
6. Finish as delivered: Refer to clause 270.
7. Glazing details:
   - Existing plywood panel to be retained unless damaged.
   - Damaged panels should be replaced with new to match existing, using WBP plywood as above and in accordance with clause 270.
8. New Panel and Insulation (where required):
   - Install new WBP plywood panel to align to internal face of existing window framing.
   - New panel to match existing detail, facing inwards.
   - The void between the two fixed panels should be fully filled with Superglass Superwall 32 mineral fibre insulation.
   - Refer also to drawings.
9. Ironmongery/ Accessories:
   - Not applicable.
10. Fixing:
    - Glued, pinned + punched and filled.

290 Refurbishment of Timber Windows - Replacement of Louvred Lights

1. Manufacturer: Refer to clause 270.
2. Exposure category to BS 6375-1/ Design wind load: Refer to clause 270.
3. Operation and strength characteristics: Refer to clause 270.
4. Timber: Refer to clause 270.
5. Preservative treatment: Refer to clause 270.
6. Finish as delivered: Refer to clause 270.
7. Glazing details:
   - Remove existing louvred light (including metal framing) for disposal or recycling.
   - Install new bottom hung inward opening light using Douglas Fir as clause 270.
   - Detailing to match existing.
   - Refer also to drawings.
8. Ironmongery/ Accessories:
   - Pole operated loop catch, finish to match existing.
   - Restrictor, finish to match existing. Maximum opening angle 30 degrees from vertical.
   - Hinges to match existing.

   8.1. Trickle Vent:
   - Not applicable.

   8.2. Weather Seals:
   - New seals to be provided to new vent to match existing.

300 Timber plinths

1. Timber: Refer to clause 270.
2. Finish: Refer to clause 270.
3. Works to concrete below / within plinth:
   3.1. Carefully remove existing timber plinth cladding, and retain for reinstatement.
   3.2. Protect existing window and other building fabric.
   3.3. Break out concrete upstand to structural engineers specification.
4. Reinstate timber framing to plinth, and line void with Superglass Superwall 32 mineral fibre insulation.
5. Install trench heater to MEP engineers specification.
   Setting out to align with original joint lines in timber cladding. Refer to details.
6. Reinstate timber cladding adjacent to trench heater, and renew finishes as clause 270.

340 Refurbishment of Aluminium Windows

1. Exposure category to BS 6375-1/ Design wind load: Calculate in accordance with BS 6375-1 where necessary.
2. Glazing details:
   - Existing sash windows in good or reparable condition to be serviced, cleaned and reoiled.
   - Undamaged glass to be retained unless non-safety glass is installed in critical locations as Approved Document K.
   - Damaged glass to be replaced to match existing.
   - New glass should be safety glass where required by Approved Document K.
   - Sashes damaged beyond servicing to be replaced to match existing.
   - Where any sash in one window assembly is replaced, all sashes in that window should be replaced to match, with the good/ reparable one(s) retained for future replacement of others.
   - Note that external scaffolding (adjacent railway lines) may be required for this work if the work cannot be completed from within the dwellings. The requirement for scaffolding should be determined during the pilot works.
   - Openable sashes within 1100mm of finished floor level should be restricted to max 100mm opening.
3. Secondary Glazing:
   - Existing secondary glazing to be serviced and cleaned.
   - Undamaged frame/ glass to be retained.
   - Damaged frame/ glass to be replaced to match existing.
   - Missing secondary glazing within bedrooms should be replaced, to original detail.
   - Missing secondary glazing within kitchens should not be replaced.
4. Ironmongery/ Accessories:
   - Service and/or replace door furniture, locks etc. as clause 700.
   - Damaged catches, restrictors, etc. should be repaired/ replaced.
   - Ensure windows meet Approved Document K requirements for protection from falling from height.

   4.1. Trickle Vent:
      - Not applicable.

4.2. Weather Seals:

- Inspect and replace existing weather seals to opening lights as necessary to ensure the seals make good contact with the frame.

5. Fixing:
    - Where possible, existing windows should not be removed, and should be refurbished in-situ.
    - Where existing windows cannot be repaired, new windows should be screw fixed within existing openings.

