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Kings Cross Station - Redevelopment Programme, Package 11 Northern Building

NBS Architectural

Material and Workmanship Specification

Job No. MC2939

Doc Ref No: ARC-SPE-SPR-NRB-CAG-N/A-01-02

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C20
Demolition

C20 Demolition

GENERAL REQUIREMENTS

120A EXTENT OF DECONSTRUCTION/ DEMOLITION
- General: Subject to retention requirements specified elsewhere, deconstruct/ demolish structures to be undertaken by others

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

150 FEATURES TO BE RETAINED
- General: Keep in place and protect the following: See demolition drawings for extent of works and features to remain.

SERVICES AFFECTED BY DECONSTRUCTION/ DEMOLITION

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

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

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

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

DECONSTRUCTION/ DEMOLITION WORK

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

330 DUST CONTROL

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

340 HEALTH HAZARDS

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

350 ADJOINING PROPERTY

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

360 STRUCTURES TO BE RETAINED

- Extent: to be agreed between the Contractor and English Heritage.
- Parts which are to be kept in place: Protect.
- Interface between retained structures and deconstruction/ demolition: Cut away and strip out with care to minimize making good.

391 ASBESTOS-CONTAINING MATERIALS – UNKNOWN OCCURRENCES

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

410 UNFORESEEN HAZARDS

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

MATERIALS ARISING

510A CONTRACTOR'S PROPERTY

- Components and materials arising from the deconstruction/ demolition work: Property of the Contractor except where otherwise provided within the Contractor's Salvage Strategy and approved by English Heritage.
- Action: Remove from site as work proceeds where not to be reused or recycled for site use.

511 EMPLOYER'S PROPERTY

- Components and materials to remain the property of the Employer: in accordance with the Contractor's Salvage Strategy and approved by English Heritage.
- Protection: Maintain until these items are removed by the Employer or reused in the Works, or until the end of the Contract.
- Special requirements: As stipulated by English Heritage.

520A RECYCLED/RECLAIMED MATERIALS

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

C41
Repairing/ Renovating/ Conserving masonry

C41 Repairing/ Renovating/ Conserving masonry

GENERALLY/ PREPARATION

120A SITE INSPECTION
- Purpose: To confirm type and extent of repair/ renovation/ conservation work as agreed with English Heritage

WORKMANSHIP GENERALLY

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

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

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

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

MATERIAL/ PRODUCTION/ ACCESSORIES

265 SALVAGED AND SECOND HAND BRICKS
- Source: Existing bricks removed from other areas of the site and reused in repairs.
- Condition:
  - Free from matter such as mortar, plaster, paint, bituminous materials and organic growths.
    Sound, clean and reasonably free from cracks and chipped arrises.

DISMANTLING/ REBUILDING

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

REPLACEMENTS AND INSERTIONS

330 PREPARATION FOR REPLACEMENT MASONRY

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

MORTAR REPAIRS

510 PREPARATION FOR MORTAR REPAIRS

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

520A MORTAR REPAIRSTo existing retained brickwork

- To be confirmed by Contractor upon investigation prior to works being carried out.

540 APPLYING MORTAR

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

POINTING/ REPOINTING

840 POINTING WITH TOOLS/ IRONS

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

860 BRUSHED FINISH TO JOINTS

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

H
Cladding/Covering

H20
Rigid sheet cladding

H20 Rigid sheet cladding

TYPE(S) OF SHEET CLADDING

150A SHEET CLADDINGTO CORRIDORS

- Support structure: Existing lathe & plaster walls.
- Board/ Sheet:
  - Manufacturer: Pawling Systems Ltd.
    Product reference: Impact Protection Sheet & Door Frame Protection Systems - See drawing ARC-DWG-SPR-NRB-CAP-0032 8 0033.
  - Material: Rigid PVC Sheets.
  - Thickness: 2mm.
  - Finish/ Colour: 483 Harvard Grey - TBC by NR.
  - Fasteners: in accordance witth manufacturers recommendations.
  - Joints:
    Type/ Treatment: Joint Covers.
    Accessories: End Caps, Inside and outside covers.
- Other requirements: None.

150B SHEET CLADDINGTO CORRIDORS (ALTERNATIVE TO 150A ABOVE)

- Support structure: Existing lathe & plaster walls.
- Board/ Sheet:
  - Manufacturer: Contractors Choice.
    Product reference: Aluminium Checker Plate - See drawing ARC-DWG-SPR-NRB-CAP-0032 8 0033.
  - Material: Aluminium.
  - Thickness: 2mm.
  - Finish/ Colour: TBC by NR.
  - Fasteners: in accordance witth manufacturers recommendations.
  - Joints:
    Type/ Treatment: Joint Covers.
    Accessories: End Caps, Inside and outside covers.
- Other requirements: None.

GENERAL REQUIREMENTS

240 TREATED TIMBER

- Exposed cut and drilled surfaces: Treat with two flood coats of a solution recommended for the purpose by main treatment solution manufacturer.

260 FIXING SHEETS

- General: Secure to supports without producing distortion.
- Fasteners: Evenly spaced in straight lines, in pairs across joints and sufficient distance from edge of sheet to prevent damage.

270 COVER STRIPS

- General: Form straight runs in single lengths wherever possible.
- Location and method of forming joints: Submit proposals where not detailed.

K
Linings/Sheathing/Dry partitioning

K10
Plasterboard dry linings/ partitions/ ceilings

K10 Plasterboard dry linings/ partitions/ ceilings

TYPES OF DRY LINING

125 METAL STUD PARTITION SYSTEMTYPE P1 in accordance with drawing ARC-DWG-SPR-NRB-CAD-0030

- Manufacturer:
  British Gypsum
  Head Office
  East Leake
  Loughborough
  Leicestershire
  LE12 6HX

  Technical enquiries:
  email: bgtechnical.enquiries@bpb.com
  Tel: 0844 800 1991 (+44 844 800 1991)
  Fax: 0844 561 8816 (+44 844 561 8816)

  Sales
  Tel: 0800 225 225 (+44 800 225 225)
  Fax: 0115 984 2244 (+44 115 984 2244).
  - Product reference: Gypframe Classic.
- Studs:
  - Type: Gypframe AcouStuds.
  - Centres: 600 mm.
- Head condition: See drawing ARC-DWG-SPR-NRB-CAD-0030.
  - Deflection allowance: 10 mm.
- Insulation: Isowool APR 1200 mineral wool.
  - Recycled content: Contractor's choice.
  - Thickness: 25 mm.
- Resilient layer: N/A.
- Linings: 2 x 12.5mm Gyproc Soundbloc.
- Finishing: Skim coat plaster.
  - Primer/ Sealer: Primer to painted areas.
  - Accessories: Metal beads/ stops recommended by board manufacturer .
- Other requirements: See drawing ARC-DWG-SPR-NRB-CAD-0030.

130 METAL STUD PARTITION SYSTEMTYPE P2 in accordance with drawing ARC-DWG-SPR-NRB-CAD-0030

- Manufacturer:
  British Gypsum
  Head Office
  East Leake
  Loughborough
  Leicestershire
  LE12 6HX

  Technical enquiries:
  email: bgtechnical.enquiries@bpb.com
  Tel: 0844 800 1991 (+44 844 800 1991)
  Fax: 0844 561 8816 (+44 844 561 8816)

  Sales
  Tel: 0800 225 225 (+44 800 225 225)
  Fax: 0115 984 2244 (+44 115 984 2244).
  - Product reference: Gypframe Shaftwall.
- Studs:
  - Type: Gypframe "I" metal studs.
  - Centres: 600 mm.
- Head condition: See drawing ARC-DWG-SPR-NRB-CAD-0030.
  - Deflection allowance: 10 mm.
- Insulation: Isowool APR 1200 mineral wool.
  - Recycled content: Contractor's choice.
  - Thickness: 25 mm.
- Resilient layer: N/A.
- Linings: 2 x 12.5mm Gyproc Firelihne to exposed face and 1 x 19mm Gyproc Coreboard to inner face.
- Finishing: Skim coat plaster.
  - Primer/ Sealer: Primer to painted areas.
  - Accessories: Metal beads/ stops recommended by board manufacturer .
- Other requirements: See drawing ARC-DWG-SPR-NRB-CAD-0030.

155 WALL LINING SYSTEM (METAL STUDS)TYPE P3 in accordance with drawing ARC-DWG-SPR-NRB-CAD-0030

- Manufacturer:
  British Gypsum
  Head Office
  East Leake
  Loughborough
  Leicestershire
  LE12 6HX

  Technical enquiries:
  email: bgtechnical.enquiries@bpb.com
  Tel: 0844 800 1991 (+44 844 800 1991)
  Fax: 0844 561 8816 (+44 844 561 8816)

  Sales
  Tel: 0800 225 225 (+44 800 225 225)
  Fax: 0115 984 2244 (+44 115 984 2244).
  - Product reference: GypLyner.
- Studs:
  - Type: Gypframe "I" metal stud.
  - Centres: 600 mm.
- Cavity between wall and studs: See drawing ARC-DWG-SPR-NRB-CAD-0030.
- Unbraced height (maximum): See drawing ARC-DWG-SPR-NRB-CAD-0030.
- Head condition: See drawing ARC-DWG-SPR-NRB-CAD-0030.
  - Deflection allowance: Not required.
- Insulation: Isover Steel Frame Infill Batts (SF2).
  - Recycled content: Not applicable.
  - Thickness: 50 mm.
- Vapour control layer: Not required.
- Resilient layer: Not required
- Linings: 1 x 15mm Gyproc Fireline.
- Access units: Not required.
- Finishing: Skim coat plaster.
  - Primer/ Sealer: Primer to painted areas.
  - Accessories: Metal beads/ stops recommended by board manufacturer .
- Other requirements: Stainless steel cap to top of vinyl upstand skirting on 2mm adhesive.

160 METAL STUD PARTITION SYSTEMTYPE P4 in accordance with drawing ARC-DWG-SPR-NRB-CAD-0030

- Manufacturer:
  British Gypsum
  Head Office
  East Leake
  Loughborough
  Leicestershire
  LE12 6HX

  Technical enquiries:
  email: bgtechnical.enquiries@bpb.com
  Tel: 0844 800 1991 (+44 844 800 1991)
  Fax: 0844 561 8816 (+44 844 561 8816)

  Sales
  Tel: 0800 225 225 (+44 800 225 225)
  Fax: 0115 984 2244 (+44 115 984 2244).
  - Product reference: Gypframe Classic.
- Studs:
  - Type: Gypframe AcouStuds.
  - Centres: 600 mm.
- Head condition: See drawing ARC-DWG-SPR-NRB-CAD-0030.
  - Deflection allowance: 10 mm.
- Insulation: Isowool APR 1200 mineral wool.
  - Recycled content: Contractor's choice.
  - Thickness: 25 mm.
- Resilient layer: N/A.
- Linings: 2 x 12.5mm Gyproc Soundbloc.
- Finishing: Skim coat plaster.
  - Primer/ Sealer: Primer to painted areas.
  - Accessories: Metal beads/ stops recommended by board manufacturer .
- Other requirements: 2mm thick steel mesh, 50mm. max openings, fixed to attack side across face of studs. See drawing ARC-DWG-SPR-NRB-CAD-0030.

220 PROPRIETARY SUSPENDED CEILING SYSTEMTYPE C2, C4 and C5 in accordance with drawing ARC-DWG-SPR-NRB-CAD-0025

- Ceiling system manufacturer:
  British Gypsum
  Head Office
  East Leake
  Loughborough
  Leicestershire
  LE12 6HX

  Technical enquiries:
  email: bgtechnical.enquiries@bpb.com
  Tel: 0844 800 1991 (+44 844 800 1991)
  Fax: 0844 561 8816 (+44 844 561 8816)

  Sales
  Tel: 0800 225 225 (+44 800 225 225)
  Fax: 0115 984 2244 (+44 115 984 2244).
  - Product reference: British Gypsum Casoline MF Suspended Ceiling System.
- Ceiling:
  - Soffit height above finished floor level: Varies .
- Suspension system:
  - Hangers: Type recommended by board manufacturer screwed to sides of joists or into existing concrete soffit.
  - Hanger centres: As recommended by board manufacturer.
  - Primary grid centres: As recommended by board manufacturer.
  - Secondary grid centres: As recommended by board manufacturer.
- Linings: 2 x 12.5mm Gyproc Fireline.
- Finishing: Skim coat plaster.
- Insulation: Not required.
  - Recycled content: Not applicable.
  - Thickness: N/A.
- Access: Access panels indicated on drawing.
- Accessories: See drawing ARC-DWG-SPR-NRB-CAD-0025.
- Integrated services fittings: See drawing ARC-DWG-SPR-NRB-CAD-0025.
- Other requirements: See drawing ARC-DWG-SPR-NRB-CAD-0025.

