

OSP Architecture

Legal & General

Sports Pavilion (Mowbray)

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06-02-2026

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F10

Brick/ block walling

Clauses

Read in conjunction with Preliminaries and general conditions

5 Facing brickwork Main Building & Toilet Block

1. Description: Above DPC
2. Manufacturer: Weinerberger
 - 2.1. Product reference: Dorchester Red
3. Bricks: To [BS EN 771-1](#)
 - 3.1. Recycled content: None permitted
 - 3.2. Special shapes: Pistol Stretchers
4. Mortar: Light Grey as section Z21.
 - 4.1. Standard: To [BS EN 998-2](#)
 - 4.2. Mix: 1:1:6 cement:lime:sand
 - 4.2.1. Site batched and mixed mortar: 1:1:6 cement:lime:sand
 - 4.2.2. Mortar to BS EN 998-2: 1:1:6 cement:lime:sand 4 N/mm² (class M4)
5. Bond: Half lap stretcher
6. Joints: Flush

6 Clay bricks (Contrasting Brick) - Main Building (West & East Elevation) Only

1. Description: Above DPC
2. Manufacturer: [Forterra Building Products](#)
 - 2.1. Contact details
 - 2.1.1. Address: 5 Grange Park Court
Roman Way
Northampton
United Kingdom
NN4 5EA
 - 2.1.2. Telephone: [+44 \(0\)1604 707600](tel:+441604707600)
 - 2.1.3. Web: <https://www.forterra.co.uk/>
 - 2.1.4. Email: asktechnical@forterra.co.uk
 - 2.2. Product reference: County Red Smooth
3. Bricks: To [BS EN 771-1](#)
 - 3.1. Recycled content: None permitted
 - 3.2. Special shapes: None
4. Mortar: Light Grey as section Z21.
 - 4.1. Standard: To [BS EN 998-2](#)
 - 4.2. Mix: 1:1:6 cement:lime:sand
 - 4.2.1. Site batched and mixed mortar: 1:1:6 cement:lime:sand
 - 4.2.2. Mortar to BS EN 998-2: 1:1:6 cement:lime:sand 4 N/mm² (class M4)
5. Bond: Flemish bond
6. Joints: Flush

7 Glazed brickwork Main Building Only

1. Description: Above DPC
2. Manufacturer: Weinberger
 - 2.1. Product reference: Akoya Grey
3. Bricks: To [BS EN 771-1](#)
 - 3.1. Recycled content: None permitted
 - 3.2. Special shapes: None
4. Mortar: Light Grey as section Z21.
 - 4.1. Standard: To [BS EN 998-2](#)
 - 4.2. Mix: 1:1:6 cement:lime:sand
 - 4.2.1. Site batched and mixed mortar: 1:1:6 cement:lime:sand
 - 4.2.2. Mortar to BS EN 998-2: 1:1:6 cement:lime:sand 4 N/mm² (class M4)
5. Bond: Half lap stretcher
6. Joints: Flush

34 Loadbearing thermal break units Main Building Only

1. Bed course mortar generally:
 - 1.1. Manufacturer: [Marmox \(UK\) Ltd](#)
 - 1.1.1. Contact details
 - 1.1.1.1. Address: Caxton House
101-103 Hopewell Drive
Chatham
Kent
ME5 7NP
 - 1.1.1.2. Telephone: [+44 \(0\)1634 835290](tel:+44201634835290)
 - 1.1.1.3. Web: <https://www.marmox.co.uk/>
 - 1.1.1.4. Email: sales@marmox.co.uk
 - 1.1.2. Product reference: [Thermoblock](#)
 - 1.2. Third-party certification: BRE certified.
 - 1.3. Dimensions (nominal)
 - 1.3.1. Width: Refer to detail drawings
 - 1.4. Recycled content: 7%.
 - 1.5. Compressive strength (minimum): 9 N/mm².
 - 1.6. Thermal conductivity (maximum): 0.05 W/m·K.
 - 1.7. Thickness:
 - 1.8. Fire resistance (to EN 13164/ EN 1365-1): Class E, >120 minutes.
 - 1.9. Length: 600 mm.

36 Concrete common blockwork (below DPC) Main Building & Toilet Block

1. Description: To External Cavity / Internal Load Bearing Walls
2. Manufacturer: Forterra
 - 2.1. Product reference: Fenlite 1500 Background Aggregate Block
3. Blocks: To [BS EN 771-3](#)
 - 3.1. Product reference: Fenlite 1500 Background Aggregate Block
 - 3.2. Configuration: Group 1

- 3.3. Compressive strength: 7.3 N/mm²
- 3.4. Category: I
- 3.5. Freeze/ thaw resistance: Suitable for exposed external use below dpc
- 3.6. Thermal properties: Thermal conductivity: 0.61 W/mK
- 3.7. Recycled content: 50% (minimum) to [BS EN ISO 14021](#) 50% (minimum) to [BS EN ISO 14021](#)
- 3.8. Work sizes (length x width x height): 440 x 215 x 215 mm / 440 x 100 x 215 mm / 440 x 140 x 215 mm - refer to foundation drawing for thickness.
 - 3.8.1. Tolerance category: D1
- 3.9. Special shapes: Coursing blocks if required
- 3.10. Additional requirements: Bond strength: 7.3 N/mm²
- 4. Mortar: As section Z21.
 - 4.1. Standard: To [BS EN 998-2](#)
 - 4.2. Mix:
 - 4.2.1. Site batched and mixed mortar:
 - 4.2.2. Mortar to BS EN 998-2: 1:1¼:3 cement:lime:sand 12 N/mm² (class M12)
- 5. Bond: Half lap stretcher

37 Concrete common blockwork (Above DPC) Main Building Only - For plaster/render finish

- 1. Description: Non-Load Bearing Walls
- 2. Manufacturer: Forterra
 - 2.1. Product reference: Thermalite Aircrete Floorblock
- 3. Blocks: To [BS EN 771-3](#)
 - 3.1. Product reference: Fenlite 1500 Background Aggregate Block
 - 3.2. Configuration: Group 1
 - 3.3. Compressive strength: 7.3 N/mm² / 3.6 N/mm² - refer to structural engineer's drawings for strength of walls
 - 3.4. Category: I
 - 3.5. Freeze/ thaw resistance: Not to be left exposed
 - 3.6. Thermal properties: Thermal conductivity: 0.16W/mK
 - 3.7. Recycled content: 50% (minimum) to [BS EN ISO 14021](#)
 - 3.8. Work sizes (length x width x height): 440 x 100 x 215 mm / 440 x 140 x 215 mm - refer to Ground Floor drawing for thickness.
 - 3.8.1. Tolerance category: D1
 - 3.9. Special shapes: None
 - 3.10. Additional requirements: Reaction to fire class: A1
- 4. Mortar: As section Z21.
 - 4.1. Standard: To [BS EN 998-2](#)
 - 4.2. Mix:
 - 4.2.1. Site batched and mixed mortar: 1:1:6 cement:lime:sand
 - 4.2.2. Mortar to BS EN 998-2: 1:1:6 cement:lime:sand 4 N/mm² (class M4)
- 5. Bond: Half lap stretcher

38 Concrete common blockwork (Above DPC) Main Building & Toilet Block - Paint Grade

1. Description: To External Cavity / Internal Load Bearing Walls
2. Manufacturer: Forterra
 - 2.1. Product reference: Fenlite (Paint Grade)
3. Blocks: To [BS EN 771-3](#)
 - 3.1. Product reference: Fenlite (Paint Grade)
 - 3.2. Configuration: Group 1
 - 3.3. Compressive strength: 7.3 N/mm²
 - 3.4. Category: I
 - 3.5. Freeze/ thaw resistance: Not to be left exposed
 - 3.6. Thermal properties: Thermal conductivity: 0.58W/mK
 - 3.7. Recycled content: 50% (minimum) to [BS EN ISO 14021](#)
 - 3.8. Work sizes (length x width x height): 440 x 100 x 215 mm / 440 x 140 x 215 mm - refer to Ground Floor drawing for thickness.
 - 3.8.1. Tolerance category: D1
 - 3.9. Special shapes: Half sizes
 - 3.10. Additional requirements: Reaction to fire class: A1
4. Mortar: As section Z21.
 - 4.1. Standard: To [BS EN 998-2](#)
 - 4.2. Mix:
 - 4.2.1. Site batched and mixed mortar: 1:1:6 cement:lime:sand
 - 4.2.2. Mortar to BS EN 998-2: 1:3 masonry cement:sand 6 N/mm² (class M6)
5. Bond: Half lap stretcher

39 Concrete common blockwork (Beam & Block Floor) Main Building Only

1. Description: Block Floors
2. Manufacturer: Forterra
 - 2.1. Product reference: Thermalite Aircrete Floorblock
3. Blocks: To [BS EN 771-3](#)
 - 3.1. Product reference: Thermalite Aircrete Floorblock
 - 3.2. Configuration: Group 1
 - 3.3. Compressive strength: 4 N/mm²
 - 3.4. Category: I
 - 3.5. Freeze/ thaw resistance: Not to be left exposed
 - 3.6. Thermal properties: Thermal conductivity: 0.16 W/mK
 - 3.7. Recycled content: 50% (minimum) to [BS EN ISO 14021](#)
 - 3.8. Work sizes (length x width x height): 440 x 100 x 215 mm
 - 3.8.1. Tolerance category: D1
 - 3.9. Special shapes: None
 - 3.10. Additional requirements: None
4. Mortar: As section Z21.
 - 4.1. Standard: To [BS EN 998-2](#)

45 Engineering bricks Main Building & Toilet Block - Below Ground Only

1. Manufacturer: [Marshalls Bricks & Masonry](#)
 - 1.1. Contact details
 - 1.1.1. Address: Landscape House
Lowfields Business Park
Elland
West Yorkshire
United Kingdom
HX5 9HT
 - 1.1.2. Telephone: [+44 \(0\) 1633 600 806](tel:+44(0)1633600806)
 - 1.1.3. Web: <https://www.marshalls.co.uk/bricks-and-masonry>
 - 1.1.4. Email: bricksbm@marshalls.co.uk
 - 1.2. Product reference: [Engineering Brick](#)
2. Standard: To BS EN 771-3.
3. Brick description: Engineering brick.
4. Appearance: Match existing.
5. Compressive strength
 - 5.1. Mean value: 50 N/mm².
 - 5.2. Characteristic value: 50 N/mm².
6. Freeze/ thaw resistance: Frost-resistant.
7. Thermal conductivity: 1.24 W/mK (protected); 1.33 W/mK (exposed).
8. Work sizes (length x width x height): 215 x 100 x 65 mm.
9. Reaction to fire: Class A1 to BS EN 13501-1.
10. Water vapour permeability: To EN 1745, 5/15 µ.
11. Bond strength: To EN 998-2, 0.23 N/mm².
12. Dimensional stability: <0.6 mm/m.
13. Moisture movement: <0.45 mm/m.
14. Colour: Red.

51 Basic workmanship

1. Bond where not specified: Half lap stretcher.
2. Mortar joints: Fill all vertical joints. Lay bricks, solid and cellular blocks on a full bed.
3. Clay block joints
 - 3.1. Thin layer mortar: Lay blocks on a full bed.
 - 3.2. Interlocking perpend: Butted.
4. Quoins and advance work: Rack back.
5. Locations for equal levelling of cavity wall leaves
 - 5.1. Every course containing vertical twist type ties or other rigid ties.
 - 5.2. Every third tie course for double triangle/ butterfly ties.
 - 5.3. Courses in which lintels are to be bedded.
6. Lift height (maximum) for walling using cement gauged or hydraulic lime mortar: 1.2 m above any other part of work at any time.
7. Daily lift height (maximum) for walling using cement gauged or hydraulic lime mortar: 1.5 m for any one leaf.
8. Lift height (maximum) for walling using thin layer mortar: 1.3 m above any other part of work at any time.

55 Facework

1. **Commencement of facework:** Not less than 150 mm below finished level of adjoining ground or external works level.
2. **Brick/ block selection:** Do not use units with damaged faces or arrises.
3. **Cut masonry units:** Where cut faces or edges are exposed cut with table masonry saw.
4. **Coursing brickwork and concrete blockwork:** Evenly spaced using gauge rods. To produce satisfactory junctions and joints with built-in elements and components.

66 Fire stopping

1. **Avoidance of fire and smoke penetration:** Fit tightly between cavity barriers and masonry. Leave no gaps.

Ω End of Section

F30

Accessories/ sundry items for brick/ block/ stone walling

To be read with preliminaries/ general conditions.

5 Cavities

1. Concrete fill to base of cavity: To all cavity walls
2. Concrete generally: To [BS EN 206](#) and [BS 8500-2](#).
3. Concrete type: Designated GEN1
 - 3.1. Workability: High.
4. Extent: Maintain 75 mm between top of fill and external ground level and a minimum of 225 mm between top of fill and ground-level dpc.
5. Placement: Compact to eliminate voids.
6. Cleanliness: Keep cavity faces, ties and dpcs free from mortar and debris.

6 Cleanliness

1. Cavity base and faces, ties, insulation and exposed dpcs: Free from mortar and debris.

7 Perpend joint weepholes

1. Form: Open clear perpend joint.
2. Locations: Through outer leaf immediately above base of cavity, at cavity trays, stepped dpcs and external openings. 75 mm above top of cavity fill at base of cavity.
3. Provision: At not greater than 900 mm centres and not less than two over each opening at maximum 450 mm centres.

8 Perpend joint plastics weepholes Main Building & Toilet Block

1. Manufacturer: [Timloc Building Products](#)
 - 1.1. Contact details
 - 1.1.1. Address: Timloc House
Unit 2 Ozone Park
Howden
East Yorkshire
United Kingdom
DN14 7SD
 - 1.1.2. Telephone: [+44 \(0\)1405 765567](tel:+44(0)1405765567)
 - 1.1.3. Web: <https://timloc.co.uk/>
 - 1.1.4. Email: sales@timloc.co.uk
 - 1.2. Product reference: [Cavity Wall Weep Vent](#)
2. Colour: Closest match to mortar colour
3. Accessories: Cavity wall weep extension if required

10 Mineral fibre slab insulation Main Building Only - Main Cavity Walls

1. Insulation: Rock wool batts to [BS EN 13162](#)
2. Manufacturer: [ROCKWOOL Ltd](#)
 - 2.1. Contact details
 - 2.1.1. Address: ROCKWOOL Ltd
Wern Tarw
Pencoed

Bridgend
United Kingdom
CF35 6NY

- 2.1.2. Telephone: [+44 \(0\)1656 862621](tel:+441656862621)
- 2.1.3. Web: <https://www.rockwool.com/uk/>
- 2.1.4. Email: customersupportcentre@rockwool.com
- 2.2. Product reference: [NyRock® Cavity Slab 032 \(Thickness 200 mm\)](#)
- 3. General requirements: Insulation products generally.
- 4. Standard: To BS EN 13162.
- 5. Thickness: 200 mm.
- 6. Facing: Unfaced.
- 7. Edges: Square.
- 8. Thermal conductivity (maximum): 0.032 W/mK.
- 9. Fire performance: To EN 13501-1, Euroclass A1.
- 10. Sound insulation rating:
- 11. Thermal resistance: 6.25 m²K/W.
- 12. Area: 1.09 m².
- 13. Width: 455 mm.
- 14. Length: 1200 mm.
- 15. Vapour resistivity: 5.9 MNs/gm.