400 Ironmongery

1. Refurbishment: Where possible, all existing ironmongery should be retained, refurbished, cleaned, reoiled and reused in its original location.
2. Replacement/ new: Where existing ironmongery cannot be refurbished, or for new elements, new ironmongery should be equal in appearance, material and performance to the original.
3. Submit proposals with sample for approval by Architect and Conservation Officer.
4. The following ironmongery is deemed to be acceptable without further approval.
   All items supplied by Comyn Ching Architectural Hardware Ltd.:
    4.1. M10 x 30mm Plain BZP Shoulderless Thumb Screw.
    4.2. M10 x 35mm Plain BZP Shoulderless Thumb Screw.
    4.3. M10 x 40mm Plain BZP Shoulderless Thumb Screw.
    4.4. SS "easy clean" window friction stay hinge. 13mm stack 16 inch 400mm side hung.
    4.5. SCP V1007LCK Locking Night Vent C/Fastener.
    4.6. Mort/Hook Plate Ball End Casement Fastener SCP.
    4.7. SCP Mortice Door Security Bolt 60mm.
    4.8. Extra Long Key T/S Rackbolts.
    4.9. 01150x19mm SSS B/T Pull Handle.
    4.10. Sat Chrome Long Arm Hook.
    4.11. 2440x25mm Dia Dowel Pole.
    4.12. 1828x32mm NP Continuous Hinge.
    4.13. 1828x38mm Electro Brass Continuous Hinge.
    4.14. Balances Tube length 16" Strength 2 + Feet.
    4.15. Balances Tube length 18" Strength 2 + Feet.
    4.16. Catch 1 Black catch with packer.
    4.17. Locking Quadrant Stays - 155mm Length - 114mm Throw - Satin Nickel.

650 Metal louvres

1. Manufacturer: Submit proposals.
    1.1. Product reference: Submit proposals.
2. Material: Steel.
    2.1. Finish as delivered: Polyester powder-coated. Colour 18C39 to BS4800 (to be confirmed and approved by Conservation Officer)
3. Fire resistance rating: Not applicable.
4. Number of louvre banks: Refer to drawings.
5. Louvre blade pitch and angle: Pitch: 100 mm

6. Blanking panels: Not required.
7. Accessories/ Other requirements:
    - Access door.
    - Stainless steel bird mesh.
    - Refer to drawings.
8. Fixing:
    - Louvres and support framing to be fully demountable for plant access.
    - No visible fixings when viewed from exterior side.
9. Approval: Submit fabrication drawings for all locations for approval by architect and Conservation Officer prior to fabrication.

660 Mesh screen protection to mains water pipework at street level, Block A North side.

1. Perforated steel mesh cladding, fixed to steel frame to provide protection to incoming water mains.
2. Located at, and mechanically fixed to existing spine wall columns to Block A North side.
3. Cladding to be galvanised and painted, detail and finish to match existing balustrade infills.
4. Submit fabrication drawings for approval by architect and Conservation Officer prior to fabrication.

Execution

710 Protection of components

1. General: Do not deliver to site components that cannot be installed immediately or placed in clean, dry floored and covered storage.
2. Stored components: Stack vertical or near vertical on level bearers, separated with spacers to prevent damage by and to projecting ironmongery, beads, etc.

730 Priming/ sealing

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

810 Sealant joints

1. Sealant
    1.1. Manufacturer: As recommended by specialist.
        1.1.1. Product reference: As recommended by specialist.
    1.2. Colour: To match existing.
    1.3. Application: Finish triangular fillets to a flat or slightly convex profile.

820 Ironmongery

1. Fixing: In accordance with any third party certification conditions applicable. Assemble and fix carefully and accurately using fasteners with matching finish supplied by ironmongery manufacturer. Do not damage ironmongery and adjacent surfaces.
2. Checking/ Adjusting/ Lubricating: Carry out at Completion and ensure correct functioning.

Ω End of Section

M60
Painting/clear finishing

Clauses - Not Used

Coating systems

130 Gloss paint

1. Description: External painted metalwork:
    - All handrails and balustrades to communal and roof areas
    - All service support framing at roof level
    - All handrails and balustrades to private terraces
    - Decorative fins to lift cores, block A
2. Manufacturer: As defined in the Heritage Partnership Agreement
    2.1. Product reference: As defined in the Heritage Partnership Agreement
    2.2. Colour reference (blue): 18C39 to BS4800. Sample area to be prepared for approval by Conservation Officer.
    2.3. Colour reference (red): 04E53 to BS4800. Sample area to be prepared for approval by Conservation Officer.
3. Surfaces: Previously decorated.
    3.1. Preparation: Remove all loose and defective coatings.
4. Initial coats: As recommended by manufacturer.
    4.1. Number of coats: As recommended by manufacturer.
5. Undercoats: As recommended by manufacturer.
    5.1. Number of coats: As recommended by manufacturer.
6. Finishing coats: As recommended by manufacturer.
    6.1. Number of coats: As recommended by manufacturer.