245 CEILING LINING ON TIMBERTYPE C3 in accordance with drawing ARC-DWG-SPR-NRB -CAD-0025

- Background: Joists to suit existing centres.
- Metal resilient (acoustic) bars: Not required.
- Linings: 2 x 12.5mm Gyproc Fireline.
  - Fixings: As recommended by board manufacturer.
- Finishing: Skim coat plaster.
  - Primer/ Sealer: Primer to painted areas.
  - Accessories: Metal beads/ stops recommended by board manufacturer .
- Other requirements: Minimum of 150mm mineral wool insulation (min 24 kg/m3). Boards fixed directly to underside of exposed joists.

INSTALLATION

335 ADDITIONAL SUPPORTS

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

435 DRY LININGS GENERALLY

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

445 CEILINGS

- Sequence: Fix boards to ceilings before installing dry lined walls and partitions.
- Orientation of boards: Fix with bound edges at right angles to supports and with ends staggered in adjacent rows.
- Two layer boarding: Stagger joints between layers.

455 METAL FRAMING FOR PARTITIONS/ WALL LININGS

- Setting out: Accurately aligned and plumb.
  - Frame/ Stud positions: Equal centres to suit specified linings, maintaining sequence across openings.
  - Additional studs: To support vertical edges of boards.
- Fixing centres at perimeters (maximum): 600 mm.
- Openings: Form accurately.
  - 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.
  - Services penetrations: Allow for associated fire stopping.

485 SUSPENDED CEILING GRIDS

- Setting out: Accurately aligned and level.
  - Grid members and hangers: Centres to suit specified linings and imposed loads.
  - Additional grid members: Provide bracing and stiffening at upstands, partition heads, access hatches, etc.
- Fixing: Securely at perimeters, grid joints, top and bottom hanger fixings.

505 INSTALLING MINERAL WOOL INSULATION

- Fitting insulation: Closely butted joints and no gaps. Use fasteners to prevent slumping or displacement.
- Services:
  - Electrical cables overlaid by insulation: Sized accordingly.

  Ceilings: Cut insulation around electrical fittings, etc.

510 SEALING GAPS AND AIR PATHS

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

555 FIRE STOPPING AT PERIMETERS OF DRY LINING SYSTEMS

- Material: Tightly packed mineral wool or intumescent mastic/ sealant.
- Application: To perimeter abutments to provide a complete barrier to smoke and flame.

560 JOINTS BETWEEN BOARDS

- Tapered edged plasterboards:
  - Bound edges: Lightly butted.
  - Cut/ unbound edges: 3 mm gap.
- Square edged plasterboards: 3 mm gap.
- Square edged fibre reinforced gypsum boards: 5 mm gap.

565 VERTICAL JOINTS

- Joints: Centre on studs.
  - Partitions: Stagger joints on opposite sides of studs.
  - Two layer boarding: Stagger joints between layers.

570 HORIZONTAL JOINTS

- Surfaces exposed to view: Horizontal joints not permitted. Seek instructions where height of partition/ lining exceeds maximum available length of board.
- Two layer boarding: Stagger joints between layers by at least 600 mm.
- Edges of boards: Support using additional framing.
  - Two layer boarding: Support edges of outer layer.

590 FIXING PLASTERBOARD TO METAL FRAMING/ FURRINGS

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

FINISHING

650 LEVEL OF DRY LINING ACROSS JOINTS

- Sudden irregularities: Not permitted.
- 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.
  - Tapered edge joints:
    Permissible deviation (maximum) across joints when measured with feet resting on boards: 3 mm.
  - External angles:
    Permissible deviation (maximum) for both faces: 4 mm.
  - Internal angles:
    Permissible deviation (maximum) for both faces: 5 mm.

680 SKIM COAT PLASTER FINISH

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

695 INSTALLING BEADS/ STOPS

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

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

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

TYPES OF FLOORING/ SHEATHING/ DECKING /SARKING/ LININGS/ CASINGS

110 WOOD-BASED SHEETS GENERALLY

- Standard: To BS EN 13986.
  Evidence of compliance: Submit.

715A PLYWOOD UNDERLAY

- Substrate: Varies between existing concrete slab and existing softwood floor on timber joists.
  - Condition: Sound and acceptably level.
  - Preparation: Gross irregularities removed or filled. Protruding fasteners removed or punched in.
- Underlay: Plywood to an approved national standard.
  - Finish: Sanded.
  - Thickness: 6 mm.
  - Sheet size: 2440 x 1220 mm.
- Setting out: End joints staggered and a 0.5-1 mm gap between adjacent sheets. Joints in underlay offset from joints in substrate.
- Fixing:
  - Fasteners: Contractor's choice suitable for application.
    Fastener heads: Set flush with sheet surface.
  - Fixing centres: 150 mm grid over each sheet commencing at centre. Maximum 100 mm centres around perimeter, set in 12 mm from edges.

WORKMANSHIP

910 INSTALLATION GENERALLY

- Timing: Building to be weathertight before fixing boards internally.
- Moisture content of timber supports (maximum): 18%.
- Joints between boards: Accurately aligned, of constant width and parallel to perimeter edges.
- Methods of fixing, and fasteners: As section Z20 where not specified otherwise.

915 DRYNESS OF CONCRETE/ SCREED SUBSTRATES FOR FLOATING FLOORS

- Relative humidity above substrate when tested with a hygrometer to BS 8201, Appendix A (maximum): 75%.
  - Test points: All corners, around perimeter, and random points over area being tested.
  - Drying aids: Turned off for not less than 4 days before testing.

940 BOARD MOISTURE CONTENT AND CONDITIONING

- Moisture content of boards at time of fixing: Appropriate to end use.
- Conditioning regime: Submit proposals.

960 FIXING GENERALLY

- Boards/ sheets: Fixed securely to each support without distortion and true to line and level.
- Fasteners: Evenly spaced in straight lines and, unless otherwise recommended by board manufacturer, in pairs across joints.
  - Distance from edge of board/ sheet: Sufficient to prevent damage.
- Surplus adhesive: Removed as the work proceeds.

980 OPEN JOINTS

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

K32
Panel cubicles/ duct and wall linings/ screens

K32 Panel cubicles/ duct and wall linings/ screens

112A FULLY FRAMED PANEL CUBICLESTO TOILETS

- Manufacturer: Thrislington Sales Ltd,
  Prince William Avenue,
  Sandycroft,
  Deeside,
  Flintshire.
  CH5 2QZ .
  - Product reference: Proprietary laminate faced ducting system including concealed metal framing.
- Frame:
  - Type: As drawing ARC-DWG-SPR-NRB-CAD-0039, 0043 & 0044.
  - Height: 2000 mm.
  - Material/ finish: As drawing ARC-DWG-SPR-NRB-CAD-0039, 0043 & 0044.
- Panels:
  - Height (overall): Full height.
  - Floor clearance: 100 mm.
  - Core material: Manufacturer's standard.
    Thickness: Manufacturer's standard.
  - Facings: As drawing ARC-DWG-SPR-NRB-CAD-0039, 0043 & 0044.
    Colour/ Pattern/ Species: As drawing ARC-DWG-SPR-NRB-CAD-0039, 0043 & 0044.
  - Edge treatment: As drawing ARC-DWG-SPR-NRB-CAD-0039, 0043 & 0044.
- Doors:
  - Height: 2000mm.
  - Core material: As drawing ARC-DWG-SPR-NRB-CAD-0039, 0043 & 0044.
    Thickness: Manufacturer's standard.
  - Facings: As drawing ARC-DWG-SPR-NRB-CAD-0039, 0043 & 0044.
    Colour/ Pattern/ species: As drawing ARC-DWG-SPR-NRB-CAD-0039, 0043 & 0044.
  - Edge treatment: As drawing ARC-DWG-SPR-NRB-CAD-0039, 0043 & 0044.
  - Ironmongery: Manufacturer's standard; doors to hang open.
    Colour: As drawing ARC-DWG-SPR-NRB-CAD-0039, 0043 & 0044.
- Accessories: As drawing ARC-DWG-SPR-NRB-CAD-0039, 0043 & 0044.
- Other requirements: None.

150A DUCT/ WALL LININGS – PANELS AND PROPRIETARY FRAMESTo all vertical risers between floors

- Manufacturer:
  British Gypsum
  Head Office
  East Leake
  Loughborough
  Leicestershire
  LE12 6HX

  Technical enquiries:
  email: bgtechnical.enquiries@bpb.com
  Tel: 0844 800 1991 (+44 844 800 1991)
  Fax: 0844 561 8816 (+44 844 561 8816)

  Sales
  Tel: 0800 225 225 (+44 800 225 225)
  Fax: 0115 984 2244 (+44 115 984 2244).
  - Product reference: Gypframe Shaftwall.

  Studs:
  - Type: Gypframe "I" metal studs.
  - Centres: To suit riser sizes

  Head condition: See drawing ARC-DWG-SPR-NRB-CAD-0030.
  - Deflection allowance: 10 mm.

  Linings: 2 x 12.5mm Gyproc Firelihne to exposed face
  Finishing: Skim coat plaster.
  - Primer/ Sealer: Primer to painted areas.
  - Accessories: Metal beads/ stops recommended by board manufacturer ..

  Skirting: Varies, see drawings.

250 INSTALLATION

- Programming: Do not install cubicles or duct/ wall panels before building is weathertight, wet trades have finished their work, wall and floor finishes are complete, and the building is well dried out.
- Accuracy: Set out to ensure frames and/ or panels and doors are plumb, level and accurately aligned.
- Modifications: Do not cut, plane or sand prefinished components except where shown on drawings.
- Fixing: Secure components using methods and fasteners recommended by the cubicle manufacturer. Prevent pulling away, bowing or other distortions to frames, panels and doors.
- Moisture and thermal movement: Make adequate allowance for future movement.

L
Windows/Doors/Stairs

L10
Windows/ Rooflights/ Screens/ Louvres

L10 Windows/ Rooflights/ Screens/ Louvres

GENERAL

110 EVIDENCE OF PERFORMANCE
- Certification: Provide independently certified evidence that all incorporated components comply with specified performance requirements.

120 SITE DIMENSIONS
- Procedure: Before starting work on designated items take site dimensions, record on shop drawings and use to ensure accurate fabrication.
- Designated items: Fabrication drawings to be submitted.

PRODUCTS

580A SECONDARY GLAZING SYSTEM TO EXISTING TIMBER WINDOWS
- Manufacturer: Granada Secondary Glazing Ltd
  Units 1 & 2, Carrwood Road, Chesterfield Trading Estate
  Chesterfield, Derbyshire, S41 9QB .
  - Product reference: Submit proposals .
- Type: Lift out and/or hinged .
- Framing material: to match previous Package 6 installation .
  - Finished as delivered: to match previous Package 6 installation .
- Glazing details: As supplied .
- Ironmongery/ Accessories: Coupling mullions/ transoms .
- Grounds/ Subframe: As required .
- Fixing: Screwed to wood subframe .

EXECUTION

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

750 BUILDING IN
- General: Not permitted unless indicated on drawings.
  - Brace and protect components to prevent distortion and damage during construction of adjacent structure.

820 IRONMONGERY
- Fixing: Assemble and fix carefully and accurately using fasteners with matching finish supplied by ironmongery manufacturer. Do not damage ironmongery and adjacent surfaces.
- Checking/ Adjusting/ Lubricating: Carry out at Completion and ensure correct functioning.