11 Mineral wool slab insulation Main Building Only - Bin Store Cavity Walls / Elec & Gas Cupboard, etc

- 1. Insulation: Expanded polystyrene (EPS) bead boards to [BS EN 13163](#)
- 2. Manufacturer: [Saint-Gobain Isover UK](#)
 - 2.1. Contact details
 - 2.1.1. Address: Saint-Gobain House
East Leake
Loughborough
Leicestershire
United Kingdom
LE12 6JU
 - 2.1.2. Telephone: [+44 \(0\) 800 0322 555](tel:+4418000322555)
 - 2.1.3. Web: <https://isover.co.uk/>
 - 2.1.4. Email: isover.customerservice@saint-gobain.com
 - 2.2. Product reference: Celotex Thermaclass 21
- 3. General requirements: Insulation products generally.
- 4. Standard: To BS EN 13162.
- 5. Thickness: 90mm.
- 6. Facing: Unfaced.
- 7. Edges: Square.
- 8. Thermal conductivity (maximum): 0.032 W/mK.
- 9. Fire performance: To EN 13501-1, Euroclass A1.
- 10. Sound insulation rating:
- 11. Thermal resistance: 6.25 m²K/W.
- 12. Area: 1.09 m².

13. Width: 455 mm.
14. Length: 1200 mm.
15. Vapour resistivity: 5.9 MNs/gm.

15 Ventilation ducts Main Building Only - Telescopic Vents

1. Manufacturer: [Timloc Building Products](#)
 - 1.1. Contact details
 - 1.1.1. Address: Timloc House
Unit 2 Ozone Park
Howden
East Yorkshire
United Kingdom
DN14 7SD
 - 1.1.2. Telephone: [+44 \(0\)1405 765567](tel:+441405765567)
 - 1.1.3. Web: <https://timloc.co.uk/>
 - 1.1.4. Email: sales@timloc.co.uk
 - 1.2. Product reference: [1201XL+ Telescopic Underfloor Vent 5-7 Courses 150mm+ Cavities](#)
2. Material: Thermoplastic.
3. Standards: To BS 493, Class 1.
4. Accessories: Any required extensions

18 Plastics cavity closers Main Building Only

1. Manufacturer: [Timloc Building Products](#)
 - 1.1. Contact details
 - 1.1.1. Address: Timloc House
Unit 2 Ozone Park
Howden
East Yorkshire
United Kingdom
DN14 7SD
 - 1.1.2. Telephone: [+44 \(0\)1405 765567](tel:+441405765567)
 - 1.1.3. Web: <https://timloc.co.uk/>
 - 1.1.4. Email: sales@timloc.co.uk
 - 1.2. Product reference: [Thermo-Loc FR60 60-Minute Fire Rated Cavity Closers \(FR60/200 - 200 mm\)](#)
2. To fit cavity width: 200 mm.
3. Length (effective): 2400 mm.
4. Accessories: all necessary fixing Clips, etc

24 Cavity wall ties Main Building & Toilet Block

1. Description:
2. Manufacturer: [Leviat](#)
 - 2.1. Contact details
 - 2.1.1. Address: President Way
President Park,
Sheffield
South Yorkshire
S4 7UR
 - 2.1.2. Telephone: [+44 \(0\) 114 275 5224](tel:+441142755224)

- 2.1.3. Web: <https://www.leviat.com>
- 2.1.4. Email: info.uk@leviat.com
- 2.2. Product reference: [Ancon TeploTie Wall Tie \(Ancon Teplo-BF1 \(Type 1\)\)](#)
- 3. Tie type: PD 6697 Type 1 (Masonry – heavy duty).
- 4. Material: Pultruded basalt.
- 5. Length: 100mm cavity / 200 mm cavity.
- 6. End types: Other end type.
- 7. Design embedment length (minimum): 62.5 mm
- 8. Additional requirements
 - 8.1. Resistance to water crossing cavity: Resistant.
 - 8.2. Compressive load capacity: 2000 N.
 - 8.3. Tensile load capacity: 2500 N.
- 9. Tie-mounted insulation retaining clips: Teplo-clips.
- 10. Thermal Conductivity:: 0.7 W/mK.
- 11. Third party accreditation: BBA Agrément Certificate, 14/5160.

28 Fixing ties in masonry cavity walls

- 1. Embedment in mortar beds (minimum): 62.5 mm.
- 2. Placement: Sloping slightly downwards towards outer leaf without bending. Drip centred in the cavity and pointing downwards.
- 3. Spacing: Staggered in alternate courses.
- 4. Horizontal centres: 900 mm
- 5. Vertical centres: 450 mm
- 6. Provision of additional ties: Within 225 mm of reveals of unbonded openings and at the vertical reveals of unsupported masonry.
 - 6.1. Spacing: At not more than 300 mm centres vertically

41 Surface-mounted channels Main Building Only - Brick Soffit Support

- 1. Standard: To [BS EN 845-1](#)
- 2. Manufacturer: [Leviat](#)
 - 2.1. Contact details
 - 2.1.1. Address: President Way
President Park,
Sheffield
South Yorkshire
S4 7UR
 - 2.1.2. Telephone: [+44 \(0\) 114 275 5224](tel:+44(0)1142755224)
 - 2.1.3. Web: <https://www.leviat.com>
 - 2.1.4. Email: info.uk@leviat.com
 - 2.2. Product reference: Ancon MDC Bracket Angle Support System & C/W 28/15 continuous ancon channel
- 3. Material/ finish: Austenitic stainless steel – material/ coating reference 1
- 4. Channel/ slot fixing: Surface
- 5. Additional requirements: supply all masonry support fixings as recommended by Ancon.

43 Meshwork joint reinforcement Main Building & Toilet Block - If required

1. Description: Generally
2. Standard: To [BS EN 845-3](#)
3. Manufacturer: Bekaert
 - 3.1. Product reference: Bricktor SBT60CCR
4. Type: Welded wire ladder type
5. Material: Austenitic stainless steel – material/ coating reference R1 to [BS EN 845-3](#)
6. Width: Approximately 40-50 mm less in width than wall or leaf
7. Placement: Lay on an even bed of mortar in a continuous strip with full laps at angles. Keep back 20 mm from face of external work, 12 mm back from face of internal work and finish joint to normal thickness.
 - 7.1. Lap length (minimum): As structural engineer's recommendations

52 Site-formed flexible sheet cavity trays Main Building & Toilet Block

1. Manufacturer: RIW
 - 1.1. Product reference: Sheetseal 9000 DPC

58 Preformed dpc/ cavity tray junction cloaks/ stop ends Main Building & Toilet Block

1. Description: Purpose-made cloak, corner junction units, stop ends, etc
2. Manufacturer: RIW
 - 2.1. Product references and locations: Sheetseal 9000 DPC
3. Placement: Seal all laps with dpcs and/ or cavity trays to provide a free draining and watertight installation.

62 Site-formed dpc/ cavity tray junctions/ stop ends Main Building & Toilet Block

1. Three dimensional changes in shape: Form to provide a free draining and watertight installation.
2. Alternative use of preformed cloaks/ stop ends: Submit proposals.

66 Installation of horizontal dpcs

1. Placement: In continuous lengths on full even bed of fresh mortar, with 100 mm laps at joints and full laps at angles.
2. Width: At least full width of masonry leaf. Edges of dpc not covered with mortar or projecting into cavity.
3. Overlying construction: Immediately cover with full even bed of mortar to receive next masonry course.
4. Overall finished joint thickness: As close to normal as practicable.
5. Ground-level dpcs joint with damp-proof membrane: Continuous and effectively sealed.
6. Low-level dpcs in external walls: Install not less than 150 mm above adjoining finished ground level.
7. Sill dpcs form and placement: In one piece and turned up at the back when the sill is in contact with inner leaf.
8. Dpcs crossing cavity: Provide support to prevent sagging.

74 Installation of vertical dpcs

1. Form: In one piece wherever possible.

- 1.1. Joints: Upper part overlapping lower not less than 100 mm.
2. Dpcs to jambs of openings: Fully lap behind cavity tray/ lintel at head and over horizontal dpc at sill. Project not less than 25 mm into cavity and maintain full contact with frames.
3. Fixing of jamb dpcs to back of built-in timber frames: Secure using galvanized clout nails or staples.

75 Installation of site-formed cavity trays

1. Requirements to prevent downward ingress of water
 - 1.1. Profiles: To match those shown on drawings. Firmly secured.
 - 1.2. Joint treatment: Use continuous length wherever possible, otherwise lap at least 100 mm and seal to produce a free draining and watertight installation.
 - 1.3. Horizontal cavity trays: Support using cavity closer.
 - 1.4. Sloping cavity trays: Prevent sagging.
 - 1.5. Cleanliness: Free from debris and mortar droppings.

76 Expanded polyethylene (PE) foam strips Main Building & Toilet Block - Expansion Joints

1. Manufacturer: [GCP Applied Technologies](#)
 - 1.1. Contact details
 - 1.1.1. Address: 487-488 Ipswich Road
Slough
Berkshire
SL1 4EP
 - 1.1.2. Telephone: [+44 \(0\)1753 490000](tel:+441753490000)
 - 1.1.3. Web: <https://gcpat.com/>
 - 1.1.4. Email: info-gb@gcpat.com
 - 1.2. Product reference: [AEROFIL® 1 Joint Filler Board](#)
2. Standard: To MCHW Volume 1: Specification for highway works (SHW).
3. Weathering test: No disintegration.
4. Recovery: 90% after release of load.
5. Material: Polyethylene.
6. Density: To ISO 845, 28 kg/m³ ± 10%.
7. Compression in joint (minimum): To ISO 3386-1, 120 kN/m² ± 30%.
8. Size
 - 8.1. Thickness:
 - 8.2. Width: 800 mm.
9. Colour: White.
10. Length: 2000 mm.
11. Water absorption: To ISO 2896, 1%.
12. Operating temperature: -5°C to +100°C.
13. Ancillary components:
14. Joint preparation and sealant application: As section Z22.
15. Filler: Closed cell polyethylene foam
 - 15.1. Placement: Build in as work proceeds ensuring no projections into cavities and to correct depth to receive sealant system.
16. Sealant: [ISO 11600](#), F-20LM
 - 16.1. Colour: To match adjoining brickwork

79 Head of non-loadbearing walls

1. Restraints: Refer to Structural Engineer's specification
 - 1.1. Fixing: Secure to soffit.
2. Joint filler: Min 1 hour fire resistance
 - 2.1. Placement: Full, no gaps.

83 Precast concrete lintels Main Building & Toilet Block

1. Standard: To [BS EN 845-2](#).
2. Manufacturer: As Structural Engineer's schedule/drawings
 - 2.1. Product reference: As Structural Engineer's schedule/drawings
3. Types: As Structural Engineer's schedule/drawings
4. Sizes: As Structural Engineer's schedule/drawings
5. As schedule
6. Additional requirements: As schedule
7. Placement: Bed on mortar used for adjacent work.
 - 7.1. Bearing length (minimum): 150 mm
8. Verification:
 - 8.1. Submittals:
 - 8.2. Timing:

85 Prefabricated steel lintels Main Building & Toilet Block

1. Standard: To [BS EN 845-2](#).
2. Manufacturer: As Structural Engineer's schedule/drawings
 - 2.1. Product reference: As Structural Engineer's schedule/drawings
3. Types: As Structural Engineer's schedule/drawings
4. Material/ finish: As Structural Engineer's schedule/drawings
5. Sizes: As Structural Engineer's schedule/drawings
6. Placement: Bed on mortar used for adjacent work.
 - 6.1. Bearing length (minimum): 150 mm
7. Environmental performance requirements:

Ω End of Section

G20

Carpentry/ timber-framing/ first fixing

Clauses

2 Timber procurement

1. Timber and wood-derived products: To originate from an independently verifiable legal and sustainable source, in accordance with the [UK Forestry Standard \(UKFS\)](#).
2. Documentation: Category B evidence ([UKTPP](#)).
3. Chain of custody certification: In accordance with the [UKTPP](#), i.e. the [Forest Stewardship Council \(FSC\)](#), [Grown in Britain \(GiB\)](#) or [Programme for the Endorsement of Forest Certification \(PEFC\)](#).

3 Grading and marking of softwood

1. Timber of a target/ finished thickness less than 100 mm and not specified for wet exposure: Graded at an average moisture content not exceeding 20% with no reading being in excess of 24% and clearly marked as 'DG' (dry-graded).
2. Timber wet-graded and specified for installation at higher moisture contents: graded at an average moisture content above 20% and unmarked.
3. Structural timber members cut from large graded sections: Regraded to approval and marked accordingly.

5 Structural softwood Main Building & Toilet Block

1. Description: For structural use generally
2. Grading standard: Strength-graded and marked in accordance with [BS EN 14081-1](#).
3. Product characteristics
 - 3.1. Grade: GS to [BS 4978](#).
 - 3.2. Strength class : Refer to Structural Engineer's drawings/specification
 - 3.3. Target size: Refer to Structural Engineer's drawings/specification
 - 3.3.1. Tolerance class: Refer to Structural Engineer's drawings/specification
 - 3.4. Preservative treatment: Timber must be treated in compliance with [BS 8417](#).
 - 3.4.1. Desired service life: 30 years.
 - 3.5. Flame-retardant treatment: None required.

7 Structural hardwood (graded direct to strength class) Main Building & Toilet Block

1. Description: For structural use generally
2. Grading standard: To BS EN 14081-1 and BS EN 16737, or other suitable national standard, and so marked
3. Strength class to BS EN 338: As structural Engineer's details
4. Surface finish: Planed all round
5. Treatment
 - 5.1. Preservative treatment: Organic solvent impregnation to NBS section Z12 and Wood
 - 5.1.1. Design service life: 30 years
 - 5.2. Flame-retardant treatment: None required

10 Ungraded softwood Main Building & Toilet Block

1. Description: FOR INTERNAL NONSTRUCTURAL USE

2. **Quality of timber:** Free from decay, insect attack (except pinhole borers) and with no knots wider than half the width of the section.
3. **Surface finish:** Regularized
4. **Treatment**
 - 4.1. **Preservative treatment:** Organic solvent impregnation to NBS section Z12 and Wood Protection Association Commodity Specification C8
 - 4.1.1. **Design service life:** 30 years
 - 4.2. **Flame-retardant treatment:** None required

12 Wood trim Main Building & Toilet Block

1. **Description:** Generally
2. **Classification:** Wood trim classified in accordance with the rules defined in [BS 1186-3](#).
 - 2.1. **Species:** Contractor's choice.
 - 2.2. **Quality class:** 2.
3. **Performance**
4. **Product characteristics**
 - 4.1. **Preservative treatment:** Timber must be treated in compliance with [BS 8417](#).
 - 4.1.1. **Use class:** External soffit board to UC2.
 - 4.1.2. **Desired service life:** 30 years.
5. **Fixing:** Two 50 mm lost head nails to each support.