140 Paint to new internal joinery

1. Description: Finishes to new skirtings: Refer to "Better Homes" specification.

160 Decorative woodstain/ varnish/ preservative

1. Description: Finishes to timber windows.
Refer to section L10.

Generally

210 Coating materials

1. Selected manufacturers: Submit names before commencement of coating work.

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.

300 Control samples

1. Sample areas of finished work: Carry out, including preparation, as follows:
2. M60/ 130. One complete area in each colour..
3. Approval of appearance: Obtain before commencement of general coating work.

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. Dirt, grease and oil: Remove. Give notice if contamination of surfaces/ substrates has occurred.
8. Surface irregularities: Remove.
9. Joints, cracks, holes and other depressions: Fill flush with surface, to provide smooth finish.
10. Dust, particles and residues from preparation: Remove and dispose of safely.
11. Water based stoppers and fillers
    11.1. Apply before priming unless recommended otherwise by manufacturer.
    11.2. If applied after priming: Patch prime.
12. Oil based stoppers and fillers: Apply after priming.

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.

490 Previously coated steel

1. Defective paintwork: Remove to leave a firm edge and clean bright metal.
2. Sound paintwork: Provide key for subsequent coats.
3. Corrosion and loose scale: Take back to bare metal.
4. Residual rust: Treat with a proprietary removal solution.
5. Bare metal: Apply primer as soon as possible.
6. Remaining areas: Degrease.

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. Priming coats
   5.1. Thickness: To suit surface porosity.
   5.2. Application: As soon as possible on same day as preparation is completed.
6. Finish
   6.1. Even, smooth and of uniform colour.
   6.2. Free from brush marks, sags, runs and other defects.
   6.3. Cut in neatly.

800 Glazing

1. Etched, sand blasted and ground glass: Treat or mask edges before coating to protect from contamination by oily constituents of coating materials.

Ω End of Section

P12
Fire-stopping systems

General

2 To be read with Fire Stopping Specialist's drawings and specification.

130 Fire-stopping system to individual services penetrations

1. Description: Through walls / floors / risers.
2. Fire resistance: As advised by specialist, and not less than REI 60.
3. Penetration seal: As recommended by specialist.
   3.1. Size: To match wall thickness and to suit existing openings.
4. Gap sealer: As recommended by specialist.
5. Capping sealant: As recommended by specialist.

140 Fire-stopping system to multiple services penetrations

1. Description: Through walls / floors / risers.
2. Fire resistance: As advised by specialist, and not less than REI 60.
3. Board barrier
   3.1. Material: As recommended by specialist.
      3.1.1. Thickness: As recommended by specialist.
   3.2. Framing: As manufacturer's recommendations. Non-combustible.
4. Gap sealer: As recommended by specialist.
5. Capping sealant: As recommended by specialist.

150 Loose fire-stopping

1. Description: Through walls / partitions / floors / risers.
2. Fire resistance: As advised by specialist, and not less than REI 60.
3. Penetration seal: As recommended by specialist.
   3.1. Size: To match wall thickness and to suit existing openings.

160 Linear gap sealing

1. Description: Through walls / partitions / floors / risers.
2. Fire resistance: As advised by specialist, and not less than REI 60.
3. Gap width or height (nominal): To match wall thickness and to suit existing openings.
4. Gap filler: As recommended by specialist.
5. Capping sealant: As recommended by specialist.

System performance

210 Design

1. Design: Complete the design of the fire-stopping system, in accordance with the recommendations of the product manufacturers' literature and test data, and the ASFP guide "Firestopping of Service Penetrations - Best Practice in Design and Installation".

2. Proposals: Submit drawings, technical information, calculations and manufacturers' literature.
3. Existing gas installations: Where new fire stopping has the potential to limit ventilation for existing gas installations, seek guidance from MEP engineer.

220 Locations

1. Fire stopping should be installed in accordance with specialist's recommendations.
2. The following locations should be fire stopped:
   2.1. Service penetrations through walls into service risers.
   2.2. Service penetrations through external walls, floors or roofs.
   2.3. Service penetrations through walls into under-crofts, voids, garages or landlord areas.
   2.4. At the base and head of service risers at compartment floor slab level.
   2.5. Apertures, redundant chasing for services or other recesses in fabric which serve to compromise fire performance.
   2.6. Openings (including service penetrations) in dividing walls between garages, subject to review by gas engineer where gas pipes are present.
   2.7. Further locations as identified by specialist survey.
3. Where the installation of fire stopping would visibly affect the appearance of a finished element, the works should be agreed with the Conservation Officer and Historic England.