L20
Doors/ shutters/ hatches

L20 Doors/ shutters/ hatches

GENERAL

110 EVIDENCE OF PERFORMANCE

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

112 TIMBER PROCUREMENT

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

112A TIMBER PROCUREMENT SALVAGE OF EXISTING TIMBER ITEMS

- Timber (including timber for wood-based products): Obtained from Network Rail from previously salvaged projects:
  - Network Rail to provide suitable salvage items for reuse.
- Documentation: Provide either:
  - Documentary evidence that salvage item is of correct period.
  - Evidence that salvage item is fit for re-use.
- - Other evidence: None.

115 FIRE RESISTING DOORS/ DOORSETS/ ASSEMBLIES

- Evidence of fire performance: Provide certified evidence, in the form of a product conformity certificate, directly relevant fire test report or engineering assessment, that each door/ doorset/ assembly supplied will comply with the specified requirements for fire resistance if tested to BS 476-22, BS EN 1634-1 or BS EN 1634-3. Such certification must cover door and frame materials, glass and glazing materials and their installation, essential and ancillary ironmongery, hinges and seals.

150 SITE DIMENSIONS

- Procedure: Before starting work on designated items take site dimensions, record on shop drawings and use to ensure accurate fabrication.
- Designated items: All openings ready to receive new doors.

PRODUCTS

230 WOOD FLUSH DOORSFD60S FIRE RESISTING AND SMOKE CONTROL

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Facings: Refer to Door and Ironmongery Schedule Drawings ARC-DWG-SPR-NRB-CAP-0035-0037.
- Lippings: Refer to Door and Ironmongery Schedule Drawings ARC-DWG-SPR-NRB-CAP-0035-0037.
- Preservative treatment: Required.
- Finish as delivered: Refer to Door and Ironmongery Schedule Drawings ARC-DWG-SPR-NRB-CAP-0035-0037.
- Glazing/ Infill details: Refer to Door and Ironmongery Schedule Drawings ARC-DWG-SPR-NRB-CAP-0035-0037.
  - Manifestation: Not required.
  - Beading: Refer to Door and Ironmongery Schedule Drawings ARC-DWG-SPR-NRB-CAP-0035-0037.
- Other requirements: Refer to Section P12 .

310A WOOD DOOR FRAMESAND ARCHITRAVES

- Refer to Door and Ironmongery Schedule Drawings ARC-DWG-SPR-NRB-CAP-0035-0037

630A HATCHES Within second floor ceiling leading to roof void

- Manufacturer: [
  British Gypsum
  Head Office
  East Leake
  Loughborough
  Leicestershire
  LE12 6HX

  Technical enquiries:
  email: bgtechnical.enquiries@bpb.com
  Tel: 0844 800 1991 (+44 844 800 1991)
  Fax: 0844 561 8816 (+44 844 561 8816)

  Sales
  Tel: 0800 225 225 (+44 800 225 225)
  Fax: 0115 984 2244 (+44 115 984 2244).
  - Product reference: British Gypsum Profilex FR1 Loft Hatch Panel within Casoline MF system
  - Soffit height above finished floor level: Varies.
    Suspension system:
  - Hangers: Type recommended by board manufacturer screwed to sides of joists or into existing concrete soffit.
  - Hanger centres: As recommended by board manufacturer.
  - Primary grid centres: As recommended by board manufacturer.
  - Secondary grid centres: As recommended by board manufacturer.
  - Size: 535mm x 535mm
- Other requirements
  - Pin hinge
  - 100mm Isover APR insulation above
  - Budget lock
  - Beaded frame .

EXECUTION

710 PROTECTION OF COMPONENTS

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

730 PRIMING/ SEALING

- Wood surfaces inaccessible after installation: Primed or sealed as specified before fixing components.

760 BUILDING IN

- General: Not permitted unless indicated on drawings.

790 FIXING OF WOOD FRAMES

- Spacing of fixings (frames not predrilled): Maximum 150 mm from ends of each jamb and at 600 mm maximum centres.

809 FIRE RESISTING/ SMOKE CONTROL DOORS/ DOORSETS/ ROLLER SHUTTERS/ CURTAINS

- Installation: By a firm currently registered under a third party accredited fire door installer scheme in accordance with instructions supplied with the product conformity certificate, test report or engineering assessment.

810A FIRE RESISTING/ SMOKE CONTROL DOORS/ DOORSETS/ ROLLER SHUTTERS/ CURTAINS

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

820 SEALANT JOINTS

- Sealant:
  - Manufacturer: Contractor's choice .
    Product reference: Contractor's choice .
  - Colour: White .
  - Application: As section Z22 to prepared joints. Triangular fillets finished to a flat or slightly convex profile.

830 FIXING IRONMONGERY GENERALLY

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

840 FIXING IRONMONGERY TO FIRE RESISTING DOOR ASSEMBLIES

- General: All items fixed in accordance with door leaf manufacturer's recommendations ensuring that integrity of the assembly, as established by testing, is not compromised.
- Holes for through fixings and components: Accurately cut.
  - Clearances: Not more than 8 mm unless protected by intumescent paste or similar.
  - Lock/ Latch cases for fire 60 doors requiring $\geq$ 60 minutes integrity performance: Coated with intumescent paint or paste before installation.

850 LOCATION OF HINGES

- Primary hinges: Where not specified otherwise, positioned with centre lines 250 mm from top and bottom of door leaf.
- Third hinge: Where specified, positioned on centre line of door leaf .
- Hinges for fire resisting doors: Positioned in accordance with door leaf manufacturer's recommendations.

L30
Stairs/ ladders/ walkways/ handrails/ balustrades

L30 Stairs/ ladders/ walkways/ handrails/ balustrades

COMPONENTS

590A STAIR NOSINGSTO STAIR EXTENSION
- Standard: In accordance with BS 8300.
- Manufacturer: Vulcan Architectural T: 020 8681 0617.
  - Product reference: VUL 132C.
- Material: Mill finish aluminium with pre-bonded carborundum insert.
- Size – outer dimensions (rise x going): see drawing ARC-DWG-SPR-NRB-CAD-0042.
  - Profile: Square nosing.

  Colour:
  - Channel/ Frame: Mill finish aluminium.
  - Inserts: Yellow to bottom and top treads, White to inbetween treads.
- Accessories: Predrilled inserts.

INSTALLATION

630 CORROSION PROTECTION OF DISSIMILAR MATERIALS
- Components/ substrates/ fasteners of dissimilar materials: Isolate using washers/ sleeves or other suitable means to separate materials to avoid corrosion and/ or staining.

640 INSTALLATION GENERALLY
- Fasteners and methods of fixing: To section Z20.
- Structural members: Do not modify, cut, notch or make holes in structural members, except as indicated on drawings.
- Temporary support: Do not use stairs, walkways or balustrades as temporary support or strutting for other work.
- Applied finishes: Substrates to be even, dry, sound and free from contaminants. Make good substrate surfaces and prepare/ prime as finish manufacturer's recommendation before application.

670 INSTALLATION OF TREAD INSERTS/ NOSINGS
- Treads: Fully cured, sound and level.
- Fixing:
  - Location/ position: In accordance with BS 8300.
  - Fixings: As manufacturer's recommendations.

  Centres: As manufacturer's recommendations.

L40
General glazing

L40 General glazing

GENERAL REQUIREMENTS

150 WORKMANSHIP GENERALLY

- Glazing generally: To BS 6262.
- Integrity: Glazing must be wind and watertight under all conditions with full allowance made for deflections and other movements.
- Dimensional tolerances: Panes/ sheets to be within ± 2 mm of specified dimensions.
- Materials:
  - Compatibility: Glass/ plastics, surround materials, sealers, primers and paints/ clear finishes to be used together to be compatible. Avoid contact between glazing panes/ units and alkaline materials such as cement and lime.
  - Protection: Keep materials dry until fixed. Protect insulating glass units and plastics glazing sheets from the sun and other heat sources.

152 PREPARATION

- Surrounds, rebates, grooves and beads: Clean and prepare before installing glazing.

155 GLASS GENERALLY

- Standards: To BS 952 and relevant parts of:
  - BS EN 572 for basic soda lime silicate glass.
  - BS EN 1096 for coated glass.
  - BS EN 1748-1 for borosilicate glass.
  - BS EN 1748-2 for ceramic glass.
  - BS EN 1863 for heat strengthened soda lime silicate glass.
  - BS EN 12150 for thermally toughened soda lime silicate safety glass
  - BS EN 12337 for chemically strengthened soda lime silicate glass.
  - BS EN 13024 for thermally toughened borosilicate safety glass.
  - BS EN ISO 12543 for laminated glass and laminated safety glass.
- Panes/ sheets: Clean and free from obvious scratches, bubbles, cracks, rippling, dimples and other defects.
  - Edges: Generally undamaged. Shells and chips not more than 2 mm deep and extending not more than 5 mm across the surface are acceptable if ground out.

180 BEAD FIXING WITH PINS

- Pin spacing: Regular at maximum 150 mm centres, and within 50 mm of each corner.
- Exposed pin heads: Punched just below wood surface.

181 BEAD FIXING WITH SCREWS

- Screw spacing: Regular at maximum 225 mm centres, and within 75 mm of each corner.

TYPES OF GLAZING

230A BEAD FIXED SINGLE GLAZINGTO EXISTING VIASION PANELS TO DOORS

- Pane material: To match existing .
- Surround/ bead: As existing - replace damaged sections for like .
  - Bead fixing: to match existing .
- Glazing installation:
  - Glass: Located centrally in surround using setting and location blocks and distance pieces.
  - Finished thickness of back bedding after inserting glazing (minimum): 3 mm.
  - Front bedding: Applied to fill voids.
  - Beads: Bedded in glazing compound and fixed securely.
  - Visible edge of glazing compound: Finished internally and externally with a smooth chamfer.

M
Surface finishes

M10
Cement based levelling/ wearing screeds

M10 Cement based levelling/ wearing screeds

TYPES OF SCREED

140A PROPRIETARY POLYMER MODIFIED LEVELLING SCREEDSTo all existing concrete floors where applicable, to be agreed on site

- Substrate: In situ concrete slab.
- Screed manufacturer:
  Watco
  Watco UK Ltd,
  Watco House,
  Filmer Grove,
  Godalming,
  Surrey GU7 3AL
  01483 418 418.
  - Product reference: Flowtop.
- Screed construction: Fully bonded.
- Thickness:
  - Nominal: 3mm.
  - Minimum: 3mm.
  - Maximum: 10mm.
- Mix: To screed manufacturer's recommendations.
- Finish: Smooth floated, as clause 530.
  - To receive: 6mm plyboard underlay.
- Other requirements: None.

GENERALLY/ PREPARATION

210 SUITABILITY OF SUBSTRATES

- General:
  - Suitable for specified levels and flatness/ regularity of finished surfaces. Consider permissible minimum and maximum thicknesses of screeds.
  - Sound and free from significant cracks and gaps.
- Concrete strength: In accordance with BS 8204-1, Table 2.
- Cleanliness: Remove plaster, debris and dirt.
- Moisture content: To suit screed type. New concrete slabs to receive fully or partially bonded construction must be dried out by exposure to the air for minimum six weeks.

220 PROPRIETARY LEVELLING/ WEARING SCREEDS

- General: Materials, mix proportions, mixing methods, minimum/ maximum thicknesses and workmanship must be in accordance with recommendations of screed manufacturer.
- Standard: To BS 8204-3.

BATCHING/MIXING

306 PROPRIETARY POLYMER MODIFIED SCREEDS

- Cement types: In accordance with BS 8204-3.
- Sand: To BS EN 13139:
  - Grading limits: 0/4 mm (MP) category 1.
- Aggregates: In accordance with BS 8204-3.

307 ADMIXTURES

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

330 MIXING

- Water content: Minimum necessary to achieve full compaction, low enough to prevent excessive water being brought to surface during compaction.
- Mixing: Mix materials thoroughly to uniform consistence. Mixes other than no-fines must be mixed in a suitable forced action mechanical mixer. Do not use a free fall drum type mixer.
- Consistency: Use while sufficiently plastic for full compaction.
- Ready-mixed retarded screed mortar: Use within working time and site temperatures recommended by manufacturer. Do not retemper.