15 Plywood Main Building & Toilet Block

1. **Description:** Flat Roof Decking / Sarking / Stud Walls and generally
2. **Standard:** Structural plywood to [BS EN 636](#) in compliance with [BS EN 13986](#).
 - 2.1. **Marking:** Each panel or package is to be marked in accordance with clause 7 of [BS EN 13986](#), and be CE/ UKCA marked.
 - 2.2. **Submittals:** Manufacturer to provide Declaration of Performance (DoP) certificate and CE/ UKCA marking documentation.
3. **Product characteristics**
 - 3.1. **Bonding quality:** To [BS EN 314-2](#), Class 3.
 - 3.2. **Appearance:** To [BS EN 635-2](#), Class II. To [BS EN 635-2](#) Class III.
 - 3.3. **Finish:** Sanded.
 - 3.4. **Nominal thickness:** Refer to drawings
 - 3.5. **Preservative treatment:** Plywood must be treated in compliance with [BS 8417](#).
 - 3.5.1. **Use class:** Internal plywood to Use Class 1 / Intermediate floor and decking/Sarking board use Class 2
 - 3.5.2. **Desired service life:** 30 years.
 - 3.6. **Flame-retardant treatment:** None required.

20 Trussed rafters Main Building Only

1. **Manufacturer:** Submit proposals
 - 1.1. Roof truss specialist supplier to have third-party quality assurance certification.
2. **Standard:** Prefabricated trusses in compliance with [BS EN 14250](#).
3. **Performance**
 - 3.1. **Structure:** Trusses designed to [BS EN 1995-1-1](#) and recommendations in [PD6693-1](#). Refer to section B50 'General structural requirements'.

- 3.1.1. Service class: As structural Engineer's recommendations
- 3.1.2. Water tank allowance: None required.
- 3.1.3. Bracing of trusses: Trusses to be braced in accordance with annex E of [PD 6693-1](#).
- 4. Product characteristics
 - 4.1. Truss system: Agrément-certified.
 - 4.2. Ancillary components to be supplied by fabricator: Double trusses. Gable ladders. Grooved stiffeners. all connectors
 - 4.3. Preservative treatment: Organic solvent type as section Z12.
 - 4.3.1. Use class:
 - 4.3.2. Desired service life: 30 years.
 - 4.4. Flame-retardant treatment: None required.
- 5. Handling and storage: Keep trussed rafters vertical.

30 Selection and use of timber

- 1. Timber members damaged, crushed or split beyond the limits permitted by their grading: Do not use.

32 Notches, holes and joints in timber

- 1. Notches and holes: Position in relation to knots or other defects so that the strength of members will not be reduced.
- 2. Scarf joints, finger joints and splice plates: Do not use without approval.

35 Processing treated timber

- 1. Cutting and machining: Carry out as much as possible before treatment.
- 2. Extensively processed timber: Retreat timber sawn lengthways, thickened, planed, ploughed, etc.
- 3. Surfaces exposed by minor cutting/ drilling: Treat with two flood coats of a solution recommended by the main treatment solution manufacturer.

40 Moisture content

- 1. Moisture content of wood and wood-based products at time of installation: Should not be more than 24% for Service Class 3 environments.

41 Bolt/ screw assemblies

- 1. Description: Generally
- 2. Designation: As Structural Engineer's Specification
- 3. Size: As Structural Engineer's Specification
- 4. Coating applied by manufacturer: As Structural Engineer's Specification
- 5. Nuts and washers: Material grade and finish to suit bolts.
- 6. Washer dimensions: Diameter/ side length of washers in contact with timber faces to be a minimum of three times the bolt diameter, with a thickness not less than 0.25 times the bolt diameter.

43 Bolted joints

- 1. Bolt spacings (minimum): To [BS EN 1995-1-1](#), section 8.5.
- 2. Holes for bolts: Located accurately and drilled to diameters as close as practical to the nominal bolt diameter, and not more than 2 mm larger.

3. **Washers:** Placed under bolt heads and nuts that would otherwise bear directly on timber. Use spring washers in locations that will be hidden or inaccessible.
4. **Bolt tightening:** Tighten bolts so that washers just bite the surface of the timber. Ensure that at least one complete thread protrudes from the nut.
 - 4.1. **Checking:** At agreed regular intervals. Tighten as necessary.

45 Framing anchors

1. **Manufacturer:** As Structural Engineer's Specification
 - 1.1. **Product reference:** As Structural Engineer's Specification
2. **Material/ finish:** As Structural Engineer's Specification
3. **Fasteners:** As Structural Engineer's Specification
 - 3.1. **Size:** As Structural Engineer's Specification
4. **Fixing:** Secure using not less than the number of nails recommended by the anchor manufacturer.

50 Additional supports

1. **Provision:** Position and fix additional studs, noggings and/ or battens to support the edges of sheet materials, and wall-mounted/ floor-mounted/ ceiling-mounted appliances, fixtures, etc. shown on drawings.
2. **Material properties:** Timber to be of adequate size and have the same treatment as adjacent timber supports. Additional studs, dwangs and battens to be of adequate size and have the same treatment, if any, as adjacent timber supports.

55 Joists generally

1. **Centres:** Equal, and not exceeding the designed spacing.
2. **Bowed joists:** Installed with positive camber.
3. **End joists:** Positioned 50 mm from masonry walls.

60 Joists on hangers

1. **Hangers:** Bedded directly on and hard against supporting construction. Do not use packs or bed on mortar.
2. **Joists:** Cut to leave not more than a 6 mm gap at each end. Rebated to lie flush with the underside of hangers.
3. **Fixing to hangers:** A nail in every hole.

65 Joist hangers

1. **Description:** Generally
2. **Standard:** [BS EN 845-1](#).
3. **Manufacturer:** Simpson Strong-Tie
 - 3.1. **Product reference:** As Structural Engineer's Specification
4. **Material/ finish:** Galvanized low-carbon steel sheet.
5. **Size:** To suit the joist, design load and crushing strength of supporting construction.

70 Trimming openings

1. **Trimmers and trimming joists:** Not less than 25 mm wider than general joists.

75 Trussed rafter installation

1. **Erection:** To [Trussed Rafter Association \(TRA\) Technical handbook. Site installation guide](#) and [TRA Product Data PD3 Storage and erection of trussed rafters on site \(Part 1\)](#).

2. Trusses generally: Do not modify without approval.
3. Damaged trusses: Do not use.
4. Fixing: With truss clips. Bottom chords of standard trusses and rafters of raised tie trusses bearing fully on wall plates.
 - 4.1. Bottom chords of standard trusses: Do not fix to internal walls until roofing is complete and cisterns are installed and filled.
5. Tolerances: To NA to [BS EN 1995-1-1](#).

77 Truss clips

1. Manufacturer: Simpson Strong-Tie
 - 1.1. Product reference: TCP: Truss Clip
2. Material/ finish: Galvanized.
3. Fasteners: As Structural Engineer's Specification

80 Permanent bracing of trussed rafters

1. Bracing and binders
 - 1.1. Size: As Truss Specialist Manufacturer's details/specification
 - 1.2. Method of fixing: To every rafter, strut or tie with not less than two fasteners.
 - 1.2.1. Fasteners: As Truss Specialist Manufacturer's details/specification
2. Lap joints: Extended over and nailed to at least two truss members.

85 Vertical restraint straps

1. Type: As Structural Engineer's Specification
2. Manufacturer: Simpson Strong-Tie
 - 2.1. Product reference: As Structural Engineer's Specification
3. Standard: CE/ UKCA marked in accordance with [BS EN 845-1](#).
4. Material/ finish: Galvanized steel.
5. Size
 - 5.1. Cross section: Not less than 30 x 2.5 mm
 - 5.2. Length: As Structural Engineer's Specification
6. Centres: As Structural Engineer's Specification
7. Fixing: To timber wall plate with a minimum of two 3.4 x 35mm galvanized square-twist nails. Fixed to blockwork with a minimum of six no. screws drilled and fixed in plastic wall plugs, with at least one screw located within 150 mm of the bottom end of each strap.

90 Lateral restraint straps

1. Manufacturer: Simpson Strong-Tie
 - 1.1. Product reference: As Structural Engineer's Specification
2. Standard: CE/ UKCA marked in accordance with [BS EN 845-1](#).
3. Material/ finish:
4. Size: As Structural Engineer's Specification
5. Fixing: As Structural Engineer's Specification
 - 5.1. Ensure that the cranked end is in tight contact with the cavity face of the wall inner leaf, and is not pointing upwards.
6. Straps spanning joists/ rafter/ ties running parallel to wall: Fix noggings and packs tightly beneath straps.

- 6.1. **Size of noggings and packs:** Not less than three quarters of joist/ rafters/ tie depth and not less than 38 mm thick.
- 6.2. **Notching:** Notch joists so that straps fit flush with surface. Do not notch rafters/ ties.
- 7. **Fasteners:** Not less than four 50 mm x 8 gauge sherardized countersunk screws per strap, evenly spread.

99 Aluminium combined fascias, soffits

- 1. **Manufacturer:** [Alumasc Water Management Solutions](#)
 - 1.1. **Contact details**
 - 1.1.1. **Address:** Station Road
Burton Latimer
Kettering
Northamptonshire
NN15 5JP
 - 1.1.2. **Telephone:** +44 (0)1536 383810
 - 1.1.3. **Web:** <https://www.alumascwms.co.uk/>
 - 1.1.4. **Email:** marketing@alumascwms.co.uk
 - 1.2. **Product reference:** Alumasc Skyline Aluminium Soffit Standard Profile (SOF0)
[Alumasc Skyline Aluminium Fascia Standard Profile \(SF1 - Once bent\)](#)
- 2. **Form:** Standard fascia.
- 3. **Fascias**
 - 3.1. **Profile:** Once bent.
 - 3.2. **Size:** 0-1000 mm.
 - 3.3. **Thickness or gauge:** 2 mm.
 - 3.4. **Finish:** Powder coated.
 - 3.5. **Colour:** Grey RAL - 7016
 - 3.6. **Film thickness (minimum):** 120-160 Microns (Marine).
- 4. **Reaction to fire (EN 13501-1):** A2.
- 5. **Standards:** To BS EN 13501:2018.
- 6. **Accessories/ other requirements:** External corner trims. Transitional corners from eaves to verge, all other accessories required
- 7. **Support:** 50 x 38 mm preservative-treated softwood
 - 7.1. Provide additional support at joints.
- 8. **Fixings:** As recommended by sheet manufacturer
- 9. **Installer:** A contractor approved by the manufacturer.

Ω End of Section

H6

Slate and tile pitched roof coverings and cladding

System Outline

102 Pitched roof covering Main Building Only - Natural Slates

1. Description: Main Pitched Roof
2. Manufacturer: Sig Roofing
 - 2.1. Product reference: Gallegas 65
3. Insulation: In between and below refer - refer to Section P10
 - 3.1. Below rafters: Expanded polystyrene boards, as clause P10/16.
 - 3.2. Between rafters: Expanded polystyrene boards, as clause P10/15.
4. Roofing underlay: Breathable, as clause P10/60
5. Battens: 50 x 25 mm (600 mm span).
 - 5.1. Timber: Sawn softwood to [BS 5534](#), clause 4.11.
 - 5.2. Size (minimum): 25 x 50 mm.
 - 5.3. Pretreatment: In accordance with [Wood Protection Association \(WPA\) Code of practice - industrial wood preservation](#).
6. Roof covering:
 - 6.1. General roof areas: Natural slates, as clause 304.
 - 6.2. Ridges: Ventilating ridge tiles, as clause 316.
7. Ventilation: Ventilating slates or tiles, as clause 320.
8. Leadwork: As drawings.

Products

304 Natural slates Main Building Only

1. Description: For Pitched Roof
2. Manufacturer: SIG Roofing
 - 2.1. Product reference: Gallegas 65
3. Type: To [BS EN 12326-1](#).
4. Colour: Blue-grey.
5. Size: Manufacturer's standard.

316 Concrete tile ridge fittings Main Building Only

1. Manufacturer: [Marley Ltd](#)
 - 1.1. Contact details
 - 1.1.1. Address: Lichfield Road
Branston
Burton on Trent
Staffordshire
United Kingdom
DE14 3HD
 - 1.1.2. Telephone: [+44 \(0\)1283 722588](tel:+44(0)1283722588)
 - 1.1.3. Web: <https://www.marley.co.uk/>
 - 1.1.4. Email: info@marley.co.uk
 - 1.2. Product reference: [Modern Ridge](#)

2. Standard: To BS EN 490.
3. Form: Angled tiles.
4. Colour: Black
5. Block ends: Block ridge.
6. Length: 457 mm.
7. Width: 248 mm.
8. Other requirements:

320 Roof ridge ventilator tiles Main Building Only

1. Manufacturer: [Nicholson STS Ltd](#)
 - 1.1. Contact details
 - 1.1.1. Address: Unit 13 Wireless
Station Park
Bassingbourn
Royston
Hertfordshire
SG8 5JH
 - 1.1.2. Telephone: [+44 \(0\) 1763 295828](tel:+44(0)1763295828)
 - 1.1.3. Web: <https://www.nicholsonsts.com>
 - 1.1.4. Email: info@nicholsonsts.com
 - 1.2. Product reference: [AIRTRAK® VR Ventilated Ridge \(Airtrak VR200-FR Ventilated Ridge\)](#)
2. Ventilation opening: 1000 mm.
3. Colour: Stainless steel.
4. LPS low pitch soaker: Not required.
5. Airtrak CF ClipFast fixing clips:
6. Length: 10 mm continuous air gap equivalent.
7. Grade: 304.
8. Dimensions: 1000 x 220 mm.
9. Activation: 180—200°C.
10. Expansion: 30:1.
11. Type: Fire resistant ventilator with intumescent seal.
12. Roof pitch: 200 mm.

325 Roof slope ventilator tiles Main Building Only

1. Description: Inline slate vent tiles
2. Manufacturer: [Timloc Building Products](#)
 - 2.1. Contact details
 - 2.1.1. Address: Timloc House
Unit 2 Ozone Park
Howden
East Yorkshire
United Kingdom
DN14 7SD
 - 2.1.2. Telephone: [+44 \(0\)1405 765567](tel:+44(0)1405765567)
 - 2.1.3. Web: <https://timloc.co.uk/>
 - 2.1.4. Email: sales@timloc.co.uk
 - 2.2. Product reference: RTV-IS | Inline Slate Vent

3. Type: Roofing vent.
4. Profile: In line.
5. Colour: As roof covering.

342 Leadwork Generally Main Building Only

1. Description: For Pitched Roof / Rooflights
2. Lead sheet: Rolled to [BS EN 12588](#).
3. Thickness: Min. Code 4
 - 3.1. Flashings: 1.75–2 mm (Code 4).