230 Protection against rodents or other pests

1. Where any element of fire stopping is installed in any location which has the potential to be damaged by rodents or other pests, suitable protection should be provided to prevent this, and ensure that the integrity of the fire stopping will be maintained.

240 Fire performance

1. Description: Service penetrations as clauses 130 - 160, above.
2. Resistance to fire: As advised by specialist, and not less than REI 60.
3. Reaction to fire: To BS EN 13501-1, Class A1.
4. Smoke resistance
   4.1. Air leakage rate (maximum): 3 $m^3/m^2 \cdot hr$.

250 Recording of works

1. Full and detailed records of the original condition and all completed works should be made, as required by the Building Safety Bill.
2. Drawn and photographic records should be specific to each location and not by unit type.
3. Records to be submitted to the client, in a format defined by them prior to commencement.

260 Design life

1. Effective design life: Minimum 30 years.

Products

305 Product certification

1. Certification: For products specified generically, submit evidence of compliance with the specification.
2. Acceptable evidence: Third-party certification or Agrément certificate.

310 Boards

1. Description: Calcium silicate fibre reinforced board.
2. Manufacturer: Submit proposals for approval by specialist.
   2.1. Product reference: Submit proposals for approval by specialist.

330 Flexible intumescent gap sealer

1. Manufacturer: Submit proposals for approval by specialist.
   1.1. Product reference: Submit proposals for approval by specialist.
2. Strip width: Wider than joint width.
3. Approval: Third-party certification.

335 Intumescent foam

1. Manufacturer: Submit proposals for approval by specialist.
   1.1. Product reference: Submit proposals for approval by specialist.

338 Intumescent mastic

1. Manufacturer: Submit proposals for approval by specialist.
   1.1. Product reference: Submit proposals for approval by specialist.

340 Intumescent mortar

1. Manufacturer: Submit proposals for approval by specialist.
   1.1. Product reference: Submit proposals for approval by specialist.

342 Fire-resisting mortar

1. Manufacturer: Submit proposals for approval by specialist.
   1.1. Product reference: Submit proposals for approval by specialist.

345 Intumescent pillows

1. Manufacturer: Submit proposals for approval by specialist.
   1.1. Product reference: Submit proposals for approval by specialist.
2. Composition: Sealed polyethylene bags containing graphite and vermiculite granules treated with fire activated chemicals.
3. Integral reinforced eyelets: Required.
4. Linking cable: Non-corrosive cotton-coated wire.

350 Intumescent putty

1. Manufacturer: Submit proposals for approval by specialist.
   1.1. Product reference: Submit proposals for approval by specialist.

360 Mineral wool rigid batts

1. Standard: To BS EN 13162.
2. Surface treatment: Ablative coating.
3. Manufacturer: Submit proposals for approval by specialist.
   3.1. Product reference: Submit proposals for approval by specialist.

370 Pipe collar

1. Type: Insulated wrap pipe collar.
2. Manufacturer: Submit proposals for approval by specialist.
   2.1. Product reference: Submit proposals for approval by specialist.

385 Sealant backing material

1. Manufacturer: Submit proposals for approval by specialist.
   1.1. Product reference: Submit proposals for approval by specialist.

390 Sealant

1. Type: Fire-resisting silicone.
2. Manufacturer: Submit proposals for approval by specialist.
   2.1. Product reference: Submit proposals for approval by specialist.

Execution

610 Third-party-certified installer

1. Certification: For the technical competency of the installer of the evidence of compliance with a third-party installation certification scheme.
2. Acceptable evidence: FIRAS Installer Certification.

620 Workmanship generally

1. Generally: Installation should be in accordance with the recommendations of the product manufacturers' literature and test data, and the ASFP guide "Firestopping of Service Penetrations - Best Practice in Design and Installation".
2. Gaps: Seal between building elements and services, to provide effective resistance to fire and the passage of smoke. Allow for capping sealants where required. Finish flush with surrounds.
3. Adjacent surfaces: Prevent overrun of filler, sealant or mortar on to finished surfaces.