LAYING

355 FLATNESS/ SURFACE REGULARITY OF FLOOR SCREEDS

- Standard: In accordance with BS 8204-1, Table 5.
- Test: In accordance with BS 8204-1, Annex C.
- Sudden irregularities: Not permitted.

FINISHING/CURING

510 FINISHING GENERALLY

- Timing: Carry out all finishing operations at optimum times in relation to setting and hardening of screed material.
- Prohibited treatments to screed surfaces:
  - Wetting to assist surface working.
  - Sprinkling cement.

530 SMOOTH FLOATED FINISH

- Finish: Even texture with no ridges or steps.

650 CURING

- General: Prevent premature drying. Immediately after laying, protect surface from wind, draughts and strong sunlight. As soon as screed has set sufficiently, closely cover with polyethylene sheeting.
- Curing period (minimum): Keep polyethylene sheeting in position for period recommended by screed manufacturer.
- Drying after curing: Allow screeds to dry gradually. Do not subject screeds to artificial drying conditions that will cause cracking or other shrinkage related problems.

M20
Plastered/ Rendered/ Roughcast coatings

M20 Plastered/ Rendered/ Roughcast coatings

TYPES OF COATING

110 CEMENT:LIME:SANDINTERNAL PLASTER TO LATH & PLASTER WALLS

- Substrate: Lathings.
  - Preparation: Remove existing render to affected area to expose lathings.
- Cement:lime:sand mortar:
  - Type: Ready-to-use mortar or ready-mixed lime:sand.
  - Pigment: To match existing render.
- Undercoats:
  - Mix (cement:lime:sand): 1:1:5-6 (where final coat thrown) or 1:2:8-9 (where final coat trowelled).
    Cement type: Sulfate resisting.
  - Thickness (excluding dubbing out and keys): First coat 3-6mm mm (from face of lathing) and second coat 10-14 mm.
- Final coat:
  - Mix (cement:lime:sand): 1:1:5-6.
    Cement type: Sulfate resisting.
    Other requirements: Screen sand through 3 mm mesh sieve.
  - Thickness: 8-11 mm prior to scraping.
  - Finish: To match existing.
- Accessories: Stops and beads where required.

110A CEMENT:LIME:SANDINTERNAL PLASTER TO MASONRY WALLS

- Substrate: Existing Keyed common bricks.
  - Preparation: Rake out joints for key.
- Cement:lime:sand mortar:
  - Type: Ready-to-use mortar or ready-mixed lime:sand.
  - Pigment: To match existing render.
- Undercoats:
  - Mix (cement:lime:sand): 1:1:5-6 (where final coat thrown) or 1:2:8-9 (where final coat trowelled).
    Cement type: Sulfate resisting.
  - Thickness (excluding dubbing out and keys): First coat 8-12 mm (exclusive of keys) and second coat 6-10 mm.
- Final coat:
  - Mix (cement:lime:sand): 1:1:5-6.
    Cement type: Sulfate resisting.
    Other requirements: Screen sand through 3 mm mesh sieve.
  - Thickness: 8-11 mm prior to scraping.
  - Finish: To match existing.
- Accessories: Stops and beads where required.

280 GYPSUM PLASTER SKIM COAT ON PLASTERBOARD

- Plasterboard: 12.5 mm.
  - Preparation: Bonding agent recommended by plaster manufacturer.
- Plaster: Board finish/ finish plaster to BS EN 13279-1, class B.
  - Manufacturer: British Gypsum.
    Product reference: Thistle Multi-Finish or equal approved.
  - Thickness: 3mm.
  - Finish: Smooth.
- Accessories: Beads and stops .

310 LIME:SANDRENDER

- Substrate: Existing brickwork.
  - Preparation: Bonding coat recommended by lime manufacturer.
- Lime manufacturer: LimeRight 350 Hydraulic Mortar - subject to site inspection prior to works being undertaken.
  - Product reference/ Type: Hydraulic NHL3.5.
- Undercoats: to suit background - lath or masonry - see clauses abbove.
  - Mix: Subject to site trials.
    Sand: To BS EN 13139, grading to approval.
  - Thickness (excluding dubbing out and keys): As existing.
- Final coat:
  - Mix: Subject to site trials.
    Sand: To BS EN 13139, grading to approval.
  - Thickness: As existing.
  - Finish: To match existing.
- Accessories: Stops and beads .
- Other requirements: Finish render flush with existing finish lines.

330 PROPRIETARY LIME:SANDRENDER

- Substrate: Existing brickwork & timber laths.
  - Preparation: Bonding coat recommended by lime manufacturer.
- Manufacturer: Submit proposals.
- Undercoats:
  - Product reference/ Type: To be confirmed.
    Fibre reinforcement: Hair .
  - Thickness (excluding dubbing out and keys): As existing.
- Final coat: Tto match existing (3-6mm).
  - Product reference: Hydraulic lime mortar, NHL 3.5..
  - Thickness: As existing.
  - Finish: To match existing.
- Accessories: Stops and beads .
- Other requirements: To match existing.

MATERIALS AND MAKING OF MORTAR

438 CEMENTS FOR MORTARS

- Cement: To BS EN 197-1 and CE marked
  - Types: Portland cement, CEM I.
    Portland slag cement, CEM II.
    Portland fly ash cement, CEM II.
  - Strength class: 32.5, 42.5 or 52.5.
- White cement: To BS EN 197-1 and CE marked.
  - Type: Portland cement, CEM 1.
  - Strength class: 52.5.
- Sulfate resisting Portland cement: To BS 4027 and Kitemarked.
  - Strength class: 42.5.
- Masonry cement: To BS EN 998-1 and Kitemarked.

440 SAND FOR CEMENT GAUGED MORTARS

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

443 LIME FOR CEMENT GAUGED MORTARS

- Standard: To BS EN 459-1.
  Type: CL 90S.

449 ADMIXTURES FOR CEMENT GAUGED MORTARS

- Suitable admixtures: Select from:
  - Air entraining (plasticizing) admixtures: To BS EN 934-2 and compatible with other mortar constituents.
  - Other admixtures: Submit proposals.
- Prohibited admixtures: Calcium chloride and any admixture containing calcium chloride.

478A HYDRAULIC LIME To be approved by English Heritage

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

495 MIXING

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

497 COLD WEATHER

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

PREPARING SUBSTRATES

510 SUITABILITY OF SUBSTRATES

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

541 BONDING AGENT APPLICATION

- General: Apply evenly to substrate to achieve effective bond of plaster/ render coat. Protect adjacent surfaces.

556 REMOVING DEFECTIVE EXISTING RENDER

- Render for removal: Detached, hollow, soft, friable, badly cracked, affected by efflorescence or otherwise damaged.
- Removing defective render: Cut out to regular rectangular areas with straight edges.
  - Horizontal and vertical edges: Square cut or slightly undercut.
  - Bottom edges to external render: Do not undercut.
  - Render with imitation joints: Cut back to joint lines.
- Cracks:
  - Fine hairline cracking/ crazing: Leave.
  - Other cracks: Obtain instructions.

  Dust and loose material: Remove from exposed substrates and edges.

566A REMOVING DEFECTIVE EXISTING PLASTER

- Plaster for removal: Detached, soft, friable, badly cracked, affected by efflorescence or otherwise damaged.
  - Hollow, detached areas: Obtain instructions.
- Stained plaster: Submit proposals.
- Removing defective plaster. Cut back to a square, sound edge.
- Faults in background (structural deficiencies, damp, etc.): Submit proposals.
- Cracks:
  - Fine hairline cracking/ crazing: Leave.
  - Other cracks; Obtain instructions.
- Dust and loose material: Remove from exposed substrates and edges.

568 EXISTING DAMP AFFECTED PLASTER/ RENDER

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

BACKINGS/ BEADS/ JOINTS

630 BEADS/ STOPS FOR INTERNAL USE

- Material: Galvanized steel to BS 13658-1.

640 BEADS/ STOPS GENERALLY

- Location: External angles and stop ends, except where specified otherwise.
- Corners: Neat mitres at return angles.
- Fixing: Secure, using longest possible lengths, plumb, square and true to line and level, ensuring full contact of wings with substrate.
  - Beads/ stops for external render: Fix mechanically.
- Finishing: After coatings have been applied remove surplus material, while still wet, from surfaces of beads/ stops exposed to view.

659 PLASTERBOARD JOINTS

- Joints and angles (except where coincident with metal beads): Reinforce with continuous lengths of jointing tape.

INTERNAL PLASTERING

710 APPLICATION GENERALLY

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

715 FLATNESS/ SURFACE REGULARITY

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

720 DUBBING OUT

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

725 UNDERCOATS GENERALLY

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

777 SMOOTH FINISH

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

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

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

TYPES OF COVERING

130 CARPET TILING

- Location: Refer to drawings ARC-DWG-SPR-NRB-CAP-0008-0013 and 0029.
- Base: Existing timber floor and existing concrete slab.
  - Preparation: As agreed on site.
- Fabricated underlay: Plywood as clause K11: 715A.
- Carpet tiles:
  - Manufacturer: Interface Europe Ltd, t/a Interface
    www.interface.com
    marketing@interface.com
    T: +44 (0)1274 690690
    F: +44 (0)1274 696158
    Shelf Mills, Shelf, Halifax, West Yorkshire. HX3 7PA.
    Product reference: Heuga 530.
  - Type: Tufted plain textured loop pile carpet tile.
  - BS EN 1307 classification:
    Category: Type 1
    Level of use class: 33.
    Luxury rating class: LC1.
  - Recycled content: None permitted.
  - Size: 500 x 500 mm.
  - Colour/ pattern: Black 6353.
- Method of laying: Fully adhere all tiles with release adhesive recommended by tile manufacturer..
- Accessories: Edging strip at thresholds.
- Other requirements: Sample to be provided prior to order and installation to varify match with adjacent building.

150 SHEETINGVinyl Flooring

- Location: Refer to drawings ARC-DWG-SPR-NRB-CAP-0008-0013 and 0029.
- Base: Existing timber floor and existing concrete slab.
  - Preparation: To be confirmed.
- Fabricated underlay: Plywood as clause K11: 715A.
- Flooring roll: Heterogeneous PVC to BS EN 649.
  - Manufacturer: Forbo Flooring Solutions.
    Product reference: Safetstep R12 85942.
  - BS EN 685 class: As specified by manufacturer.
  - Slip potential:
    Slip resistance value (SRV) (minimum)/ Pendulum test value (PTV) (minimum) to BS 7976: 36 dry.
    Surface roughness (Rz) (minimum) to BS 1134: 60 micrometres.
  - Recycled content: Contractor's choice.
  - Width: As recommended by manufacturer.
  - Thickness: 2mm.
  - Colour/ pattern: Mid-Grey 85942.
- Adhesive (and primer if recommended by manufacturer): As recommended by manufacturer.
- Seam welding: Solvent welding.
- Accessories: Coved skirtings as drawings ARC-DWG-SPR-NRB-CAD-0008-0013 and 0030-0031.
- Finishing: As recommended by manufacturer.
- Other requirements: Stainless steel cap to top of vinyl upstand skirting.

150A FLAT VINYL SKIRTINGTO TOILET AREAS

- Location: Refer to drawings ARC-DWG-SPR-NRB-CAP-0008-0039, 0043 and 0044.
- Base: Existing timber floor and existing concrete slab.
  - Preparation: To be confirmed.
- Fixing: In accordance with manufacturers recommendations.
  - Manufacturer: Armstrong Flooring.
    Product reference: Flat Skirting , 2mm thick.
  - Width: 100mm.
  - Thickness: 2mm.
  - Colour/ pattern: Standard Midnight.
- Adhesive (and primer if recommended by manufacturer): As recommended by manufacturer.
- Finishing: As recommended by manufacturer.
- Other requirements: None.

GENERAL REQUIREMENTS

210 WORKMANSHIP GENERALLY

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

340 CONDITIONING

- 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.
- 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

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

PREPARING BASES

420 EXISTING BASES

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

440 SUBSTRATES TO RECEIVE THIN COVERINGS

- Trowelled finishes: Uniform, smooth surface free from trowel marks and other blemishes. Abrade suitably to receive specified floor covering material.