346 Plastics eaves underlay support & Over-fascia ventilator grilles Main Building Only - 25mm Roof Eaves Vent System

1. Manufacturer: [Marley Ltd](#)
 - 1.1. Contact details
 - 1.1.1. Address: Lichfield Road
Branston
Burton on Trent
Staffordshire
United Kingdom
DE14 3HD
 - 1.1.2. Telephone: [+44 \(0\)1283 722588](#)
 - 1.1.3. Web: <https://www.marley.co.uk/>
 - 1.1.4. Email: info@marley.co.uk
 - 1.2. Product reference: [Underfelt Support Tray](#)
2. Style: Manufacturer's standard.
3. Colour: Black.

Execution

602 Programme

1. Timing: Make roofing and/ or cladding sound and weathertight at earliest opportunity.

604 Setting out slates and tiles generally

1. General: Set out to true lines and regular appearance. Lay units with 5 mm (maximum) gapped butt joints. Align tails.
2. Ends of courses: Use extra-wide units to maintain bond. Do not use units less than 150 mm wide.
3. Top and bottom courses to slating or plain tiling: Non-standard length units to maintain gauge.

608 Fixing battens and counter battens

1. Length (minimum): 1.2 m.
2. Setting out:
 - 2.1. Alignment: In straight lines. Set out counter battens over rafters or (for cladding) studs where available.
 - 2.2. Joints: Staggered on supports.
3. Surfaces exposed by cutting: Apply two flood coats (minimum) of recommended treatment solution.

612 Laying underlay

1. **Support at eaves:** Softwood tilting fillet, preservative-treated, or 9 mm external-quality plywood fixed on tilt to drain to gutter, or purpose-made underlay carrier. Dress underlay or underlay carrier to form drip into gutter.
2. **Installation at bedded verges:**
 - 2.1. **Verge with bedded undercloak at gable wall:**
 - 2.2. **Verge with nailed undercloak over bargeboard:** Carry underlay over full width of verge.
3. **Installation at ventilated ridge:** Lay underlay courses to provide an air gap at apex.
4. **Installation at metal valley gutter:** Cut underlay over tilting fillets to lap on to metal valley. Do not lay under metal.

614 Fixing slate and tile roofing

1. **Nailing, clipping and riveting:** As manufacturer's fixing specification.

616 Fixing slates or tiles at eaves

1. **Eaves:** Fix first course units (and undercourse units to slating and plain tiling) with tails projecting 50 mm over gutter or to centre of gutter.

618 Fixing slates or tiles at verges

1. **Bedded verge with bedded undercloak:**
 - 1.1. **Undercloak to plain tile or slate roof covering:** To match roofing units.
 - 1.2. **Battens:** Carry on to undercloak, and finish 100 mm from verge edge.
 - 1.3. **Verge units:** Bed flush with under cloak on 75 mm-wide mortar bed.
2. **Bedded verge with nailed undercloak:**
 - 2.1. **Undercloak to natural slate roof covering:** To match roofing units.
 - 2.2. **Undercloak to plain or single-lap tile or to fibre-cement slate roofing:** Fibre-cement sheet, nail-fixed. Slope towards verge to project 38–50 mm beyond face of bargeboard.
 - 2.3. **Battens:** Carry on to under cloak, and finish 100 mm from verge edge.
 - 2.4. **Verge units:** Bed flush with under cloak on 75 mm-wide mortar bed.

622 Fixing ridge tiles

1. **Ventilated (dry-fix) ridges:** As manufacturer's fixing specification.
2. **Unventilated (mortar-bedded) ridges:**
3. **Other requirements:**

626 Laying leadwork

1. **Standard:** In accordance with the [Lead Sheet Training Academy \(LSTA\)](#) publication [Rolled lead sheet - the complete manual](#).
2. **Flashings generally:** Roof / Rooflight
 - 2.1. **Lengths:** Maximum 1.5 m.
 - 2.2. **End-to-end joint laps (minimum):** 100 mm.

Ω End of Section

H20

Rigid sheet cladding

Clauses

Read in conjunction with Preliminaries and general conditions

10 Compressed rock fibre panels Main Building Only - External Column Cladding

1. Manufacturer: [Rockpanel](#)
 - 1.1. Contact details
 - 1.1.1. Address: Konstruktieweg 2,
Roermond
Netherlands
6045
 - 1.1.2. Telephone: [+44 \(0\)1656 863210](tel:+441656863210)
 - 1.1.3. Web: <https://www.rockpanel.co.uk/>
 - 1.1.4. Email: info@rockpanel.co.uk
 - 1.2. Product reference: [Rockpanel Colours](#)
2. Panel size
 - 2.1. Length: Custom.
 - 2.2. Width: 1200 mm.
 - 2.3. Panel thickness: 9 mm.
3. Edge profile: Square edge.
4. Finish as delivered: Manufacturer's standard.
5. Colour: TBC
6. Reaction to fire
 - 6.1. Panel internal face: European fire class A2-s1,d0.
 - 6.2. Panel external face: European fire class A2-s1,d0.
7. Combustibility: European fire class A2-s1,d0
8. Third party product certification: ETA-07/0141 or ETA-13/0340 - Dependent on variant specified.
9. Board/ Sheet
 - 9.1. Fasteners: MS polymer adhesive adhesive, 4.8 x 32 mm star head stainless steel low-profile screws, head colour to match cladding sheet
 - 9.1.1. Number and location: as recommended by board manufacturer
 - 9.2. Joints
10. Air gap: 8mm
11. Support system: Timber studwork, on Adjustable Elevated Post Base on concrete base

30 Timber battens

1. General: Regularized softwood free from decay, insect attack and with no knots wider than half the width of the section
2. Preservative treatment: As section Z12 and [Wood Protection Association \(WPA\)](#) guidance.
 - 2.1. Type: Organic solvent
3. Moisture content at time of fixing (maximum): 19%.

70 Treated timber

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

Ω End of Section

H74

Zinc strip/ sheet fully supported roof coverings/ flashings

To be read with preliminaries/ general conditions.

3 Zinc sheet fully supported wall cladding and roof covering Main Building Only

1. Covering system: Long strip
2. Sarking or roof boarding: As G20/15
3. Membrane: Vapour-permeable sheet, in accordance with [BS EN 13859-1](#)
4. Insulation: Not required
5. Substrate: 18mm plywood on (50 x 100 mm) treated timber battens forming ventilated cavity
 - 5.1. Preparation: Not required
6. Sheet underlay: Vapour-permeable underlay, in accordance with [BS EN 13859-1](#)
7. Zinc
 - 7.1. Type: As clause 41
 - 7.2. Designation: Standard temper alloy
 - 7.3. Finish: Slate Grey
 - 7.4. Thickness: 0.8 mm
8. Joints in direction of fall: Angled standing seams
 - 8.1. Spacing: As recommended by sheet manufacturer
9. Cross joints: Not permitted
 - 9.1. Spacing:

17 Ridge/ hip standing seams Main Building Only

1. Type: Double-lock welt standing seam not less than 40 mm high.
2. [Abutting roof standing seams](#): Fold down with allowance for lateral movement and turn up into ridge/ hip double-lock welt.

20 Standing seam eaves Main Building Only

1. Zinc underlap: Vertical cladding
 - 1.1. Cover to roof slope: As Rheinzink details
 - 1.2. Projection: As Rheinzink details
 - 1.3. Fixing: As Rheinzink details
2. Standing seams: Cut and fold ends Square .
3. Roof covering: As Rheinzink details

36 Step and cover flashings Main Building Only

1. Description: Zinc wall & Zinc Roof to brick wall abutment
2. Zinc: As Zinc sheet manufacturer's recommendations
 - 2.1. Type: As Zinc sheet manufacturer's recommendations
 - 2.2. Finish: Natural
 - 2.3. Thickness: As Zinc sheet manufacturer's recommendations
3. Lengths: not more than 9 m.
4. Fixing: Zinc wedges every course, clips to free edge at laps and 500 mm centres.

38 Strip ventilators Main Building Only

1. Manufacturer: [Nicholson STS Ltd](#)
2. Contact details
 - 2.1. Address: Unit 13 Wireless
Station Park
Bassingbourn
Royston
Hertfordshire
SG8 5JH
 - 2.2. Telephone: [+44 \(0\) 1763 295828](tel:+44(0)1763295828)
 - 2.3. Web: <https://www.nicholsonsts.com>
 - 2.4. Email: info@nicholsonsts.com
3. Product reference: [AIRTRAK® VT Ventilated Edge Trim \(Airtrak VT18 Ventilated Edge Trim\)](#)
4. Purpose: For use with 18 mm plywood.
5. Ventilation opening: 25 mm continuous air gap equivalent.
6. Colour: Stainless steel.
7. Grade: 304.
8. Dimensions: 1000 x 145 mm.
9. Type: Standard.

40 Materials design and workmanship generally

1. Zinc strip/ sheet: To [BS EN 14873](#), [BS EN 501](#) and [BS EN 988](#).
2. Design and workmanship: Generally to [CP 143-5](#) and [Federation of Traditional Metal Roofing Contractors \(FTMRC\) UK guide to good practice in fully supported metal roofing and cladding](#).
3. Fabrication and fixing: To provide a secure, free-draining and completely weathertight installation.
4. Preforming: Measure, mark, cut and form zinc prior to assembly wherever possible. Do not use scribes or other sharp instruments without approval.
5. Metal temperature: Do not form zinc when the metal temperature is below the minimum recommended for working by the manufacturer.
6. Folding: With presses to give straight, regular and tight bends, leaving panels free from ripples, kinks, buckling and cracks.
7. Sharp metal edges: Remove as work proceeds.
8. Sealants: Do not use in joints to attain waterproofing.
9. Solder: Use only where specified. Soldering materials and procedures must be as recommended by the zinc manufacturer.
10. Finished zinc work: Fully supported, adequately fixed to resist wind uplift and able to accommodate thermal movement without distortion, stress or impairment of security.
 - 10.1. Protection: Prevent staining, discolouration and damage by subsequent works.

41 Zinc strip/ Sheet

1. Type: Zinc-copper-titanium
2. Standard: To [BS EN 988](#)
3. Manufacturer: RheinZink

42 Soldering and naked flame preheating

1. In situ soldering and naked flame preheating: Not permitted.

50 Timber for use with zinc work

1. **Quality:** Planed, free from wane, pitch pockets, decay and insect attack (ambrosia beetle excepted).
2. **Moisture content:** Not more than 22% at the time of fixing and covering.
3. **Preservative treatment:** Organic solvent as the [Wood Protection Association](#) publication [Code of Practice - Industrial wood preservation](#)

51 Sheet underlay

1. **Manufacturer:** As Zinc sheet manufacturer's recommendations
 - 1.1. **Product reference:** As Zinc sheet manufacturer's recommendations
2. **Weight:** As Zinc sheet manufacturer's recommendations

52 Laying sheet underlay

1. **Handling:** Prevent tears and punctures.
2. **Laying:** Butt-jointed on to a dry substrate.
 - 2.1. **Fixing edges:** With galvanized, sherardized or stainless steel staples or 20 x 3 mm extra large head clout nails.
 - 2.2. Do not lay over eaves and drip/ step zinc underlaps.
3. **Protection:** Keep dry and cover with zinc at the earliest opportunity.

60 Fixings for clips

1. **Nails to timber substrates:** Galvanized or sherardized steel.
 - 1.1. **Shank type:** Annular ringed, helical threaded, or serrated.
 - 1.2. **Head:** Flat.
 - 1.3. **Length:** Not less than 25 mm or equal to substrate thickness.
2. **Screws to concrete or masonry substrates:** Sherardized or zinc-plated steel.
 - 2.1. **Length:** Not less than 25 mm.
 - 2.2. **Washers and plastics plugs:** Compatible with screws.

62 Clips

1. **Material:** Zinc, supplied preformed by the strip/ sheet manufacturer, or cut and formed in situ as recommended by the strip/ sheet manufacturer.
2. **Dimensions, number of fixings and provision for movement:** As recommended by the strip/ sheet manufacturer.

65 Wedge fixing into joints/ chases

1. **Joint/ Chase:** Rake/ cut out to a depth of not less than 25 mm (under dpc where in the same joint).
2. **Zinc:** Fold 25 mm into joint/ chase with a waterstop welted end.
 - 2.1. **Fixing:** Zinc wedges at not more than 450 mm centres, at every change of direction, and with at least two for each piece of zinc.
3. **Sealant:** Contractor's choice
 - 3.1. **Application:** As section Z22.

67 Standing seam joints

1. **Joint allowances:** 45 mm overlap, 35 mm underlap and not less than 5 mm gap for thermal movement. Preformed interlocking profiles are permitted.
2. **Clip positions**

- 2.1. Fixed clips: At 300 mm centres
- 2.2. Sliding clips: At 300 mm centres
- 3. Forming: Double welt overlap and clips around underlap to form a standing seam 25 mm high of consistent cross section.

76 Single-lock welt joints

- 1. Joint allowance: 100 mm overlap and 50 mm underlap.
- 2. Underlap: Welt and secure with clips, two per bay.
- 3. Overlap: Welt around underlap and clips and dress down.

78 Double-lock welt joints

- 1. Joint allowance: 90 mm overlap and 60 mm underlap.
- 2. Underlap: Welt and secure with clips, one per bay.
- 3. Overlap: Double welt around underlap and dress down.

Ω End of Section

J40

Flexible sheet waterproofing/ damp-proofing

To be read with preliminaries/ general conditions.

47 High-density polyethylene (PE-HD) studded sheets Main Building & Toilet Block

1. Substrate: Concrete
 - 1.1. Preparation: Not required
2. Standard: To [BS EN 13967](#)
3. Manufacturer: [RIW](#)
 - 3.1. Contact details
 - 3.1.1. Address: 1 Herald Way
Coventry
West Midlands
United Kingdom
CV3 2ZG
 - 3.1.2. Telephone: [+44 \(0\)1753 944200](tel:+441753944200)
 - 3.1.3. Web: <https://www.riw.co.uk>
 - 3.1.4. Email: technical@riw.co.uk
 - 3.2. Product reference: RIW DPM Blue.
 - 3.3. Number of Layer: One
 - 3.4. Thickness / Gauge : 0.5mm / 2000g
4. Joints: Clean and dry beyond full width of joint
 - 4.1. Sealing: RIW Seal Tape between overlaps, edge of top sheet sealed with RIW Lap Tape.
 - 4.2. Laps: 150mm

50 Workmanship generally

1. Condition of the substrate
 - 1.1. Clean and even-textured, free from voids and sharp protrusions.
 - 1.2. Moisture content: Compatible with damp-proofing/ tanking materials.
2. Air and surface temperature: Do not apply sheets if below the minimum recommended by the membrane manufacturer.
3. Condition of the membrane at completion
 - 3.1. Neat, smooth and fully supported, dressed well into abutments and around intrusions.
 - 3.2. Completely impervious and continuous.
 - 3.3. Undamaged. Prevent puncturing during following work.
4. Permanent overlying construction: Cover the membrane as soon as possible.