640 Installing boarding

1. Position of boarding: Within opening.
2. Framing: Provide framing to all edges of boarding, and provide trimming around openings.
3. Bedding: Bed boarding on fire-resisting silicone.
4. Multiple board layers: Stagger joints between layers.
   4.1. Joints: Seal with board adhesive.
5. Fixing: As manufacturers recommendations.
6. Other requirements: Countersink screw heads and fill.
   Finish joint sealant flush with boards; rub down to receive paint finish.

650 Installing flexible intumescent gap sealer

1. Fitting of strips: Compress strips and fit into gap so that, as they decompress, the strips wedge themselves in the void.
2. Shrink wrapping: As manufacturers recommendations.
3. Joints

3.1. Ends of strips: Fit intumescent 'end piece' at both ends of run of fire stop laminate.

3.2. Joints between strips: Fit two intumescent 'end pieces' at each butt joint.

660 Applying intumescent foam

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

670 Applying intumescent mortar

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

680 Installing intumescent pillows

1. Number of pillows (per m² of opening): Number necessary to achieve fire resistance.
2. Orientation of bags: Perpendicular to plane of construction element containing opening.

690 Applying intumescent putty

1. Sequence: Install putty after services are permanently installed.
2. Loose dust and combustible materials: Do not disturb putty before final set has taken place.

710 Installing mineral wool batts

1. Installing batts: Fit tight into void between the penetrating services and the surrounding construction to form a solid barrier.
    1.1. Brackets: Impale batts on proprietary pressed steel brackets at 500 mm maximum centres and not greater than 250 mm from ends of batts.
        1.1.1. Bracket fixing: As manufacturers recommendations.
2. Face of batts: Flush with the surface of wall, floor or soffit.
3. Joints between batts: Butt joints, seal with acoustic intumescent sealant.
4. Gaps between services and barrier: Seal with fire-resisting sealant.

730 Fixing pipe collars

1. Collar fixing: As manufacturers recommendations.
2. Gap around collar: Seal with gap filler and sealant.
3. Length of wraps: Project 50 mm from each side of the element.

740 Inserting sealant backing material

1. Preparation: Removed debris from service penetration.

2. Installation: Insert joint filler to full depth of joint leaving sufficient depth to apply sealant.

745 Applying sealants generally

1. Application: As section Z22.

750 Applying capping sealant

1. Preparation: De-grease using cleaner recommended by sealant manufacturer.
2. Priming: Primer recommended by sealant manufacturer.
3. Depth of sealant: As manufacturers recommendations.
4. Temperature: Do not apply water-based sealants when they could be damaged by frost.

Completion

910 Cleaning

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

920 Inspection

1. Notice for inspection (minimum): Five working days.

Ω End of Section

P20
Unframed isolated trims/ skirtings/ sundry items

To be read with preliminaries/ general conditions

50 Existing approved reference flats

1. New works should match the completed and approved works within the designated reference flats in terms of detail and quality of workmanship. Where proposed details cannot be achieved due to site conditions, alternative solutions should be agreed with the architect and Conservation Officer before proceeding.
2. Designated reference flats:
   2.1. Type A3: Flat 26A Rowley Way
   2.2. Type B3: Flat 46A Rowley Way

60 Reference flats to be completed for approval

1. Procedure:
   1.1. Survey existing windows in advance of procuring materials.
   Note that each instance of each window type may not have equal dimensions, so it is essential that every instance is accurately surveyed to ensure the correct sizes of glazed units are procured.
   1.2. Finalise component details.
   1.3. Complete works to all windows within the designated reference flats for approval by design team and approving authorities, as described below.
   1.4. Obtain approval of appearance and quality for one of each completed dwelling type before proceeding with manufacture and/or installation in other dwellings.
2. Designated reference flats:
   2.1. Type A1: Flat 51E Rowley Way
   2.2. Type A2: Flat 117J Rowley Way
   2.3. Type A3: TBC
   2.4. Type B2: Flat 95A Rowley Way
   2.5. Type B3: TBC
   2.6. Type C4: Flat 13A Ainsworth Way

200 Medium-density fibreboard

1. Not permitted.

240 Plywood

1. Description: Bespoke skirtings, housing new heating pipework
2. Face ply species: Contractor's choice
3. Appearance class to BS EN 635: Suitable to receive paint finish
4. Bond quality to BS EN 314-2: Class 2
5. Reaction to fire rating: Not applicable
6. Thickness: As drawn
7. Edges: As drawn

8. Finish: As section M60
9. Support/ Fixing: Mechanically fixed to masonry/ concrete substrate. Refer also to clause P31.610