460 SMOOTHING/ LEVELLING UNDERLAYMENT COMPOUND

- Type: Latex cement.
- Manufacturer: Watco.
  - Product reference: Flowtop.

470 BASES FROM WHICH EXISTING FLOOR COVERINGS HAVE BEEN REMOVED

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

520 TIMBER BOARDING/ STRIP FLOORING

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

560 PLYWOOD UNDERLAY

- Standard: An approved national standard.
- Bonding quality: To BS EN 314-2 class 1.
- Appearance: To BS EN 635 class N/A.
- Finish: Sanded.
- Thickness: 6 mm.
- Sheet size: 2400 x 1200 mm.
- Substrate: Existing floor boards securely fixed and acceptably level with no gross irregularities or protruding fasteners.
- Laying sheets: Stagger cross joints such that no joint within base and underlay is coincident and with a 0.5-1 mm gap between sheets.
- Fasteners: 25 mm ringed shank or twisted shank nails or divergent staples.
  - Spacing: Commencing at centre of one side of each sheet, at 150 mm grid centres over area of each sheet and at 100 mm centres along perimeter, set in 12 mm from edge.
  - Placement: Driven with heads set flush with surface, and not projecting through underside of base. Not deformed.

LAYING COVERINGS

610 SETTING OUT TILES

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

640 ADHESIVE FIXING GENERALLY

- Adhesive type: As specified, as recommended by covering/ underlay manufacturer or as approved.
- Primer: Type and usage as recommended by adhesive manufacturer.
- Application: As necessary to achieve good bond.
- Finished surface: Free from trowel ridges, high spots caused by particles on the substrate, and other irregularities.

720 DOORWAYS

- Joint location: On centre line of door leaf.

750 STAIR NOSINGS AND TRIMS

- Manufacturer: Vulcan Architectural
  Vulcan Cladding Systems
  4 Imperial Way Croydon CR0 4RR
  Tel: 020 8681 0617
  Email: sales@vulcanarchitectural.com.
  - Product reference: Vulcan VUL 132C.
- Material/ finish: Extruded aluminium nosing with with replacable GRP inserts.
- Fixing: Secure, level and with mitred joints. Adjusted to suit thickness of covering with continuous packing strips of hardboard or plywood. Nosings and packing strips bedded in gap-filling adhesive recommended by nosing manufacturer.
  - Screw fixing with matching plugs: Not required.

COMPLETION

820 FINISHINGLINOLEUM FLOORING

- Cleaning operations:
  - Wash floor with water containing neutral (pH 6-9) detergent. If necessary, lightly scrub heavily soiled areas.
  - Rinse with clean water, removing surplus to prevent damage to adhesive. Allow to dry.
- Emulsion polish: Two coats of a type recommended by covering manufacturer.

880 WASTE

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

M60
Painting/ clear finishing

M60 Painting/ clear finishing

COATING SYSTEMS

110 EMULSION PAINTRefer to Room Data Sheets/Finishes Schedule

- Manufacturer: Refer to Room Data Sheets/Finishes Schedule - ICI Paints, Wexham Road, Slough. SL2 5DS. Tel: 0870 242 1100. Web: www.duluxtrade.co.uk. .
  - Product reference: Dulux Trade, Vinyl Matt Emulsion .
- Surfaces: Refer to Room Data Sheets/Finishes Schedule - New Walls, Ceilings, Plaster Cornices .
  - Preparation: Preparation: Ensure surfaces are sound, clean, dry and free from all defective or poorly adhering material, dirt, grease and paint. Carefully scrape back to a firm edge all areas of blistered, poorly adhering or defective coatings. Where necessary wash the surface to remove dirt, grease and powdery or dusty residues. Rinse with clean water and allow to dry. Powdery and friable surface coatings such as soft distempers etc. should be completely removed by scraping, brushing and washing. Allow the surface to fully dry before proceeding. Where appropriate, rub down sound areas to produce the necessary key for good adhesion (this is particularly important when applying water-based systems to previous coatings that are known, or suspected to be, solvent-based) and feather broken edges of existing coatings. Wipe off with a damp, lint free cloth, to avoid dust.
    Dust off. Make good open joints, cracks, holes and other imperfections with Interior Filler. Allow such making good to dry out thoroughly. Rub down smooth to match surrounding area and dust off.
    Clean metal fixings, nail heads, etc. with ICI 801 Oil and Grease Remover if necessary.
    For light oil and grease contamination, dilute with an equal amount of clean water. For heavy deposits, it should be used neat. The solution must be brushed on liberally, followed by scrubbing with a stiff brush. Rinse with clean water to remove residues. Allow to fully dry. (Note this product is described as Harmful. Read the Safety, Health & Environmental Information on the container before using this product) . .
- Initial coats: As recommended by manufacturer .
  - Number of coats In accordance with manufacturer's recommendations .
- Undercoats: As recommended by manufacturer .
  - Number of coats: In accordance with manufacturer's recommendations .
- Finishing coats: Matt vinyl .
  Number of coats: In accordance with manufacturer's recommendations .

130A GLOSS PAINTRefer to Room Data Sheets/Finishes Schedule - to Timber

- Manufacturer: Refer to Room Data Sheets/Finishes Schedule - ICI Paints, Wexham Road, Slough. SL2 5DS. Tel: 0870 242 1100. Web: www.duluxtrade.co.uk. .
  - Product reference: Dulux Trade EcosureFinish .
- Surfaces: Timber surfaces .
  - Preparation: Preparation: Ensure surfaces are sound, dry and free from all defective or poorly adhering material, dirt, grease, wax or oil.
    Avoid damaging factory applied coatings.
    Carefully scrape back to a firm edge all areas of poorly adhering or defective coatings and rub down to feather broken edges.
    Wash down with a suitable detergent solution to remove dirt, chalking paint, corrosion products and other contaminants. Rinse off with clean water and allow to dry.
    Rub down sound paintwork with a suitable abrasive to remove nibs and to provide a mechanical key taking care to avoid exposing timber on sharp edges. Dust off.
    Thoroughly clean down timber surfaces to remove all dirt, grease and surface contaminants.
    Wash down previously coated surfaces with soap and water, detergent solution or suitable solvent. Whilst wet rub down the surfaces with a suitable abrasive working in the direction of the grain to produce the necessary key for good adhesion. Finally rinse down and allow to dry. Remove oils from surface by wiping with White Spirit.
    Carefully abrade MDF surfaces with a fine grade of waterproof abrasive paper. Remove any furred edges, round all arrises, and avoid scratching the smooth finish. Dust off.
    Ensure surfaces are dry and clean before proceeding.
    Completely remove all incompatible, blistered or failed existing paint coatings - where flaking has occurred or coatings are defective, the entire member or section should be stripped back to the nearest joint.
    Open-up all joints which are not tight fitting and rake out thoroughly.
    Cut out and replace areas of rotten wood and replace with suitably preservative treated wood.
    Abrade in the direction of the grain to remove any grey denatured timber, raised grain and round all sharp edges to a 3 mm radius, to produce a smooth, clean surface, taking care not to damage the timber, and dust off.
    Ensure all surfaces are fully dry before proceeding.
    Hack out all cracked or defective glazing putties and remove all defective or loose beading. Clean the rebates and apply a coat of primer to all bare areas. Similarly, treat beading and any new wood which is to be spliced-in on all faces and edges, i.e. rub down and prime.
    Treat any knots in wood by wiping the surface with a cloth soaked in white spirit or methylated spirit to carefully remove any resin exudation and allow to dry fully. Apply 2 thin coats of Dulux Trade Knotting Solution by brush, and allow to harden. For best results on highly resinous wood, 2 coats may be necessary. Allow a minimum drying

time of 10-15 minutes between coats in normal drying conditions. Do not apply in

extremes of temperature. Ensure all surfaces are fully dry before proceeding with further

treatment/ coatings (Note the knotting solution is described as Highly Flammable. Read

the Safety, Health & Environmental Information on the container before using this product). Serious or troublesome knots should be cut out and replaced with sound wood.

Make good all nail-holes, open joints and open grain and other surface defects with the

appropriate Interior Filler. Allow making good to dry before being rubbed down smooth and dusted off. .

Initial coats: IDulux Trade Wood Primer.

- Number of coats: 1 coat.
- Application: Prime all bare timber, including bare areas of existing glazing rebates, and

any areas where existing basecoat treatments have been exposed for more than 6 weeks. Apply by brush (do not spray), thinned up to 1 part White Spirit to 10 parts of

paint. Stir thoroughly before use. Allow a minimum drying time of 4-6 hours (recoatable

in 16-24 hours) in normal drying conditions.

" Undercoats: Dulux Trade Undercoat.

- Number of coats: 1 coat.
- Application: By brush or roller (do not spray). Stir thoroughly before use. Where thinning

is required, add up to 1 part White Spirit to 10 parts of paint. Allow a minimum drying

time of 6-16 hours before applying gloss finish coats in normal drying conditions. .

- Number of coats: As recommended by manufacturer .

• Undercoats: As recommended by manufacturer .

- Number of coats: In accordance with manufacturer's recommendations .

• Finishing coats: Dulux Trade Ecosure Gloss Finish.

- Number of coats: 2 Coats - see schedule.
- " Application: By brush or roller (do not spray), applied to give a minimum wet film thickness

of 45 microns per coat, giving a minimum dry film thickness of 25 microns per coat. Stir

thoroughly before use. Where thinning is required, add up to 1 part White Spirit to 10 parts

of paint. Allow a minimum drying time of 16 hours between coats (touch dry in 4-6 hours) in

normal drying conditions. .

- Number of coats: As recommended by manufacturer .

150 EGGSHELL/ SATIN PAINTRefer to Room Data Sheets/Finishes Schedule

- Manufacturer: ICI Paints, Wexham Road, Slough. SL2 5DS. Tel: 0870 242 1100. Web: www.duluxtrade.co.uk. .
  - Product reference: Dulux Trade Diamond Eggshell Finish .
- Surfaces: Refer to Room Data Sheets/Finishes Schedule - Existing/New internal timber trims, skirtings, dado, picture rails, door frames, doors, timber cornices .
  - Preparation: Degrease and abrade to provide key and Remove existing gloss paint .
- Initial coats: As recommended by manufacturer .
  - Number of coats: In accordance with manufacturer's recommendations .
- Undercoats: As recommended by manufacturer .
  - Number of coats: In accordance with manufacturer's recommendations .
- Finishing coats: In accordance with manufacturer's recommendations .
  Number of coats: In accordance with manufacturer's recommendations .

170A MASONRY COATINGRefer to Room Data Sheets/Finishes Schedule - to blockwork surfaces .

- Manufacturer: ICI Paints, Wexham Road, Slough. SL2 5DS. Tel: 0870 242 1100. Web: www.duluxtrade.co.uk. .
  - Product reference: Dulux Trade Weathershield Smooth Masonry Paint .
- Surfaces: Internal blockwork .
  - Preparation: Brush down to remove surface contaminants and Remove loose and spalled material and wash down .
- Initial coats: As recommended by manufacturer .
  - Number of coats: In accordance with manufacturer's recommendations .
- Undercoats: As recommended by manufacturer .
- Finishing coats: In accordance with manufacturer's recommendations .

195 SPECIAL COATINGIntumescent paint.

- Manufacturer:
  Envirograf
  Envirograf House,
  Barfrestone,
  Daver,
  Kent, CTl 5 7JG
  Tel: A1 304 842555
  Fax: 01 304 842666
  Email: sales @ envirograf.com
  URL: www.envirograf.com.
  - Product reference: Fire Resistant Smooth Finish For Upgrading Plasterboard and Lath-and-plaster Ceilings
    to one hour protection - product 105 - EP/CP.
- Surfaces: To all existing lath and plaster walls and ceilings.
  - Preparation: Wash down and degrease.
- Initial coats: As recommended by manufacturer.
  - Number of coats: As recommended by manufacturer.
- Undercoats: As recommended by manufacturer.
  - Number of coats: As recommended by manufacturer.
- Finishing coats:
  - Type: As recommended by manufacturer.
  - Number of coats: As recommended by manufacturer.
  - Slip resistance value - water wet (minimum): Not applicable .

195A SPECIAL COATINGINTERNAL MINERAL PAINT.