65 Junctions with flush dpcs/ cavity trays

1. Adjoining surfaces: Clean and dry.
2. Preparation of adjacent dpcs/ cavity trays
 - 2.1. Expose edge where concealed.
 - 2.2. Lap and fully bond/ seal sheeting to wall.
 - 2.3. Dressing of sheeting beyond dpc/ cavity tray (minimum): 50 mm.
 - 2.4. Bonding/ sealing: Bonding compound

Ω End of Section

J42

Single-layer polymeric sheet roof coverings

To be read with preliminaries/ general conditions.

10 Flat roof coating Toilet Block Only

1. Description:
2. Substrate: Plywood deck (laid to fall)
 - 2.1. Preparation: Plywood overlay, as clause 320
3. Air and vapour control layer: Polyroof SA vapour barrier
4. Insulation: Polyroof Progrid Anti-slip finish MMA coating (red) used in conjunction with Protec system to provide anti-slip surface (for occasional foot traffic) (Polyroof Tissue Therm insulation board (also refer to Construction Notes)
5. Overlay to insulation: As recommended by coating manufacturer
6. Carrier membrane: As recommended by coating manufacturer
7. Waterproof coating: Polyroof Liquid Membrane to manufacturer's specification
8. Surface protection: As recommended by coating manufacturer
9. Accessories: Pipe collars, as clause 357

12 Flat roof coating Main Building Only - Front Entrance Canopy

1. Description:
2. Substrate: Plywood deck (laid to fall)
 - 2.1. Preparation: Plywood overlay, as clause 320
3. Air and vapour control layer: Polyroof SA vapour barrier
4. Insulation: Polyroof Progrid Anti-slip finish MMA coating (red) used in conjunction with Protec system to provide anti-slip surface (for occasional foot traffic)
5. Carrier membrane: As recommended by coating manufacturer
6. Waterproof coating: Polyroof Liquid Membrane to manufacturer's specification
7. Surface protection: As recommended by coating manufacturer
8. Accessories: None

16 Gravity rainwater outlets Main Building Only - Entrance Canopy

1. Manufacturer: [Alumasc Water Management Solutions](#)
2. Contact details
 - 2.1. Address: Station Road
Burton Latimer
Kettering
Northamptonshire
NN15 5JP
 - 2.2. Telephone: [+44 \(0\)1536 383810](tel:+44(0)1536383810)
 - 2.3. Web: <https://www.alumascwms.co.uk/>
 - 2.4. Email: marketing@alumascwms.co.uk
3. Product reference: Wade (WB Series)
4. Roof construction
 - 4.1. Form: Cold Roof.
 - 4.2. Roof insulation thickness:

5. Material: Cast Iron.

6. Grating: Domed.
7. Spigots: Spigoted.
8. Integral accessories:
9. Standard: To BS EN 12056.
10. Colour: Black.

28 Abutment ventilators Main Building Only - Front Entrance Canopy

1. Manufacturer: [Nicholson STS Ltd](#)
 - 1.1. Contact details
 - 1.1.1. Address: Unit 13 Wireless
Station Park
Bassingbourn
Royston
Hertfordshire
SG8 5JH
 - 1.1.2. Telephone: +44 (0) 1763 295828
 - 1.1.3. Web: <https://www.nicholsonsts.com>
 - 1.1.4. Email: info@nicholsonsts.com
 - 1.2. Product reference: [AIRTRAK® AB1 Abutment Ventilator \(Airtrak AB1\)](#)
2. Purpose: Standard.
3. Ventilation opening: 25 mm continuous ventilation aperture.
4. Colour: Stainless steel.
5. Airtrak CF ClipFast fixing clips:
6. Grade: 304.
7. Dimensions: 180 x 1000 mm.

35 Laying air and vapour control layer

1. Laying: As Polyroof's recommendations
2. Side and head laps: As Polyroof's recommendations
3. Upstands, kerbs and other penetrations: Enclose edges of insulation. Fully seal at abutment by bonding or taping.

50 Adhesive bonding of waterproof membrane

1. Setting out: Perpendicular to the deck direction
2. Attachment: Fully adhered on a continuous even coating of adhesive
3. Membrane: Do not wrinkle or stretch.
4. Surface condition at completion: Fully sealed, smooth, weatherproof and free-draining.

60 Perimeter details

1. General: Secure membrane at roof edge conditions, changes of plane, curb flashings, upstands to roof lights, etc. with mechanical fasteners.
2. Upstands, edge trims, drips, kerbs, etc: Form flashings from waterproof membrane material
3. Reinforcing strip: As Polyroof's recommendations
4. Roof membrane: Terminate and secure in accordance with manufacturer's/ supplier's recommendations.

65 Roof penetrations

1. Roof membrane: Cut around penetrations and secure to deck
2. Flanged sleeve
 - 2.1. Type: Preformed flanged sleeve
 - 2.2. Installation: Dress over and around penetration.
 - 2.3. Seating: As Polyroof's recommendations
 - 2.4. Roof membrane overlap to flange (minimum): As Polyroof's recommendations
 - 2.5. Sealing: As Polyroof's recommendations
 - 2.6. Protection to top edge of sleeve: Flashing or weathering cravat

Ω End of Section

K10

Gypsum board dry linings/ partitions/ ceilings

To be read with preliminaries/ general conditions.

10 Flat Ceilings Board suspended ceiling systems Main Building Only - Bin Store / Gas & Elec Cupboard / Plant Room Floor

1. Manufacturer: [Promat UK](#)
2. Contact details
 - 2.1. Address: Passive Fire Protection
Gordano House, Marsh Lane
Easton-in-Gordano
Bristol
BS20 0NE
 - 2.2. Telephone: [0800 145 6033](tel:08001456033)
 - 2.3. Web: <https://www.promat.com/en-gb/construction/>
 - 2.4. Email: technical@promat.co.uk
3. Product reference: [SUPALUX® - Promat Timber Floor TJC SLUX-EI60-007S](#)
4. Insulation: Refer to drawings
5. Linings
 - 5.1. Face layer: Two layers of 15 mm PROMAT SUPALUX®.
 - 5.2. Fasteners: Outer layer: M4 x 75 mm steel woodscrews.
6. Joint treatment: Coverstrips. Self tapping screws.
7. System accessories: FSi Promat Pyrocoustic® Fire Resistant Sealant.
8. Fire resistance: 60 minutes integrity and insulation in accordance with BS 476-21.
9. Colour/ Finish:
10. Flooring: None.
11. Nominal Thickness: 169 mm.
12. Fillet: 80 mm wide x 12 mm thick PROMAT SUPALUX® fillets. Steel wire nails.
13. Joists: 145 mm deep x 35 mm wide, minimum strength class C16 Truss.
14. Perimeter: 50 x 50 mm softwood timber noggings required at the perimeter.

11 Flat Ceilings Board suspended ceiling systems Toilet Block Ceiling - Plant Room

1. Manufacturer: [Promat UK](#)
2. Contact details
 - 2.1. Address: Passive Fire Protection
Gordano House, Marsh Lane
Easton-in-Gordano
Bristol
BS20 0NE
 - 2.2. Telephone: [0800 145 6033](tel:08001456033)
 - 2.3. Web: <https://www.promat.com/en-gb/construction/>
 - 2.4. Email: technical@promat.co.uk
3. Product reference: [SUPALUX® - Promat Timber Floor TJC SLUX-EI60-007S](#)
4. Insulation: Refer to drawings
5. Linings

- 5.1. Face layer: Two layers of 15 mm PROMAT SUPALUX®.
- 5.2. Fasteners: Outer layer: M4 x 75 mm steel woodscrews.
- 6. Joint treatment: Coverstrips. Self tapping screws.
- 7. System accessories: FSi Promat Pyrocoustic® Fire Resistant Sealant.
- 8. Fire resistance: 60 minutes integrity and insulation in accordance with BS 476-21.
- 9. Colour/ Finish:
- 10. Flooring: None.
- 11. Nominal Thickness: 169 mm.
- 12. Fillet: 80 mm wide x 12 mm thick PROMAT SUPALUX® fillets. Steel wire nails.
- 13. Joists: 145 mm deep x 35 mm wide, minimum strength class C16 Truss.
- 14. Perimeter: 50 x 50 mm softwood timber noggings required at the perimeter.

15 Gypsum board Liner Main Building Only - Underside of Truss

- 1. Manufacturer: [Siniat](#)
- 2. Contact details
 - 2.1. Address: Gordano House
Marsh Lane
Easton-in-Gordano
Bristol
BS20 0NE
 - 2.2. Telephone: [+44 \(0\)1275 377773](tel:+44(0)1275377773)
 - 2.3. Web: <https://www.siniat.co.uk>
 - 2.4. Email: technical.siniat@etexbp.co.uk
- 3. Product reference: Siniat Fire Boards
- 4. Description: Under truss rafters
- 5. Substrate: truss rafters
- 6. Fire performance
 - 6.1. Reaction to fire: 60mins
- 7. Linings: Two layers 15 mm fire line board
 - 7.1. Fixing: As Siniat's recommendations
- 8. Finishing:
 - 8.1. Primer/ Sealer: Not required
- 9. Other requirements: Fire-stopping around service penetrations as [section P12](#).

25 Ceiling lining on timber Toilet Block Only

- 1. Description: Plasterboard ceiling, Moisture Resistant, impact resistant
- 2. Substrate: Timber flat roof joist
- 3. Metal resilient (acoustic) bars: Not required
- 4. Fire performance
 - 4.1. Reaction to fire: To BS EN 13501-1. Class B-s3, d2 or better
 - 4.2. Fire resistance of complete ceiling assembly: To BS EN 13501-2, EI 30 or better
- 5. Linings: Siniat LaDura 15mm plasterboard
 - 5.1. Fixing: Screws at centres to board manufacturer's recommendations
- 6. Finishing: Skim coat plaster
 - 6.1. Primer/ Sealer: As recommended by board manufacturer for vapour control
- 7. Accessories: Metal beads/ stops recommended by the board manufacturer

8. Other requirements: Fire-stopping around services as section P12.

33 Timber stud Main Building Only

1. Description: Cafe - Timber Stud Walls
2. Manufacturer: Siniat
 - 2.1. Product reference: 15mm Siniat Fire Board™
3. Studs:
 - 3.1. Type: 100x50mm Treated Softwood studs
 - 3.2. Centres: 600 mm
 - 3.3. Head condition: Timber joists
 - 3.4. Deflection allowance: 15 mm
4. Fire performance: A2-s1,d0
 - 4.1. Reaction to fire: 60mins
 - 4.2. Fire resistance of complete assembly: To BS EN 13501-2, EI 60 or better.
5. Insulation: Mineral wool to [BS EN 13162](#); density not less than 30 kg/m³
 - 5.1. Recycled content: 25% (minimum) to [BS EN ISO 14021](#)
 - 5.2. Thickness: 100 mm
6. Resilient layer: Not required
7. Linings: 15mm Siniat Fire Board™
 - 7.1. Screw centres: As per manufacturers recommendations
8. Finishing: Skim coat plaster
 - 8.1. Primer/ Sealer: As recommended by board manufacturer for a paint finish.
9. Accessories: Metal beads/ stops recommended by board manufacturer
10. Other requirements: Fire-stopping around services as section P12.

55 Rigid sheet casing systems Main Building Only - Steel column encasement

1. Manufacturer: [Siniat](#)
 - 1.1. Contact details
 - 1.1.1. Address: Gordano House
Marsh Lane
Easton-in-Gordano
Bristol
BS20 0NE
 - 1.1.2. Telephone: [+44 \(0\)1275 377773](tel:+44(0)1275377773)
 - 1.1.3. Web: <https://www.siniat.co.uk>
 - 1.1.4. Email: technical.siniat@etexbp.co.uk
 - 1.2. Product reference: [PROMATECT®-XS 3 Sided Beam Encasement ST PXS-005S-20](#)
2. Support: Top Angle Framing: Siniat MFC2550 Metal Angle.
3. Insulation:
4. Linings: Outer Layer: 20 mm Promat PROMATECT®-XS.
5. Fasteners: Fixing to Top Angle: Minimum M3.5 x 45 mm Self Tapping Screws at maximum 300 mm centres. Fixing to Board Edge: Chisel point staples minimum 50 x 10.5 x 1.5 mm, at maximum 100 mm centres. Vertical Board Joint fixing: Boards fixed to coverstrips using chisel point staples minimum 50 x 10.5 x 1.5 mm, at maximum 100 mm centres on each side of the vertical joint.
6. Finish:
7. Fire resistance: To EN 13381-4, up to 60 minutes.

8. Fire classification: Classified to EN 13501-2.
9. Temperature: 550□.
10. Section factor: 351 m-1.
11. Steel sections: Maximum depth: 600 mm. Maximum width: 270 mm.
12. Moisture resistance:
13. System code: ST PXS-005S-20.

Installation

60 Ceilings

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

62 Timber framing for partitions/ wall linings

1. Setting out: Accurately aligned and plumb.
 - 1.1. Frame / Stud positions: Equal centres to suit specified linings, maintaining sequence across openings.
 - 1.2. Additional studs: To support vertical edges of boards.
 - 1.3. Pattressing: Not required.
2. Fixing centres at perimeters (maximum): 600 mm.
3. Openings: Form accurately.
 - 3.1. Service penetrations: Allow for associated fire-stopping.

65 Dry lining generally

1. General: Use fixing, jointing, sealing and finishing materials, components and installation methods recommended by board manufacturer.
2. Standard: Gypsum plasterboard to [BS EN 520](#).
3. Evidence of compliance: All sheets to be CE/ UKCA or UKNI marked. Submit Declaration of Performance (DoP).
4. Cutting gypsum boards: Neatly and accurately without damaging core or tearing paper facing.
5. Cut edges: Minimize and position at internal angles wherever possible. Mask with bound edges of adjacent boards at external corners.
6. Two layer boarding: Stagger joints between layers.
7. Finishing: Neatly to give flush, smooth, flat surfaces free from bowing and abrupt changes of level.

67 Skim coat plaster finish

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

69 Installing beads/ stops

1. Cutting: Neatly using mitres at return angles.
2. Fixing: Securely using longest possible lengths, plumb, square and true to line and level, ensuring full contact of wings with substrate.

3. **Finishing:** After joint compounds/ plasters have been applied, remove surplus material while still wet from surfaces of beads exposed to view.