250 Other joinery within dwellings

1. Refer to "Better Homes" specification.

Execution

510 Installation generally

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

600 Mechanical fixings to heated walls

1. Refer to clause P31.610

Ω End of Section

P31
Holes, chases, covers and supports for services

Clauses

2 To be read with preliminaries/ general conditions.

4 To be read with Service Engineer's drawings and specification.

Products

300 Containment for new permanent infrastructure pipework

1. Description: Galvanised steel containment for new permanent infrastructure pipework.
2. Location:
   - 2.1. Block A: Between boiler house and Housing Office, fixed to underside of soffit/ linking bridge.
   - 2.2. Block B (level 4): Between boiler house and new sub-plant room, fixed to underside of soffit.
   - 2.3. Block B (level 3): Between new sub-plant room and helical stairs, within sunken garden.
   - 2.4. Block C: Between external refuse area (adjacent TRA hall rear entrance) and landlord store, fixed to wall face/ underside of linking bridge.
3. Material: Hot dip galvanised mild steel, to match existing.
   - 3.1. Size: As drawn, and as tight to services as possible.
4. Frame/ Support/ Fixing: Detail to match existing. Fixings to concrete to be hidden.
5. Maintenance access: Containment to be demountable to allow full access to pipework.
6. Setting out: Submit full setting out drawings for approval by design team and conservation officer prior to commencing works.

Execution

600 Mechanical fixings to existing concrete

1. Forming new mechanical fixings to existing building fabric to suit new temporary services should be avoided as far as possible.
2. Within new containment (see clause 300), existing fixings should be used where possible.
3. Where existing or new temporary services and redundant fixings are removed, holes in concrete should be made good in accordance with section C42.

610 Mechanical fixings to heated walls

1. Prior to drilling for fixings to heated walls, sufficient investigation should be undertaken to accurately determine the location of heating coils, to ensure that these are not damaged by new fixing works.
2. Investigations should be either electromagnetic or thermal (subject to heating season) imaging.

620 Setting out fixings to existing building fabric

1. Locations and dimensions of fixings, holes and chases for new services to be fixed in visible locations: Submit full setting out drawings for approval by design team and conservation officer prior to commencing works.

Ω End of Section

Z10
Purpose made joinery

To be read with preliminaries/ general conditions.

110 Fabrication

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

120 Cross section dimensions of timber

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

130 Preservative treated wood

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

140 Moisture content

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

210 Laminated plastics veneered boards/ panels

1. Fabrication: To British Laminated Plastics Fabricators Association Ltd (BLF) fabricating standards.
2. Balancing veneer: From decorative veneer manufacturer and of similar composition. Applied to reverse side of core material.

3. Finished components: Free from defects, including bow, twist, scratches, chipping, cracks, pimpling, indentations, glue marks, staining and variations in colour and pattern.
4. Joints visible in completed work: Tight butted, true and flush.

220 Wood veneered boards/ panels

1. Core material and veneers: Conditioned before bonding.
2. Setting out: Veneer features and grain pattern aligned regularly and symmetrically unless instructed otherwise.
3. Balancing veneer: Applied to reverse side of core material.
   3.1. Moisture and temperature movement characteristics: As facing veneer.
4. Veneer edges: Tight butted and flush, with no gaps.
5. Tolerance of veneer thickness (maximum): ± 0.5 mm.
6. Finished components: Free from defects, including bow, twist, scratches, chipping, splits, blebs, indentations, glue marks and staining.
7. Surface finish: Fine, smooth, free from sanding marks.

250 Finishing

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

Ω End of Section

Z20
Fixings and adhesives

Products

310 Fasteners generally

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

320 Packings

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

330 Nailed timber fasteners

1. Nails
    1.1. Steel: To BS 1202-1 or BS EN 10230-1.
    1.2. Copper: To BS EN 1202-2.
    1.3. Aluminium: To BS 1202-3.

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.

380 Miscellaneous screws

1. Type: To suit the fixing requirement of the components and substrate.

1.1. Pattern: Self-tapping, metallic drive screws, or power driven screws.

2. Washers and screw cups: Where required 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.

410 Powder actuated fixing systems

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

Execution

610 Fixing generally

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

620 Fixing through finishes

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

630 Fixing packings

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

640 Fixing cramps

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

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.

690 Using powder actuated fixing systems

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

700 Applying adhesives

1. Surfaces: Clean. Adjust regularity and texture to suit bonding and gap filling characteristics of adhesive.
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