- Manufacturer:
  KEIM MINERAL PAINTS LTD
  Santok Building
  Deer Park Way, Donnington Wood
  Telford
  Shropshire TF2 7NA
  Tel: 01952 231250.
  - Product reference: KEIM ECOSIL-ME.
- Surfaces: To all existing/new lime plaster walls and ceilings.
  - Preparation: All loose, flaking and unstable material must be identified and then thoroughly removed using stiff brushes and broad bladed scrapers to get back to a sound edge; these edges should then be feathered in. Ensure that any paint materials left remaining and the underlying substrate is sound and adhering well. Any gloss or shiny surfaces should be thoroughly flatted down using sand or emery paper to create a good key.

    Keim Dolomitspachtel
    Any cracks or where there is a need to equalise the surface should be filled using Keim Dolomitspachtel, a ready to use silicate mineral filler, brush or trowel applied to a pre-wetted surface and dressed back to the required level.

    On new/repaired surfaces we would suggest that a period of at least 15 days is allowed, prior to the application of Keim Paints.
    All surfaces must be thoroughly washed down with clean cold water to remove all surface dirt and dust. When all surfaces are clean, sound, wind dry, dust free and free from all surface contaminants, decoration using Keim Mineral Paints may proceed. .
- Initial coats: Keim Ecosil Grund Keim Ecosil Grund is a mineral silicate primer coat. Apply by brush or roller and work well into all surfaces. .
  - Number of coats: As recommended by manufacturer .
- Undercoats: As recommended by manufacturer .
  - Number of coats: As recommended by manufacturer .
- Finishing coats:
  - Type: Keim Ecosil-ME After a minimum period of 5 hours a final coat of Keim Ecosil-ME, mineral matt finish silicate based paint system, in the chosen colour, should be applied in a like manner, undiluted. .
  - Number of coats: As recommended by manufacturer .
  - Slip resistance value - water wet (minimum): Not applicable .

GENERAL

215 HANDLING AND STORAGE

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

240 SURFACES NOT TO BE COATED
As agreed with Network Rail & English Heritage .

250 SURFACES TO BE CLEANED BUT NOT COATED
As agreed with Network Rail & English Heritage .

280 PROTECTION

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

PREPARATION

400 PREPARATION GENERALLY

- Standard: In accordance with BS 6150.
- Suspected existing hazardous materials: Prepare risk assessments and method statements covering operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
- Preparation materials: Types recommended by their manufacturers and the coating manufacturer for the situation and surfaces being prepared.
- Substrates: Sufficiently dry in depth to suit coating.
- Efflorescence salts: Remove.
- Dirt, grease and oil: Remove. Give notice if contamination of surfaces/ substrates has occurred.
- Surface irregularities: Remove.
- Joints, cracks, holes and other depressions: Fill flush with surface, provide smooth finish.
- Dust, particles and residues from preparation: Remove and dispose of safely.
- Water based stoppers and fillers:
  - Apply before priming unless recommended otherwise by manufacturer.
  - If applied after priming: Patch prime.
- Oil based stoppers and fillers: Apply after priming.
- Doors, opening windows and other moving parts:
  - Ease, if necessary, before coating.
  - Prime resulting bare areas.

440 PREVIOUSLY COATED SURFACES GENERALLY

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

461A PREVIOUSLY COATED WOOD

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

471 PREPRIMED WOOD

- Areas of defective primer: Take back to bare timber.

481 UNCOATED WOOD

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

490 PREVIOUSLY COATED STEEL

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

570 UNCOATED MASONRY/ RENDERING

- Loose and flaking material: Remove.

580 UNCOATED PLASTER

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

590 UNCOATED PLASTERBOARD

- Depressions around fixings: Fill with stoppers/ fillers.

622 ORGANIC GROWTHS

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

645 SEALING INTERNAL MOVEMENT JOINTS

- General: To junctions of walls and ceilings with architraves, skirtings and other trims.
- Sealant: Water based acrylic.
  - Manufacturer: Contractor's choice.
    Product reference: Contractor's choice.
  - Preparation and application: As section Z22.

APPLICATION

711 COATING GENERALLY

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

730 WORKSHOP COATING OF CONCEALED JOINERY SURFACES

- General: Apply coatings to all surfaces of components.

M61
Intumescent coatings for fire protection of steelwork

M61 Intumescent coatings for fire protection of steelwork

PROTECTIVE COATING SYSTEMS

120 ON SITE COATING TO EXISTING STEELINTERNALLY

- Use/ Location: Exposed face of all beams.
- Fire resistance to BS 476-21: 60 minutes.
- Preparation: Manual cleaning, as clause 330.
- Primer:
  - Manufacturer: Envirograf.
  Product reference: As recommended by manufacturer.
  - Dry film thickness: As recommended by manufacturer.
- Intumescent coat:
  - Manufacturer: Envirograf.
  Product reference: Intumescent Coatings For Steel Protection-product 83 - EP/FS/INT.
  - Finish: Visible areas: High decorative, as clause 460.
- Top sealer coat: Type recommended by intumescent coating manufacturer.
  - Dry film thickness: As recommended by manufacturer.
  - Colour: To be agreed with Network Rail.
- Bolt head/ nut protection: As main steelwork.

GENERAL REQUIREMENTS

205 VALIDATION OF MATERIALS

- Project specific evaluation of intumescent coating materials:
  - Standard: To BS 8202-2, clause 4.
  - Test results: Submit on request.

210 WORKING PROCEDURES

- Standard: To BS 8202-2.
- Give notice: Before commencing surface preparation and coating application.
- Quality control: Record project specific procedures for surface preparation and coating application.

215 WORKING CONDITIONS

- General: Maintain suitable temperature, humidity and air quality during coating application and drying.
- Surfaces to be coated: Clean and dry at time of coating application.

270 INSPECTION

- Permit intumescent coating manufacturer to:
  - Inspect work in progress.
  - Inspect quality control records.
  - Take dry film thickness and other measurements.
  - Take samples of coating products.
- Intumescent coating manufacturer's inspection reports: Submit without delay.

PREPARATION OF SURFACES

330 EXISTING STEEL - MANUAL CLEANING

- Preparation: Remove oil and grease.
- Finish: To BS EN ISO 8501-1, preparation grade St2. Leave a clean but unpolished dry surface.
- Primer: Apply as soon as possible after cleaning and before gingering or blackening appears.

APPLICATION OF COATINGS

460 HIGH DECORATIVE FINISH

- Definition: High standard of evenness, smoothness and gloss when viewed from a minimum distance of 2 m.

490 TOP SEALER COAT

- Application: To achieve dft recommended by manufacturer and to give an even, solid, opaque appearance, free from runs, sags and other visual defects.

530 RECORDS OF COATED STEEL

- On completion of intumescent coating work, submit:
  - Accurate surface preparation and coating application records.
  - Fire resistance certificates.
  - Intumescent coating manufacturer's recommendations for maintenance and overcoating.

N
Furniture/Equipment

N11
Domestic kitchen fittings, furnishings and equipment

N11 Domestic kitchen fittings, furnishings and equipment

PRODUCTS

310 FITTED BASE UNITSTo new second floor tea point. See drawing ARC-DWG-SPR-NRB-CAD-0045

- Standard: To BS 6222 -2 and -3, and BS EN 14749.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Structural performance: To BS 6222-2, test level G.
- Dimensions: To BS EN 1116.
- Surface finishes: To BS 6222-3.
- Doors and drawer fronts:
  - Material: Solid MDF as Laminate Formica F2255.
  - Finish and colour: Polar White.
  - Edges: Laminate Formica F2255.
  - Other requirements: TBC.
- Side panels, plinths and shelves:
  - Material: Solid MDF as Laminate Formica F2255.
  - Finish and colour: Polar White.
  - Edges: Laminate Formica F2255.
- Accessories: Legs and plinths, end panel.

340 WORKTOPS To new worktop within second floor tea point. See drawing ARC-DWG-SPR -NRB-CAD-0045

- Standard: To manufacturer's standard.
- Manufacturer: Contractor's choice.
  - Product reference: Arena Stone AR616 Bianco Puro.
- Material: Quartz Stone.
- Dimensions: To be agreed on site.
- Exposed edges: 2mm Arris Edge to front face.
- Support: See Clause N11 310.
- Other requirements: None.

350 SINKS, TAPS, TRAPS AND WASTES 2no. sinks to new worktop within second floor tea point. See drawing ARC-DWG-SPR-NRB-CAD-0045

- Sinks:
  - Standard: To BS EN 13310.
  - Manufacturer: Contractor's choice.
  Product reference: Contractor's choice.
  - Configuration: See drawing ARC-DWG-SPR-NRB-CAD-0045.
  - Overall size: 1000 x 600.
  - Material: Stainless steel .
  Colour and finish: Brushed steel .
- Tap/ chainstay/ overflow holes: One tap hole, centre per sink..
- Taps: Mixer.
  - Manufacturer: Contractor's choice.
  Product reference: Contractor's choice.
  - Operation: Contractor's choice.
  - Material: Chromed steel.
- Wastes: Pop up.
  - Standard: To BS EN 274-1, -2 and -3.
  - Manufacturer: Contractor's choice.
  Product reference: Contractor's choice.
  - Size: To fit sink .
  - Material: Chromed steel.
  - Tail: Slotted.
- Traps: Tubular, P type.
  - Standard: To BS EN 274-1, -2 and -3.
  - Manufacturer: Contractor's choice.
  Product reference: Contractor's choice.
  - Size: To fit waste.
  - Material: Plastic.
  - Depth of seal (minimum): 75 mm.
- Accessories: TBC.

390 SEALANT

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

EXECUTION

610 MOISTURE CONTENT OF WOOD AND WOOD BASED BOARDS

- Control and monitoring:
  - Method statement: Submit.

620 INSTALLATION GENERALLY

- Fixings and adhesives: As section Z20.
- Services: As Engineering Services specification.

630 INSTALLING UNITS AND WORKTOPS

- General: Well fitting, stable and secure.

650 INSTALLING SINKS, TAPS AND WASTES

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

660 SEALANT BEDDING AND POINTING

- Application: As section Z22.
- Bedding: Sink to top of worktop.
- Pointing: Between units and splash backs.

670 INSTALLING TRIMS AND MOULDINGS

- Lengths: Un-jointed between angles or ends of runs.
- Angle joints: Mitred.

COMPLETION

910 GENERAL

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

920 APPLIANCE COMMISSIONING

- Appliance operation, functions and controls: Verify.
- Documentation: Submit guarantees, instruction manuals, etc

N13
Sanitary appliances and fittings

N13 Sanitary appliances and fittings

PRODUCTS

300A WCS AND CISTERNSTO TOILETS

- Type: WC Suite - WC Pan E000501.
- Pan:
  - Standards: To BS EN 33 and BS EN 997.
  - Manufacturer: Ideal standards (UK) Ltd.
    Product reference: Submit proposals.
  - Material: Vitreous china, white.
- Seat and cover:
  - Manufacturer: Ideal standards (UK) Ltd.
    Product reference: E002101.
  - Finish/ Colour: To match pan.
- Pan connector:
  - Standard: To BS 5627.
  - Manufacturer: Submit proposals.
    Product reference: Submit proposals.
  - Colour: To match pan.
- Cistern:
  - Manufacturer: Ideal standards (UK) Ltd.
    Product reference: Submit proposals.
  - Finish/ Colour: Not applicable.
- Flushing arrangement: Sensor Control S8112AA.
  - Manufacturer: Ideal standards (UK) Ltd.
  - Operating control: Proximity sensor.
- Flush pipe: Concealed.
  - Manufacturer: Contractor's choice.
    Product reference: Contractor's choice.
  - Material: Plastics, white.
- Accessories: Concealed support frames.