70 Additional supports

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

85 Installing mineral wool insulation

1. **Fitting insulation:** Closely butted joints and no gaps. Use fasteners to prevent slumping or displacement.
2. **Services**
 - 2.1. Electrical cables overlaid by insulation: Size accordingly.
 - 2.2. Ceilings: Cut insulation around electrical fittings, etc.

87 Sealing gaps and air paths

1. **Sealing:** Apply sealant to perimeter abutments and around openings as a continuous bead with no gaps.
2. **Application:** To clean, dry and dust free surfaces as a continuous bead with no gaps.
 - 2.1. Gaps greater than 6mm between floor and underside of gypsum board: After sealing, fill with joint compound.

88 Fire-stopping at perimeters of dry lining systems

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

90 Seamless jointing

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

91 Vertical joints

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

92 Horizontal joints

1. **Surfaces exposed to view:** Horizontal joints not permitted. Seek instructions where height of partition/ lining exceeds maximum available length of board.
2. **Two layer boarding:** Stagger joints between layers by at least 600 mm.

3. Edges of boards: Support using additional framing.
 - 3.1. Two layer boarding: Support edges of outer layer.

94 Fixing gypsum board to timber

1. Fixing to timber: Securely at the following centres (maximum):
 - 1.1. Nails: 150 mm.
 - 1.2. Screws to partitions/ wall linings: 300 mm. Reduce to 200 mm at external angles.
 - 1.3. Screws to ceilings: 230 mm.
2. Position of nails/ screws from edges of boards (minimum)
 - 2.1. Bound edges: 10 mm.
 - 2.2. Cut/ unbound edges: 13 mm.
3. Position of nails/ screws from edges of timber supports (minimum): 6 mm.

Finishing

97 Level of dry lining across joints

1. Sudden irregularities: Not permitted.
2. Joint deviations: Measure from faces of adjacent boards using methods and straightedges (450 mm long with feet/ pads) to [BS 8212](#).
 - 2.1. Tapered edge joints
 - 2.1.1. Permissible deviation (maximum) across joints when measured with feet resting on boards: 3 mm.
 - 2.2. External angles
 - 2.2.1. Permissible deviation (maximum) for both faces: 4 mm.
 - 2.3. Internal angles
 - 2.3.1. Permissible deviation (maximum) for both faces: 5 mm.

Ω End of Section

K13

Rigid sheet fine linings and panelling

Types of lining and panelling

145 Proprietary plastics cladding Main Building Only - Kitchen / Servery and Bar Areas

1. Description: wall to wall cladding
2. Substrate: plastered block work
3. Panels
 - 3.1. Manufacturer: Jemiclad
 - 3.1.1. Product reference: Hygenic Wall Cladding
 - 3.2. Thickness: 2 - 2.5mm
 - 3.3. Colour/ pattern/ finish: TBC
 - 3.4. Edge treatment: wall to wall lengths
4. Installation
 - 4.1. Method of fixing panels: Adhesive as sheet manufacturer's recommendations
 - 4.2. Joint treatment: Butt jointed with welded joints
5. Accessories: Standard edge trim

147 Proprietary plastics cladding Main Building & Toilet Block - Splash Backs

1. Description: Splash backs to basins, etc
2. Substrate: Blockwork
3. Panels
 - 3.1. Manufacturer: Jemiclad
 - 3.1.1. Product reference: Hygenic Wall Cladding
 - 3.2. Thickness: 2 - 2.5mm
 - 3.3. Colour/ pattern/ finish: TBC
 - 3.4. Edge treatment: wall to wall lengths
4. Installation
 - 4.1. Method of fixing panels: Adhesive as sheet manufacturer's recommendations
 - 4.2. Joint treatment: Butt jointed with welded joints
5. Accessories: Standard edge trim

General requirements

260 Environmental conditions

1. General requirements prior to starting work specified in this section: Building weathertight; wet trades completed and affected areas dried out.
2. Temperature and humidity before, during and after fixing lining/ panelling: Maintained at levels approximating to those which will prevail after building is occupied.

Fabrication/ fixing/ finishing

310 Accuracy of fabrication

1. Site dimensions: Take as necessary before starting fabrication.

- 1.1. Discrepancies with drawings: Report without delay and obtain instructions before proceeding.
2. Permissible deviations for panels
 - 2.1. Length: ± 1.5 mm.
 - 2.2. Width: ± 1.5 mm.
 - 2.3. Squareness (taking the longer of 2 sides at a corner as a baseline and measuring the deviation of the shorter side from the baseline perpendicular): ± 1.5 mm in 1 m.
 - 2.4. Flatness (of panels with a core thickness of 12 mm and over, as delivered to site): ± 1 mm under a 600 mm straightedge.

350 Fixing linings and panelling

1. **Setting out:** Accurate, true to line and level, free from undulations and lipping, with lines and joints aligned, straight and parallel unless specified otherwise.
2. **Movement allowance:** Adequate for future moisture and temperature movement of boards.
3. **Fixing of panels:** Secure, to prevent pulling away, bowing, or other movement during use.
4. **Methods of fixing and fasteners:** As section Z20 unless specified otherwise.
5. **Trims:** Wherever possible, to be in unjointed lengths between angles or ends of runs.
 - 5.1. **Running joints:** Where unavoidable, submit proposals for location and method of jointing.
 - 5.2. **Angle joints:** Mitred, unless specified otherwise.

Ω End of Section

K20

Timber board flooring/ sarking/ linings/ casings

To be read with preliminaries/ general conditions.

15 Timber board flooring & StoreFloor Tri-Support Main Building Only

1. Description: Loft Flooring (from loft hatch to Plant Room floor) and StoreFloor Tri-Support
2. Manufacturer: Contractor's Choice
 - 2.1. Product reference: Contractor's Choice
3. Substrate: StoreFloor Tri-Support on Truss Rafters
4. Boards
 - 4.1. Standard: [BS EN 14342](#).
 - 4.1.1. Evidence of compliance: Submit.
 - 4.2. Finished thickness: Min. 18mm (all to Structural Engineer's approval)
 - 4.3. Edge profile: Tongued-and-grooved
 - 4.4. Moisture content at time of fixing: 12–16
5. Fixing: 45 mm carbon steel wood screws 45 mm carbon steel wood screws 45 mm carbon steel wood screws
 - 5.1. Fixing centres: In accordance with [BS 8201](#).

Workmanship

41 Treated timber

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

50 Fixing boards

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

Ω End of Section

K32

Panel cubicles/ duct and wall linings/ screens

To be read with preliminaries/ general conditions.

10 Panel cubicle systems (WCs) Main Building & Toilet Block

1. Manufacturer: [Bushboard Washroom Systems Ltd](#)
 - 1.1. Contact details
 - 1.1.1. Address: Unit 1400
1st Floor Montagu Court
Kettering Venture Park
Kettering
Northamptonshire
NN15 6XR
 - 1.1.2. Telephone: +44 (0)1536 533620
 - 1.1.3. Web: www.bushboard-washrooms.co.uk
 - 1.1.4. Email: washrooms@bushboard-washrooms.co.uk
 - 1.2. Product reference: [Tough Stuff Panel Cubicle \(SGL\)](#)
2. Panels: SGL panel, 1400 kg/m³, polished black, radius edges.
3. Panel supports: Aluminium frames.
4. Doors: SGL panel, 1400 kg/m³, polished black, radius edges.
5. Lippings: 1 mm PVC lipping.
6. Hardware: Pilasters, headrail, legs, hinges and channels.
7. System accessories: Toilet roll holders. Coat hooks.
8. Pilaster shape: Square.
9. Floor Clearance: Standard.
10. Other requirements: Not required.
11. Colour: To be confirmed
12. Doors, Partitions & Pilasters: To be confirmed
13. Headrail: To be confirmed
14. Faceplate & Pilaster Foot: To be confirmed
15. Hinges & Channels: To be confirmed
16. Overall thickness: 19 mm (nominal).
17. Height: 2140mm (overall).

15 Duct and wall panel lining systems Main Building & Toilet Block - BACK PANEL TO WCs (excluding Dis. WCs)

1. Manufacturer: [Bushboard Washroom Systems Ltd](#)
 - 1.1. Contact details
 - 1.1.1. Address: Unit 1400
1st Floor Montagu Court
Kettering Venture Park
Kettering
Northamptonshire
NN15 6XR
 - 1.1.2. Telephone: +44 (0)1536 533620
 - 1.1.3. Web: www.bushboard-washrooms.co.uk

1.1.4. Email: washrooms@bushboard-washrooms.co.uk

1.2. Product reference: [Ezeeduct Panels \(HPL\)](#)

2. Panels: SGL panel, 1400 kg/m³, polished black, radius edges.
3. Non-integral finishes: Post formed vertical edges.
4. Fasteners: Removable access panels (locked and hinged to WC cistern)
5. Supporting frame
 - 5.1. Duct panels: Factory assembled rigid extruded aluminium frame.
 - 5.2. Wall panels: Factory assembled rigid extruded aluminium frame.
6. Flash gap panels: Factory assembled rigid extruded aluminium frame.
7. System accessories: Duct locks.
8. Skirting: Light grey.
9. Overall thickness: 19 mm (nominal).
10. Fixing: Tiebacks (threaded rods).
11. Size: As schedule.
12. Colour: 34 laminates and 3 digital prints.
13. Colour: 34 laminates and 3 digital prints.
14. Overall height: 3000 mm (maximum).

18 Samples

1. General: Before placing orders submit representative samples of the following: Panel and door material and colours.
2. [Delivered materials/ products](#): To match samples.

20 Installation

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

Ω End of Section

K40

Demountable suspended ceilings

To be read with preliminaries/ general conditions.

10 Modular suspended ceiling systems Main Building Only - Dry Areas

1. Description: Main Lobby / Reception & Corridor Areas -
2. Ceiling system manufacturer: [Zentia](#)
 - 2.1. Contact details
 - 2.1.1. Address: Zentia
Kingsway South
Team Valley
Gateshead
United Kingdom
NE11 0SP
 - 2.1.2. Telephone: +44 (0)191 497 1000
 - 2.1.3. Web: <https://www.zentia.com>
 - 2.1.4. Email: info@zentia.com
 - 2.2. Product reference: [Aruba \(Tegular15 edge infills\)](#)
3. System performance: Aruba Max
4. Ceiling support: Gridline 15 Shadow.
5. Support fasteners:
6. Ceiling units: 600 x 600 x 15 mm tegular edge mineral tiles.
7. Infill colour: Global white.
8. Weight: Infill units: 3.6 kg/m².
9. Reaction to fire: To EN 13501-1, infill units: Euroclass A2-s1, d0; support grid: Euroclass A1.
10. Sound absorption: Infill units: $\alpha_w = 0.60$; Class C.
11. Sound attenuation: Infill units: Dnfw = 34 dB.
12. Noise reduction coefficient: Infill units: 0.55.
13. VOC emissions: Infill units: The VOC emission performance in accordance with the French labelling requirements: A.
14. Formaldehyde emissions: Infill units: To EN 13964, formaldehyde emission level E1 = Best test result possible.
15. RelativeHumidity: Infill units: 95%.
16. Structural soffits: Precast beam and block
17. Fire performance
 - 17.1. Reaction to fire: Euroclass A2-s1, d0
18. Grid
 - 18.1. Suspension system: Install all hangers, fixings, primary supports, main runners, cross members, perimeter trims, splines, noggings, clips bracing, bridging, etc. necessary to complete the installation.
 - 18.2. Form: MicroLook 90 Suspension Syst
 - 18.3. Exposure: Exposed 15mm Grid
19. Access: Access panels indicated on drawing
20. Accessories: Timber edge battens
21. Integrated services fittings: Hangers and housings for linear luminaires
22. Other requirements: To accommodate Access Ladder Hatch

15 Modular suspended ceiling systems Main Building Only - Wet Areas

1. Description: Changing Rooms & Shower Areas / Official Changing Rooms
2. Ceiling system manufacturer: [Zentia](#)
 - 2.1. Contact details
 - 2.1.1. Address: Zentia
Kingsway South
Team Valley
Gateshead
United Kingdom
NE11 0SP
 - 2.1.2. Telephone: [+44 \(0\)191 497 1000](tel:+44(0)1914971000)
 - 2.1.3. Web: <https://www.zentia.com>
 - 2.1.4. Email: info@zentia.com
 - 2.2. Product reference: [Aruba hH \(High Humidity\)](#)
3. System performance:
4. Ceiling support: Gridline 24 Corrosive Resistant.
5. Support fasteners:
6. Ceiling units: Mineral infill units
7. System accessories:
8. Dimensions: 600 x 600 x 15 mm.
9. Acceptable relative air humidity: Infill units: 99%.
10. Sound absorption: Infill units: $\alpha_w = 0.60$; Class C.
11. Sound attenuation: Infill units: $D_{nfw} = 34$ dB.
12. Reaction to fire: To EN 13501-1, infull units: Euroclass A2-s1, d0.
13. Weight: Infill units: 3.6 kg/m².
14. RelativeHumidity: Infill units: 95%.
15. Grid
 - 15.1. Suspension system: Install all hangers, fixings, primary supports, main runners, cross members, perimeter trims, splines, noggings, clips bracing, bridging, etc. necessary to complete the installation.
16. Accessories: Timber edge battens
17. Integrated services fittings: Hangers and housings for linear luminaires

20 Modular suspended ceiling systems Main Building Only - Wet Areas

1. Description: Kitchen / Bar / Bar Store / Baby Change / First Aid / Wcs
2. Ceiling system manufacturer: [Zentia](#)
 - 2.1. Contact details
 - 2.1.1. Address: Zentia
Kingsway South
Team Valley
Gateshead
United Kingdom
NE11 0SP
 - 2.1.2. Telephone: [+44 \(0\)191 497 1000](tel:+44(0)1914971000)
 - 2.1.3. Web: <https://www.zentia.com>
 - 2.1.4. Email: info@zentia.com
 - 2.2. Product reference: [Hygiene \(Board edge profiles, cleanroom classified ISO 4\)](#)

3. System performance:
4. Ceiling support: Clean room 24, Global white.
5. Support fasteners:
6. Ceiling units: 600 x 600 x 18 mm board edge mineral tiles in Global White (9702M).
7. System accessories:
8. Weight: Infill units: 1.3 kg/m².
9. Reaction to fire: To EN 13501-1, infill units: Euroclass A2-s1, d0; support grid: Euroclass A1.
10. Sound absorption: Infill units: $\alpha_w = 0.95$; Class A.
11. Noise reduction coefficient: Infill units: 0.95.
12. Colour (Light reflectance value (LRV): Infill units: 80%.
13. Cleanroom classification: To ISO 14644-1, ISO 4.
14. VOC emissions: Infill units: The VOC emission performance in accordance with the French labelling requirements: A.
15. Formaldehyde emissions: Infill units: To EN 13964, formaldehyde emission level (E1 = Best test result possible).
16. Ceiling support: Gridline 24 Corrosive Resistant.
17. Grid
 - 17.1. Suspension system: Install all hangers, fixings, primary supports, main runners, cross members, perimeter trims, splines, noggings, clips bracing, bridging, etc. necessary to complete the installation.
18. Accessories: Timber edge battens
19. Integrated services fittings: Hangers and housings for linear luminaires

Components

30 Samples

1. General: Submit representative samples of the following: Panels for ceiling systems K40/10, 15 & 20.

31 Standards

1. Steel panels: To BS EN 10346.
2. Aluminium sheet, strip and plate: To BS EN 485-1 and -2.
3. Aluminium bars, tubes and sections: To relevant parts of BS EN 515, BS EN 573, BS EN 755 and BS EN 12020.