300B WCS AND CISTERNSTO AMBULANT TOILETS

- Type: WC Suite - As WC Suite, but tilet seat to be set at 450mm high .
- Pan:
  - Standards: To BS EN 33 and BS EN 997.
  - Manufacturer: Ideal standards (UK) Ltd.
    Product reference: Submit proposals.
  - Material: Vitreous china, white.
- Seat and cover:
  - Manufacturer: Ideal standards (UK) Ltd.
    Product reference: E002101.
  - Finish/ Colour: To contrast - colour TBC.
- Pan connector:
  - Standard: To BS 5627.
  - Manufacturer: Submit proposals.
    Product reference: Submit proposals.
  - Colour: To match pan.
- Cistern:
  - Manufacturer: Ideal standards (UK) Ltd.
    Product reference: Submit proposals.
  - Finish/ Colour: Not applicable.
- Flushing arrangement: Sensor Control S8112AA.
  - Manufacturer: Ideal standards (UK) Ltd.
  - Operating control: Proximity sensor.
- Flush pipe: Concealed.
  - Manufacturer: Contractor's choice.
    Product reference: Contractor's choice.
  - Material: Plastics, white.
- Accessories: Concealed support frames.

300C WCS AND CISTERNSTO DISABLED TOILETS

- Type: WC Suite - WC Pan S6956 DOC M Contour 21.
- Pan:
  - Standards: To BS EN 33 and BS EN 997.
  - Manufacturer: Ideal standards (UK) Ltd.
    Product reference: Submit proposals.
  - Material: Vitreous china, white.
- Seat and cover:
  - Manufacturer: Ideal standards (UK) Ltd.
    Product reference: E0021.
  - Finish/ Colour: To contrast - colour TBC.
- Pan connector:
  - Standard: To BS 5627.
  - Manufacturer: Submit proposals.
    Product reference: Submit proposals.
  - Colour: To match pan.
- Cistern:
  - Manufacturer: Ideal standards (UK) Ltd.
    Product reference: Submit proposals.
  - Finish/ Colour: Not applicable.
- Flushing arrangement: Sensor Control S8112AA.
  - Manufacturer: Ideal standards (UK) Ltd.
  - Operating control: Proximity sensor.
- Flush pipe: Concealed.
  - Manufacturer: Contractor's choice.
    Product reference: Contractor's choice.
  - Material: Plastics, white.
- Accessories: Concealed support frames.

315A URINALS AND AUTO FLUSHING CISTERNSTO TOILETS

- Urinals:
  - Manufacturer: Contractor's choice.
    Product reference: Contour Urinal code S6110, 67cm.
  - Material: Vitreous china, white.
- Wastes: Grated, domed.
  - Standards: To BS EN 274-1, -2 and -3.
  - Manufacturer: Contractor's choice.
    Product reference: Submit proposals.
  - Material: Stainless steel.
  - Tail: Unslotted.
- Traps: Bottle.
  - Standards: To BS EN 274-1, -2 and -3.
  - Manufacturer: Contractor's choice.
    Product reference: Submit proposals.
  - Material: Stainless steel.
  - Depth of seal (minimum): 75 mm.
- Cistern, complete with automatic siphon, lid, supports and fixings: Concealed.
  - Standard: To BS 1876.
  - Manufacturer: Contractor's choice.
    Product reference: Submit proposals.
  - Flush volume: 9 L.
  - Operating control: Proximity sensor.
  - Flush pipe: Concealed.
    Material: Stainless steel.
- Accessories: Concealed support frame and Division panels - Armitage Shanks Aridian S6120.

335A WASH BASINSTO TOILETS

- Manufacturer: Armitage Shanks.
  - Product reference: Portman S2254.
- Size: 50x40cm.
- Material: Vitreous china, white.
- Tap/ Chainstay/ Overflow holes: One tap hole, right hand.
- Water supply fittings: Thermostatic basin mixer tap - Ideal Standards Contour 21 Therm mixer, Single long lever.
  Wastes: Chain and plug.
  - Standards: To BS EN 274-1, -2 and -3.

  Traps: Bottle.
  - Standards: To BS EN 274-1, -2 and -3.
  - Manufacturer: Contractor's choice.

  Product reference: Submit proposals.
  - Size: DN 40.
  - Material: Plastics, chrome plated.

  Depth of seal (minimum): 75 mm.

335B WASH BASINSTO TOILETS - UNDERMOUNTED BASIN

- Manufacturer: Dupont.
  - Product reference: Dupont 810 Corian bowl basin see drawing ARC-DWG-SPR-NRB-CAD-0043 and 0044.
- Size: 469x383cm.
- Material: Corian.
- Tap/ Chainstay/ Overflow holes: One tap hole, right hand.
- Water supply fittings: Thermostatic basin mixer tap - Ideal Standards Contour 21 Therm mixer, Single long lever.
  Wastes: Chain and plug.
  - Standards: To BS EN 274-1, -2 and -3.

  Traps: Bottle.
  - Standards: To BS EN 274-1, -2 and -3.
  - Manufacturer: Contractor's choice.

  Product reference: Submit proposals.
  - Size: DN 40.
  - Material: Plastics, chrome plated.
  - Depth of seal (minimum): 75 mm.

429 CLOTHES HOOKSTO TOILETS

- Manufacturer: Scott Beavan Radius .
  - Product reference: Radius F50.0053.10.
- Material: stainless steel.
- Finish/ Colour: self.

436 HANDRAILS AND GRAB BARSTO AMBULANT CUBICLES

- Manufacturer: Armitage Shanks.
  - Product reference: S6730, S6765/S6912.
- Diameter: 32 mm.
- Material: As manufacturers specification.
- Finish/ Colour: TBC.

438 MIRRORSTO TOILETS

- Manufacturer: Caradan Twyfords Ltd.
  - Product reference: Submit proposals.
- Material: As manufacturers specification.
- Finish/ Colour: Self.

442A RECESSED PAPER TOWEL DISPENSERS & WASTE RECEPTACLE TO TOILETS
- Manufacturer: Bobrick.
  - Product reference: B-36903 Recessed wall mounted.
- Material: Satin Stainless Steel.
- Finish/ Colour: self.

458 SOAP DISPENSERSTO TOILETS
- Manufacturer: Bobrick.
  - Product reference: B-8601 Panel Mounted.
- Material: Satin Stainless Steel.
- Finish/ Colour: self.

462 TOILET PAPER HOLDERSTO TOILET CUBICLES
- Manufacturer: Saville Stainless Ltd.
  - Product reference: SS/BUU1 E Panel Mounted.
- Material/ finish: Satin Stainless Steel.
- Finish/ Colour: self.

472A HAND DRIERSWARM AIR HANDDRYERS
- Standard: To BS EN 60335-2-23.
- Type: Warm air.
- Manufacturer: Saville Stainless Ltd.
  - Product reference: SS/AS2000 Steeltronic.
- Operation: Automatic.
- Heater power rating: 2.0 kW.
- Enclosure: Stainless steel.

474 WASTE BINSTO TOILETS
- Manufacturer: Saville Stainless Ltd.
  - Product reference: SS-ABU50E-P Self Closing waste bin (50 litres).
- Material: Stainless steel.
- Finish/ Colour: self.

EXECUTION

610 INSTALLATION GENERALLY
- Assembly and fixing: Surfaces designed to falls to drain as intended.
- Fasteners: Nonferrous or stainless steel.
- Supply and discharge pipework: Fix before appliances.
- Fixing: Fix appliances securely to structure. Do not support on pipework.
- Jointing and bedding compounds: Recommended by manufacturers of appliances, accessories and pipes being jointed or bedded.
- Appliances: Do not use. Do not stand on appliances.
- On completion: Components and accessories working correctly with no leaks.
- Labels and stickers: Remove.

613 COMPATIBILITY OF COMPONENTS
- General: Each sanitary assembly must consist of functionally compatible components, preferably obtained from a single manufacturer.
  Exceptions: none.

620 NOGGINGS AND BEARERS
- Noggings, bearers, etc. to support sanitary appliances and fittings: Position accurately. Fix securely.

630 TILED BACKGROUNDS OTHER THAN SPLASHBACKS

- Timing: Complete before fixing appliances.
- Fixing appliances: Do not overstress tiles.

650 INSTALLING WC PANS

- Floor mounted pans: Screw fix and fit cover caps over screw heads. Do not use mortar or other beddings.
- Seat and cover: Stable when raised.

670 INSTALLING CISTERNS

- Cistern operating components: Obtain from cistern manufacturer.
  - Float operated valve: Matched to pressure of water supply.
- Overflow pipe: Fixed to falls and located to give visible warning of discharge.
  Location: Agreed, where not shown on drawings.

710 INSTALLING TAPS

- Fixing: Secure against twisting.
- Seal with appliance: Watertight.
- Positioning: Hot tap to left of cold tap as viewed by user of appliance.

720 INSTALLING WASTES AND OVERFLOWS

- Bedding: Waterproof jointing compound.
- Fixing: With resilient washer between appliance and backnut.

N15
Internal fire and safety signage systems

N15 Internal fire and safety signage systems

PRODUCTS

305 INTERNAL SIGNAGE PRODUCTS GENERALLY
- Standard: To BS 559.
- Colorimetric and photometric properties: To BS 5378-2.

350 RIGID PLASTIC SIGNSFOR ESCAPE ROUTE SIGNS IN ACCORDANCE WITH DRAWINGS ARC-DWG-SPR-NRB-CAP-0005-0007
- Manufacturer: Stocksigns Ltd or equal approved
  Stocksigns Ltd
  Ormside Way,
  Redhill,
  Surrey, RH1 2LG
  Tel: +44 (0)1737 764 764
  Web: www.stocksigns.co.uk .
  - Product reference: In accordance with drawings ARC-DWG-SPR-NRB-CAP-0005-0007 .
- Size: 450mm x 150mm x 1mm .
- Finish: Manufacturer's standard .
- Perimeters: Manufacturer's standard .

EXECUTION

610 FIXING SIGNS GENERALLY
- Installation: To BS 559.
  - Secure, plumb and level.
- Fasteners and adhesives: As section Z20.
- Strength of fasteners: Sufficient to support live and dead loads.
- Fasteners for external signs: Corrosion resistant material or with a corrosion resistant finish. Isolate dissimilar metals to avoid electrolytic corrosion.
- Fixings showing on surface of sign: Must not detract from the message being displayed.

COMPLETION

910 DOCUMENTATION
- Submit:
  - Manufacturer's maintenance instructions.
    Guarantees, warranties, test certificates, record schedules and logbooks.

P
Building fabric sundries

P10
Sundry insulation/ proofing work

P10 Sundry insulation/ proofing work

SUNDRY INSULATION/ PROOFING WORK

TYPES OF INSULATION

125A INSULATION LAID BETWEEN CEILING TIES/ JOISTS As shown on drawing ARC-DWG-SPR-NRB-CAP-0025
Manufacturer:
Isover Saint-Gobain
Tel: 0800 032 2555.
- Product reference: Spacesaver.

- Material: Glass Mineral wool to BS EN 13162.
- Recycled content: Contractor's choice.
- Thickness: 150 mm.
- Installation requirements:
  - Installation standard: As recommended by manufacturer.
  - Joints: Butted, no gaps.
  - Insulation at perimeter: Carried over wall plates.
  - Eaves ventilation: Unobstructed.
  - Service holes: Sealed, and debris removed before laying insulation.
  - Water cistern platforms: Not applicable.

140A INSULATION FITTED AT RAFTER LEVEL As shown on drawing ARC-DWG-SPR-NRB-CAD-0027
Manufacturer:
Kingspan Insulation Ltd
Pembridge
Leominster
Herefordshire
HR6 9LA
Tel: 01544 388 601
Fax: 01544 388 888
Email: info@kingspaninsulation.co.uk.
- Product reference: Kooltherm K7.

- Location: Between rafters.
- Material: Rigid polyurethane foam to BS EN 13165.
- Facing: As recommended by manufacturer.
- Recycled content: Contractor's choice.
- Thickness: To achieve current Building Regulations approval.
- Installation requirements:
  - General: Insulation to be friction fitted between rafters with no gaps.
  - Joints: Butted, no gaps.
  - Fasteners: Used where necessary to retain insulation and/ or prevent slumping.
  - Vapour control facing (if specified): Fit insulation with facing on warm side. Staple overlap (if provided) to underside of rafters; tape joints between adjacent overlaps using vapour impermeable adhesive tape.
  - Air space above insulation: Not restricted.
  - Eaves ventilation: Unobstructed.