Execution

40 Workmanship generally

1. Fixing: Secure. In accordance with manufacturers' recommendations and in accordance with BS EN 13964. Provide additional bracing and stiffening to give a stable ceiling system.
2. Setting out: Accurate. Provide level soffits free from undulations and lipping.
3. Infill and access units, integrated services: Fitted correctly and aligned.
4. Lines and joints: Straight and parallel to walls, unless specified otherwise.
5. Edge infill units size (minimum): Half standard width or length.
6. Corner infill units size (minimum): Half standard width and length.
7. Grid: Position to suit infill unit sizes. Allow for permitted deviations from nominal sizes of infill units.
8. Infill joints and exposed suspension members: Straight, aligned and parallel to walls, unless specified otherwise.

9. **Suitability of construction:** Give notice where building elements and features to which the ceiling systems relate are not square, straight or level.

50 Installing hangers

1. **General:** Straighten and tension before use.
2. **Installation:** Install vertical without bends or kinks. Do not allow hangers to press against fittings, services, or insulation covering ducts/ pipes.
3. **Obstructions:** Where obstructions prevent vertical installation, either brace diagonal hangers against lateral movement, or hang ceiling system on an appropriate rigid sub-grid bridging across obstructions and supported to prevent lateral movement.
4. **Extra hangers:** Provide as necessary to carry additional loads.
5. **Fixing**
 - 5.1. **Wire hangers:** Tie securely at top and bottom with tight bends to loops to prevent vertical movement.
 - 5.2. **Angle/ Strap hangers:** Do not use rivets for top fixing.

51 Installing perimeter trims

1. **Jointing:** Neat and accurate, without lipping or twisting.
 - 1.1. **External and internal corners:** Mitre joints generally. Overlap joints at internal corners are
 - 1.2. **Intermediate butt joints:** Minimize. Use longest available lengths of trim. Align adjacent lengths.
2. **Fixing:** Fix firmly to perimeter wall, edge battens or other building structure.
 - 2.1. **Fasteners:**
 - 2.2. **Fixing centres:** 450 mm

52 Installing board-suspended ceiling systems

1. **Cut boards:** Neat and accurate.
2. **Fixing to grid**
 - 2.1. **Board edges:** Fully support. Screw to grid members. Set heads of screws below surface of boards and fill flush with surface.
 - 2.2. **Boards applied in two or more layers:** Stagger joints.
3. **Movement joints:** Provide as appropriate for the area of ceiling system and/ or to coincide with movement joints in surrounding structure.

53 Openings in ceiling materials

1. **General:** Neat and accurate. To suit sizes and edge details of fittings. Do not distort ceiling system.

65 Integrated services

1. **General:** Position services accurately, support adequately. Align and level in relation to the ceiling and suspension system. Do not diminish performance of ceiling system.
2. **Small fittings:** Support with rigid backing boards or other suitable means. Do not damage or distort the ceiling.
 - 2.1. **Reaction to fire rating of additional supporting material:** Not less than ceiling material.
3. **Services outlets**
 - 3.1. **Supported by ceiling system:** Provide additional hangers.
 - 3.2. **Independently supported:** Provide flanges to support ceiling system.

66 Ceiling-mounted luminaires

1. **Support:** Independent
 - 1.1. **Ceiling supported luminaires:** Modifications and/ or extra support required: To each luminaire.
 - 1.2. **Independently supported luminaires:** Suspension adjusted to line and level of ceiling.
2. **Surface mounted luminaires:** Units installed so that in the event of fire, the designed grid expansion provision is not affected.
3. **Modular fluorescent recessed luminaires:** Compatible with ceiling module. Extension boxes must not foul ceiling system.
4. **Recessed rows of luminaires:** Provide flanges for support of grid and infill units, unless mounted above grid flanges. Retain in position with lateral restraint.
5. **Fire-protecting/ resisting ceiling systems:** Luminaires must not diminish protection integrity of ceiling system.
6. **Access:** Provide access for maintenance of luminaires.

67 Mechanical services

1. **Fan coil units**
 - 1.1. **Inlet and outlet grilles:** Trim ceiling grid and infill units to suit.
 - 1.2. **Space beneath:** Sufficient for ceiling system components.
 - 1.3. **Suspension and connections:** Permit accurate setting out and levelling of fan coil units.
2. **Air grilles and diffusers**
 - 2.1. **Setting out:** Accurate and level.
 - 2.2. **Linear air diffusers:** Retain in place with lateral restraint. Provide flanges for support of grid and infill units.
 - 2.3. **Grille/ diffuser ceiling joints:** Provide smudge rings and edge seals.
3. **Smoke detectors and PA speakers**
 - 3.1. **Ceiling infill units:** Scribe and trim to suit.
 - 3.2. **Independent suspension:** Required
 - 3.3. **Flexible connections:** Required.
4. **Sprinkler heads:** Carefully set out and level.

Completion

80 Tools

1. **Access tools:** At Completion supply one set of the following: long operating poles for access panels.

85 Spares

1. **General:** At practical completion, supply the following: tiles for ceiling system K40/10, 15 & 20.

Ω End of Section

L10

Windows/ rooflights/ screens/ louvres

To be read with preliminaries/ general conditions.

10 Evidence of performance

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

25 Aluminium window units Main Building & Toilet Block - Windows

1. Standard: Non-fire and/ or smoke-rated windows to BS EN 14351-1 and BS 4873
2. Manufacturer: [Technal](#)
 - 2.1. Contact details
 - 2.1.1. Address: Hydro Building Systems UK Ltd
Severn Drive
Tewkesbury
Gloucestershire
GL20 8SF
 - 2.1.2. Telephone: [+44 \(0\)1684 853 500](tel:+441684853500)
 - 2.1.3. Web: www.technal.co.uk
 - 2.1.4. Email: info.uk@technal.com
 - 2.2. Product reference: [SOLEAL Next 75 Sustainable Aluminium Window \(SOLEAL Next 75 - Visible Frame Open Out.\)](#)
3. Standard: To BS6375-1, BS6375-2, BS6375-3, EN 14351-1 and Pas24.
4. Dimensions and configurations: refer to drawings
5. Product performance
 - 5.1. Weather performance
 - 5.1.1. UK exposure category: 2000 Pa.
 - 5.1.2. Air permeability: To EN 1026: 2001, EN 12207: 2001, up to Class 4.
 - 5.1.3. Watertightness: To BS EN 1027: 2001, EN 12208: 2001, up to Class E2400.
 - 5.1.4. Resistance to wind load: To BS EN 12211: 2001, EN 12210: 2001, up to Class CE2000.
 - 5.2. Durability
 - 5.2.1. Operation and strength characteristics: To BS 6375-2, up to Class 4.
 - 5.2.2. Loadbearing capacity of safety devices: To BS EN 14351-1:2002.
 - 5.3. Safety
 - 5.3.1. Security level: To PAS 24.
 - 5.4. Environmental
 - 5.4.1. Acoustic performance rating: Rw up to 48 dB.
 - 5.5. Thermal
 - 5.5.1. Whole window U-value: 1.2 W/m²K.
6. Frame
 - 6.1. Profile: Standard.
 - 6.2. Finish as delivered
 - 6.2.1. Coating: Extruded with Hydro CIRCAL© aluminium.
 - 6.2.2. Colour: TBC

7. Glazing or infill
 - 7.1. Standard: Relevant parts of BS EN 1279.
 - 7.2. Requirements: Infill thickness up to 69 mm.
8. Hardware: Concealed hinges, thin hardware components and finishing covers tie rod and frame groove.
9. Operation
 - 9.1. Type: Manual generally (Electric operated to high level windows in Badminton Hall).
10. Fixing features:
11. Infill: Up to 100 kg.
12. Opening: Visible open-out.
13. Opening Configuration: refer to drawings
14. Handles: EXCLUSIVE® Handles Collection.
15. Locking: Concealed locking sensor.

46 Framed rooflights Main Building Only

1. Description: Rooflights Generally
2. Standard: To [BS EN 14351-1](#).
3. Manufacturer: [VELUX Company Ltd](#)
 - 3.1. Contact details
 - 3.1.1. Address: Woodside Way
Glenrothes
Fife
KY7 4ND
 - 3.1.2. Telephone: [+44 \(0\)1592 778873](tel:+441592778873)
 - 3.1.3. Web: <https://www.velux.co.uk/>
 - 3.1.4. Email: architecture@velux.co.uk
 - 3.2. Product reference: SK10 & SK6 (Electric Operated - wired)
4. Frame: Manufacturer's standard
 - 4.1. Material: Manufacturer's standard
 - 4.2. Finish: Manufacturer's standard
5. Thermal performance (U-value maximum): 1.2 W/m²K
6. Fire performance (minimum): Manufacturer's standard
7. Glazing details: Insulating glass units incorporating low-emissivity glass
 - 7.1. Beading: Manufacturer's standard
8. Flashings: By window manufacturer to suit Plain natural slate.
9. Accessories: Flashings, fittings and fixings, VELUX ACTIVE with NETATMO, Rain sensor, Pleated blinds for South facing Rooflights.
10. Fixing: Manufacturer's standard

75 Sealant joints

1. Description: Generally
2. Sealant
 - 2.1. Manufacturer: Submit proposals
 - 2.1.1. Product reference: Submit proposals
 - 2.2. Colour: To match

- 2.3. Application: As [section Z22](#) to prepared joints. Finish triangular fillets to a flat or slightly convex profile.

80 Ironmongery

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

Ω End of Section

L20

Doors/ shutters/ hatches

Clauses

Read in conjunction with Preliminaries and general conditions

10 Evidence of performance

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

15 Fire-resisting and smoke control pedestrian doors/ door assemblies/ doorsets

1. **UKCA/ UKNI/ CE marked fire-resisting and smoke control pedestrian doorsets:** To BS EN 16034 and in conjunction with BS EN 13241, BS EN 14351-1 and BS EN 14351-2.
2. **Door products:** As defined in BS EN 12519.
3. **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/ door assembly/ doorset supplied will comply with the specified requirements for fire-resisting and/ or smoke control if tested to BS 476-22, BS EN 1634-1, BS EN 1634-3 or is UKCA/ UKNI/ CE marked to BS EN 16034. Specified values should not be a combination of both standards. Such certification must cover door and frame materials, glass and glazing materials and their installation, essential and ancillary ironmongery, hinges and seals.
4. Components, assemblies or sets will be marked to the relevant UKCA/ UKNI/ CE marking European product standard (hEN), national product standard and/ or third-party certification rating.

20 Non-fire-resisting pedestrian doors/ door assemblies/ doorsets

1. Provide certified evidence, in the form of a product conformity certificate or engineering assessment, that each pedestrian door/ doorset/ assembly supplied will comply with the specified requirements to BS EN 14351-1. Such certification must cover door and frame materials, glass and glazing materials and their installation, essential and ancillary ironmongery, hinges and seals.
2. Components and assemblies will be marked to the relevant UKCA/ UKNI/ CEI marking European product standard (hEN), national product standard and/ or third-party certification rating.

30 Wood flush doorset Main Building Only - FIRE RATED / VISION PANEL/ACOUSTIC (SINGLE & DOUBLE DOORS) - Office & Function Room doors / Door Assembly

1. **Manufacturer:** [Shadbolt International](#)
 - 1.1. **Contact details**
 - 1.1.1. **Address:** Springwood Drive
Braintree
Essex
CM7 2YN
 - 1.1.2. **Telephone:** +44 (0)1376 333376
 - 1.1.3. **Web:** www.shadbolt.co.uk
 - 1.1.4. **Email:** nbs@shadbolt.co.uk
 - 1.2. **Product reference:** [Sound Insulating Door \(Sound Insulating Door, 42 dB \(maximum\).\)](#)
2. **Thickness:** 59 mm.
3. **Door leaf size:** As schedule.
4. **Performance**

- 4.1. Fire performance
 - 4.1.1. Fire integrity: To BS 476-22, 30 minutes.
- 4.2. Acoustic performance: 44 dB SRI Rw (maximum) with acoustic seals
- 5. Facings: Wood veneer, species.
- 6. Lippings: Lip four edges concealed.
- 7. Hardware: As schedule.
- 8. Finish: as manufacturer's standard for veneered finish
- 9. Glazed aperture: Clear insulating. Door panel has two vision panels
- 10. Smoke seals: as schedule
- 11. Facings: Veneered.
- 12. Fire rating: FD30. FD60. - refer to door schedule
- 13. Frame: To suit wall thicknesses.
- 14. Facings: For veneered door leaves Shadbolt will generally select a species of compatible appearance for the frame
- 15. Lippings: hardwood exposed lippings to long edges Exposed lippings to long edges
- 16. Other requirements: All public doors to be fitted with anti-finger traps by Safehinge Ltd, Level 4, Skypark 3, 14 Elliot Place, Glasgow, G3 8EP safehinge.com; product FAST-G2

32 Wood doorsets Main Building Only - (FIRE RATED / VISION PANEL/FLUSH DOORS (Corridor Doors / Door Assembly))

- 1. Manufacturer: [Shadbolt International](#)
 - 1.1. Contact details
 - 1.1.1. Address: Springwood Drive
Braintree
Essex
CM7 2YN
 - 1.1.2. Telephone: [+44 \(0\)1376 333376](tel:+441376333376)
 - 1.1.3. Web: www.shadbolt.co.uk
 - 1.1.4. Email: nbs@shadbolt.co.uk
 - 1.2. Product reference: [Shadcore Fire Doorset FD30, FD60 \(Shadcore Doorset FD60\)](#)
- 2. Configuration: As schedule.
- 3. Doorset size: As schedule.
- 4. Performance
 - 4.1. Fire performance
 - 4.1.1. Fire integrity: To BS 476-22, 30 minutes. To BS 476-22, 60 minutes.
 - 4.1.2. Smoke control: Required.
- 5. Frame
 - 5.1. Material: Hardwood.
- 6. Door leaf
 - 6.1. Core: Solid core.
 - 6.2. Facings: Wood veneer, species.
 - 6.3. Lippings: hardwood exposed lippings to long edges Exposed lippings to long edges
 - 6.4. Glazing
 - 6.4.1. Type: Vision panels.
- 7. Hardware: As schedule.
- 8. Door construction: High density solid particleboard core.