320A BREATHER MEMBRANE At Rafter Level as shown on drawing ARC-DWG-SPR-NRB-CAD-0027

- Manufacturer:
  Kingspan Insulation Ltd
  Pembridge
  Leominster
  Herefordshire
  HR6 9LA
  Tel: 01544 388 601
  Fax: 01544 388 888
  Email: info@kingspaninsulation.co.uk.
  - Product reference: Nilvent.

  Thickness:
  0.47 mm.
  Water Vapour Resistance:
  0.17 MN-s/g (tested in accordance with BS 3177).
  Liquid Water Penetration Resistance:
  Achieves a resistance > 2m (tested in accordance with BS EN 20811).
  Air Permeability:
  Airtight when tested of normal building pressures (in accordance with ISO 5636-3).
  UV Heat ageing:
  Achieves class A (the highest performance) when tested in accordance with prEN 13859.
  Installation requirements:
  - Setting out: Joints minimized. Membrane to form a continuous barrier to prevent water, snow and wind blown dust reaching the substrate.
  - Method of fixing: As recommended by manufacturer.
  - Joints: Lapped 100 mm minimum horizontally and 150 mm minimum vertically.
  - Openings: Membrane fixed to reveals.
  - Bottom edges: Membrane lapped over flashings, sills, etc. to allow free drainage to the exterior.
- Penetrations: Sealed.

P12
Fire stopping systems

P12 Fire stopping systems

GENERAL

130 FIRE STOPPING SYSTEM TO INDIVIDUAL SERVICES PENETRATIONSTHROUGH WALLS
- Fire resistance: 60 minute integrity.
- Penetration seal: Submit proposals to suit service peneration.
  - Size: to suit service peneration.
- Capping sealant: Submit proposals.
  Colour: Submit proposals.

160 LINEAR GAP SEALINGTo all gaps within compartments
- Fire resistance: 60 minute integrity.
- Gap width or height (nominal): As agree with the Fire Officer.
- Gap filler: Submit proposals.
- Capping sealant: Submit proposals.
  Colour: Submit proposals.

PRODUCTS

305 PRODUCT CERTIFICATION
- Certification: For products specified generically, submit evidence of compliance with the specification.
- Acceptable evidence: Listing in CERTIFIRE Register.

335 INTUMESCENT FOAM
- Manufacturer: Promat.
  - Product reference: Promafoam.

338 INTUMESCENT MASTIC
- Manufacturer: Promat.
  - Product reference: Promat PROMASEAL Intumescent Acrylic Sealant and Silicone Sealant.

360 MINERAL WOOL RIGID BATTS
- Standard: To BS EN 13162.
- Manufacturer: Promat.
  - Product reference: Promat PROMASEAL Fire Barriers.
- Recycled content: Contractor's choice.

EXECUTION

620 WORKMANSHIP GENERALLY
- Gaps: Seal gaps between building elements and services, to provide fire resistance and resist the passage of smoke.
- Adjacent surfaces: Prevent overrun of sealant or mortar on to finished surfaces.

660 APPLYING INTUMESCENT FOAM

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

710 INSTALLING MINERAL WOOL BATTS

- Installing batts: Fit tight into void between the penetrating services and the surrounding construction to form a solid bulkhead.
  - Brackets: Not applicable.

  Bracket fixing: Not applicable.
- Face of batts: Flush with the surface of wall, floor or soffit.
- Joints between batts: Close butt joints; seal with acoustic intumescent sealant.
- Gaps between services and bulkhead: Seal with fire resisting sealant.

745 APPLYING SEALANTS GENERALLY

- Application: As section Z22.

COMPLETION

910 CLEANING

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

920 INSPECTION

- Notice for inspection (minimum): 4 working days for the Fire Officer's inspection and approval .

P20
Unframed isolated trims/ skirtings/ sundry items

P20 Unframed isolated trims/ skirtings/ sundry items

110 SOFTWOODSKIRTINGS GENERALLY

- Quality of wood and fixing: To BS 1186-3.
  - Species: Contractor's choice.
  - Class: 1.
- Moisture content at time of fixing: 9-13%.
- Preservative treatment: Water-based microemulsion as section Z12, service life 30 years.
- Fire rating: Not applicable.
- Profile: To match existing.
  - Finished size: To match existing - samples to be provide.
- Finish as delivered: Prepared and primed.
- Fixing: Plugged, screwed and pelleted at 600mm centres.

510 INSTALLATION GENERALLY

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

P21
Door/ window ironmongery

P21 Door/ window ironmongery

GENERAL

121A IRONMONGERY FROM SINGLE PROPRIETARY RANGE
-

170 IRONMONGERY FOR FIRE DOORS
- Relevant products: Ironmongery fixed to, or morticed into, the component parts of a fire resisting door assembly.
- Compliance: Ironmongery included in successful tests to BS 476-22 or BS EN 1634-1 on door assemblies similar to those proposed.
  - Certification: Submit CERTIFIRE certificates .
- Melting point of components (except decorative non functional parts): 800°C minimum.

DOOR HANGING DEVICES

320A DOOR HINGESTo all new doors
- Refer to Door and Ironmongery Schedule drawings ARC-DWG-SPR-NRB-CAD-0035-0037

DOOR OPERATING DEVICES

410A OVERHEAD DOOR CLOSERSTo all new doors
- Standard: To BS EN 1154.
  - Door closing devices to fire/ smoke control doors: CE marked.
- Refer to Door and Ironmongery Schedule drawings ARC-DWG-SPR-NRB-CAD-0035-0037
- Operational adjustment:
  - Variable power: Matched to size, weight and location of doors.
  - Latched doors: Override latches and/ or door seals when fitted.
  - Unlatched doors: Hold shut under normal working conditions.
  - Closing against smoke seals of fire doors: Positive. No gaps.

515A DOOR LOCKSTo all new doors
- Standard: To BS EN 12209.
  Refer to Door and Ironmongery Schedule drawings ARC-DWG-SPR-NRB-CAD-0035-0037
- All door locks and locations to be agreed with Network Rail

571A EMERGENCY EXIT DEVICESRefer to Door and Ironmongery Schedule drawings ARC-DWG-SPR-NRB-CAD-0035-0037
- Standard: To BS EN 179.

577A PANIC EXIT DEVICESRefer to Door and Ironmongery Schedule drawings ARC-DWG-SPR-NRB-CAD-0035-0037
- Standard: To BS EN 1125.

DOOR FURNITURE

610A LEVER HANDLESRefer to Door and Ironmongery Schedule drawings ARC-DWG-SPR-NRB-CAD-0035-0037
- Standard: To BS EN 1906.

670A PUSH PLATESRefer to Door and Ironmongery Schedule drawings ARC-DWG-SPR-NRB-CAD-0035-0037

690A KICK PLATESRefer to Door and Ironmongery Schedule drawings ARC-DWG-SPR-NRB-CAD-0035-0037

710A ESCUTCHEONSRefer to Door and Ironmongery Schedule drawings ARC-DWG-SPR-NRB-CAD-0035-0037

P31
Holes, chases, covers and supports for services

P31 Holes, chases, covers and supports for services

EXECUTION

620 HOLES AND CHASES IN IN SITU CONCRETE

- Cast in: Holes larger than 10 mm diameter and chases.
- Cutting and drilling:
  - Permitted for holes not larger than 10 mm diameter.

  Not permitted for holes larger than 10 mm diameter except as indicated on drawings.

640 HOLES IN STRUCTURAL STEELWORK

- Cutting and drilling: Not permitted except as indicated on drawings.

650 HOLES, RECESSES AND CHASES IN MASONRY

- Locations: To maintain integrity of strength, stability and sound resistance of construction.
- Sizes: Minimum needed to accommodate services.
  - Holes (maximum): 300 x 300 mm.
- Walls of hollow or cellular blocks: Do not chase.
- Walls of other materials:
  - Vertical chases: No deeper than one third of single leaf thickness, excluding finishes.
  - Horizontal or raking chases: No longer than 1 m. No deeper than one sixth of the single leaf thickness, excluding finishes.
- Chases and recesses: Do not set back to back. Offset by a clear distance at least equal to the wall thickness.
- Cutting: Do not cut until mortar is fully set. Cut carefully and neatly. Avoid spalling, cracking and other damage to surrounding structure.

670 NOTCHES AND HOLES IN STRUCTURAL TIMBER

- General: Avoid if possible.
- Sizes: Minimum needed to accommodate services.
- Position: Do not locate near knots or other defects.
- Notches and holes in the same joist: Minimum 100 mm apart horizontally.
- Notches in joists: Locate at top. Form by sawing down to a drilled hole.
  - Depth (maximum): 0.125 x joist depth.
  - Distance from supports: Between 0.07 and 0.25 x span.
- Holes in joists: Locate on neutral axis.
  - Diameter (maximum): 0.25 x joist depth.
  - Centres (minimum): 3 x diameter of largest hole.
  - Distance from supports: Between 0.25 and 0.4 of span.
- Notches in roof rafters, struts and truss members: Not permitted.
- Holes in struts and columns: Locate on neutral axis.
  - Diameter (maximum): 0.25 x minimum width of member.
  - Centres (minimum): 3 x diameter of largest hole.
  - Distance from ends: Between 0.25 and 0.4 of span.

Z
Building fabric reference specification

Z11
Purpose made metalwork

Z11 Purpose made metalwork

PRODUCTS

310 MATERIALS GENERALLY

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

FABRICATION

515 FABRICATION GENERALLY

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

520 COLD FORMED WORK

- Profiles: Accurate, with straight arrises.

550 METAL STAIRCASE EXTENSIONFirst to Second Floors.

- This item is to be designed by others, with reference to drawings ARC-DWG-SPR-NRB-CAD-0040-0042

FINISHING

745 PREPARATION FOR APPLICATION OF COATINGS

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

Z20
Fixings and adhesives

Z20 Fixings and adhesives

PRODUCTS

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

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

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

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

390 ADHESIVES GENERALLY
- Standards:
  - Hot-setting phenolic and aminoplastic: To BS 1203.
  - Thermosetting wood adhesives: To BS EN 12765.
  - Thermoplastic adhesives: To BS EN 204.

410 POWDER ACTUATED FIXING SYSTEMS
- Types of fastener, accessories and consumables: As recommended by tool manufacturer.

EXECUTION

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

620 FIXING THROUGH FINISHES
- Penetration of fasteners and plugs into substrate: To achieve a secure fixing.

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

640 FIXING CRAMPS

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

670 PELLETED COUNTERSUNK SCREW FIXING

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

680 PLUGGED COUNTERSUNK SCREW FIXING

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

690 USING POWDER ACTUATED FIXING SYSTEMS

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

700 APPLYING ADHESIVES

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

Z21
Mortars

Z21 Mortars

CEMENT GAUGED MORTARS

110 CEMENT GAUGED MORTAR MIXES

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

120 SAND FOR SITE MADE CEMENT GAUGED MASONRY MORTARS

- Standard: To BS EN 13139.
- Grading: 0/2 (FP or MP).
  - Fines content where the proportion of sand in a mortar mix is specified as a range (e.g. 1:1: 5-6):
    Lower proportion of sand: Use category 3 fines.
    Higher proportion of sand: Use category 2 fines.
- Sand for facework mortar: Maintain consistent colour and texture. Obtain from one source.

135 SITE MADE LIME:SAND FOR CEMENT GAUGED MASONRY MORTARS

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

160 CEMENTS FOR MORTARS

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

180 ADMIXTURES FOR SITE MADE CEMENT GAUGED MORTARS

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

210 MAKING CEMENT GAUGED MORTARS

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

LIME:SAND MORTARS

310 LIME:SAND MORTAR MIXES

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

320 SAND FOR LIME:SAND MASONRY MORTARS

- Type: Sharp, well graded.
  - Quality, sampling and testing: To BS EN 13139.

  Grading/ Source: As specified elsewhere in relevant mortar mix items.

345 ADMIXTURES FOR HYDRAULIC LIME:SAND MORTARS

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

360 MAKING LIME:SAND MORTARS GENERALLY

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

400 MAKING HYDRAULIC LIME:SAND MORTARS

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

Z22
Sealants

EXECUTION

610 SUITABILITY OF JOINTS

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

620 PREPARING JOINTS

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

630 APPLYING SEALANTS

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