9. Durability: Severe duty classification.
10. Other requirements: All public doors to be fitted with anti-finger traps by Safehinge Ltd, Level 4, Skypark 3, 14 Elliot Place, Glasgow, G3 8EP safehinge.com; product FAST-G2

34 Wood doorsets Main Building Only - (FIRE RATED / FLUSH DOORS (CLEANERS DOORS, ETC))

1. Manufacturer: [Shadbolt International](#)
 - 1.1. Contact details
 - 1.1.1. Address: Springwood Drive
Braintree
Essex
CM7 2YN
 - 1.1.2. Telephone: [+44 \(0\)1376 333376](tel:+44(0)1376333376)
 - 1.1.3. Web: www.shadbolt.co.uk
 - 1.1.4. Email: nbs@shadbolt.co.uk
 - 1.2. Product reference: [Shadcore Fire Doorset FD30, FD60 \(Shadcore Doorset FD60\)](#)
2. Configuration: As schedule.
3. Doorset size: As schedule.
4. Performance
 - 4.1. Fire performance
 - 4.1.1. Fire integrity: To BS 476-22, 30 minutes. To BS 476-22, 60 minutes.
 - 4.1.2. Smoke control: As schedule
5. Frame
 - 5.1. Material: Hardwood.
 - 5.2. Species:
6. Door leaf
 - 6.1. Core: Solid core.
 - 6.2. Facings: Wood veneer, species.
 - 6.3. Lippings: Lip four edges exposed.
7. Hardware: As schedule.
8. Door construction: High density solid particleboard core.
9. Durability: Severe duty classification.

36 Wood flush doorsets Main Building Only - (NON -FIRE RATED / FLUSH DOORS (WC doors))

1. Manufacturer: [Shadbolt International](#)
 - 1.1. Contact details
 - 1.1.1. Address: Springwood Drive
Braintree
Essex
CM7 2YN
 - 1.1.2. Telephone: [+44 \(0\)1376 333376](tel:+44(0)1376333376)
 - 1.1.3. Web: www.shadbolt.co.uk
 - 1.1.4. Email: nbs@shadbolt.co.uk
 - 1.2. Product reference: [Shadcore Fire Door FD30, FD60 NFR](#)
2. Format:
3. Door leaf size: As schedule.

4. Performance
5. Door structure: High density solid particleboard core.
6. Facings: Wood veneer, species.
7. Lippings: Lip four edges exposed.
8. Hardware: As schedule.
9. Facings: For veneered door leaves Shadbolt will generally select a species of compatible appearance for the frame
10. Other requirements: All public WC & Dis WC doors to be fitted with anti-finger traps by Safehinge Ltd, Level 4, Skypark 3, 14 Elliot Place, Glasgow, G3 8EP safehinge.com; product FAST-G2

40 Aluminium External Doors Main Building Only - Entrance Doors

1. Description: EXTERNAL French Doors (Double Leaf (Full Glazed) - Refer to set of drawings/schedules
2. Manufacturer: [Technal](#)
 - 2.1. Contact details
 - 2.1.1. Address: Hydro Building Systems UK Ltd
Severn Drive
Tewkesbury
Gloucestershire
GL20 8SF
 - 2.1.2. Telephone: [+44 \(0\)1684 853 500](tel:+441684853500)
 - 2.1.3. Web: www.technal.co.uk
 - 2.1.4. Email: info.uk@technal.com
 - 2.2. Product reference: SOLEAL Next 75 Sustainable Aluminium Door - Aluminium Thermally Broken Door
3. Finish as delivered: Polyester powder coated to BS EN 12206-1, colour TBC
4. Glazing/ infill details: Clear double glazing
 - 4.1. Manifestation: Not required
 - 4.2. Beading: Internal
5. Ironmongery: As supplied
6. Thermal performance (U-value maximum): 1.6 W/m²K
7. Other requirements: None

41 Aluminium External Doors Main Building Only - French Doors

1. Description: EXTERNAL (French Doors (Full Glazed) - Refer to set of drawings/schedules
2. Manufacturer: [Technal](#)
 - 2.1. Contact details
 - 2.1.1. Address: Hydro Building Systems UK Ltd
Severn Drive
Tewkesbury
Gloucestershire
GL20 8SF
 - 2.1.2. Telephone: [+44 \(0\)1684 853 500](tel:+441684853500)
 - 2.1.3. Web: www.technal.co.uk
 - 2.1.4. Email: info.uk@technal.com
 - 2.2. Product reference: SOLEAL Next 75 Sustainable Aluminium Door - Aluminium Thermally Broken Door
3. Finish as delivered: Polyester powder coated to BS EN 12206-1, colour TBC

4. Glazing/ infill details: Clear double glazing
 - 4.1. Manifestation: Not required
 - 4.2. Beading: Internal
5. Ironmongery: As supplied
6. Thermal performance (U-value maximum): 1.6 W/m²K
7. Other requirements: None

42 Aluminium External Doors Main Building Only - Sliding Folding

1. Description: EXTERNAL (Sliding Folding (Full Glazed) - Refer to set of drawings/schedules
2. Manufacturer: [Technal](#)
 - 2.1. Contact details
 - 2.1.1. Address: Hydro Building Systems UK Ltd
Severn Drive
Tewkesbury
Gloucestershire
GL20 8SF
 - 2.1.2. Telephone: [+44 \(0\)1684 853 500](tel:+441684853500)
 - 2.1.3. Web: www.technal.co.uk
 - 2.1.4. Email: info.uk@technal.com
 - 2.2. Product reference: SOLEAL Next 75 Sustainable Aluminium Door - Aluminium Thermally Broken Door
3. Finish as delivered: Polyester powder coated to BS EN 12206-1, colour TBC
4. Glazing/ infill details: Clear double glazing
 - 4.1. Manifestation: Not required
 - 4.2. Beading: Internal
5. Ironmongery: As supplied
6. Thermal performance (U-value maximum): 1.6 W/m²K
7. Other requirements: None

50 External Steel Doors Carbon steel doorsets Main Building Only - Bin Store / Gas & Elec Cupboard /Plantroom

1. Description: Bin Store & Gas/Elec Cupboard
2. Manufacturer: [HAG Ltd. - The Door Specialists](#)
 - 2.1. Contact details
 - 2.1.1. Address: 1 Oak Lane
Fishponds
Bristol
United Kingdom
BS5 7UY
 - 2.1.2. Telephone: [0800 072 3444](tel:08000723444)
 - 2.1.3. Web: <https://www.hag.co.uk/>
 - 2.1.4. Email: info@hag.co.uk
 - 2.2. Product reference: [Louvred Steel Doors - Double - Armourdoor AD30](#)
3. Standard: To BS 1627.
4. Configuration: Double leaf, single action, louvred.
5. Doorset size: refer to drawings
6. Performance

- 6.1. Intruder resistance
 - 6.1.1. Minimum requirement: To PAS 24.
- 7. Frame
 - 7.1. Material: 1.6 mm Zintec/ Aluzinc.
 - 7.2. Threshold: 5 mm driveable.
 - 7.3. Perimeter seals or inserts: Variable subframe supplied to accommodate site tolerance of ± 30 mm.
 - 7.4. Finish
 - 7.4.1. Coating: Polyester powder-coated.
 - 7.4.2. Texture: Polyester powder-coated.
 - 7.4.3. Colour: TBC
- 8. Door leaf
 - 8.1. Thickness: 48 mm.
 - 8.2. Core: Door blades set at 45° and mounted at 50 mm deep angle frame, which is mounted on a box section sub-frame.
 - 8.3. Panel details: Security door blades manufactured from 1.5 mm sheets lock formed together, fitted with an anti-jemmy astragal.
 - 8.4. Material: 1.5 mm-thick corrosion resistant Zintec/ Aluzinc.
 - 8.5. Finish
 - 8.5.1. Coating: Polyester powder-coated.
 - 8.5.2. Texture: Polyester powder-coated.
 - 8.5.3. External colour:
 - 8.5.4. Internal colour: As External.
- 9. Accessories: None.
- 10. Operation: Manual.
- 11. Other requirements: Mid Bar to Gas/Elec Cupboard so each leaf can be locked independent of the other door (two separate door lock to gas cupboard and electric cupboard)

51 External Steel Doors Carbon steel doorsets Toilet Block Only - Service Cupboard

- 1. Description: Bin Store & Gas/Elec Cupboard
- 2. Manufacturer: [HAG Ltd. - The Door Specialists](#)
 - 2.1. Contact details
 - 2.1.1. Address: 1 Oak Lane
Fishponds
Bristol
United Kingdom
BS5 7UY
 - 2.1.2. Telephone: [0800 072 3444](tel:0800 072 3444)
 - 2.1.3. Web: <https://www.hag.co.uk/>
 - 2.1.4. Email: info@hag.co.uk
 - 2.2. Product reference: [Louvred Steel Doors - Double - Armourdoor AD30](#)
- 3. Standard: To BS 1627.
- 4. Configuration: Double leaf, single action, louvred.
- 5. Doorset size: refer to drawings
- 6. Performance
 - 6.1. Intruder resistance

- 6.1.1. Minimum requirement: To PAS 24.
- 7. Frame
 - 7.1. Material: 1.6 mm Zintec/ Aluzinc.
 - 7.2. Threshold: 5 mm driveable.
 - 7.3. Perimeter seals or inserts: Variable subframe supplied to accommodate site tolerance of ± 30 mm.
 - 7.4. Finish
 - 7.4.1. Coating: Polyester powder-coated.
 - 7.4.2. Texture: Polyester powder-coated.
 - 7.4.3. Colour: TBC
- 8. Door leaf
 - 8.1. Thickness: 48 mm.
 - 8.2. Core: Door blades set at 45° and mounted at 50 mm deep angle frame, which is mounted on a box section sub-frame.
 - 8.3. Panel details: Security door blades manufactured from 1.5 mm sheets lock formed together, fitted with an anti-jemmy astragal.
 - 8.4. Material: 1.5 mm-thick corrosion resistant Zintec/ Aluzinc.
 - 8.5. Finish
 - 8.5.1. Coating: Polyester powder-coated.
 - 8.5.2. Texture: Polyester powder-coated.
 - 8.5.3. External colour:
 - 8.5.4. Internal colour: As External.
- 9. Accessories: None.
- 10. Operation: Manual.
- 11. Other requirements: Mid Bar to Gas/Elec Cupboard so each leaf can be locked independent of the other door (two separate door lock to gas cupboard and electric cupboard)

52 External Steel Doors / External Bar Store Door / Toilet Block Doors Carbon steel doorsets Main Building & Toilet Block

- 1. Description: Bar Store
- 2. Manufacturer: [HAG Ltd. - The Door Specialists](#)
 - 2.1. Contact details
 - 2.1.1. Address: 1 Oak Lane
Fishponds
Bristol
United Kingdom
BS5 7UY
 - 2.1.2. Telephone: [0800 072 3444](tel:0800 072 3444)
 - 2.1.3. Web: <https://www.hag.co.uk/>
 - 2.1.4. Email: info@hag.co.uk
 - 2.2. Product reference: [Fire Exit Steel Doors - Double - AD10 Armourdoor](#)
- 3. Configuration: Single leaf, single action.
- 4. Doorset size:
- 5. Performance
 - 5.1. Intruder resistance
 - 5.1.1. Minimum requirement:
- 6. Frame

- 6.1. Material: 1.6 mm Zintec/ Aluzinc steel.
- 6.2. Threshold:
- 6.3. Perimeter seals or inserts: Sub frame included to allow up to 30 mm tolerance for site installations.
- 6.4. Finish
 - 6.4.1. Coating: Polyester powder-coated.
 - 6.4.2. Texture:
 - 6.4.3. Colour:
- 6.5. Installation fasteners: Fitted with dog bolt for hinge as standard.
- 7. Door leaf
 - 7.1. Thickness: 48 mm.
 - 7.2. Core:
 - 7.3. Panel details: Fire Exit steel door AD10.
 - 7.4. Material: 1.2 mm-thick corrosion resistant Zintec/ Aluzinc steel.
 - 7.5. Glazing
 - 7.5.1. Type:
 - 7.5.2. Manifestation:
 - 7.6. Finish
 - 7.6.1. Coating:
 - 7.6.2. Texture:
 - 7.6.3. External colour:
 - 7.6.4. Internal colour: As External.
- 8. Hardware: Rim panic latch, mortice panic night latch and two-point panic bolt.
- 9. Accessories:
- 10. Operation: Manual.

62 Sliding folding Main Building Only

- 1. Description: sliding/ folding doors
- 2. Manufacturer: London Wall Design Ltd
 - 2.1. Product reference: Type 200
- 3. Performance: Rw 41dB
- 4. Operation: Manual
- 5. Arrangement: Bottom-rolling on floor track
- 6. Panels
 - 6.1. Construction: No. leafs TBC **Track finish:** Powder coated white to RAL 9010 - Endfold bi-parting
 - 6.2. Finish as delivered:
 - 6.3. Vision panels: Not required
- 7. Ironmongery: As supplied
- 8. Other requirements: **Edge Profiles:** Protective satin anodised aluminium / Panel Locking

70 Roller grilles (Serving Counter) Kitchen Serving & Bar Main Building Only

- 1. Manufacturer: [HAG Ltd. - The Door Specialists](#)
 - 1.1. Contact details

- 1.1.1. Address: 1 Oak Lane
Fishponds
Bristol
United Kingdom
BS5 7UY
- 1.1.2. Telephone: [0800 072 3444](tel:0800 072 3444)
- 1.1.3. Web: <https://www.hag.co.uk/>
- 1.1.4. Email: info@hag.co.uk
- 1.2. Product reference: [Roller Shutter Door Armourguard P1](#)
- 2. Opening sizes:
- 3. Format: Internal.
- 4. Arrangement: Vertical operation.
- 5. Shutter curtain.
 - 5.1. Lath material: Galvanized steel.
 - 5.2. Profile: Curved perforated.
 - 5.3. Finish and colour: Polyester powder-coated, colour.
- 6. Frame and guides
 - 6.1. Material: Aluminium
 - 6.2. Finish: Polyester powder-coated.
 - 6.3. Colour: Polyester powder-coated, colour: Black
 - 6.3.1. Frame accessories: Shutter box design.
- 7. Operation
 - 7.1. Mode: Electrical, single phase.
 - 7.2. Control: Security key switch (refer to DHP design)

70 Equipment Store Access panels Main Building Only

- 1. Manufacturer: [Trade Access Panels](#)
- 2. Contact details
 - 2.1. Address: Unit 4-5 Central Park
Progress Drive
Cannock
Staffordshire
WS11 0JF
 - 2.2. Telephone: [+44 \(0\)1922 500 145](tel:+44(0)1922500145)
 - 2.3. Web: https://www.tradeaccesspanels.co.uk/?utm_source=NBS&utm_medium=NBS&utm_campaign=NBS
 - 2.4. Email: sales@tradeaccesspanels.co.uk
- 3. Product reference: [Insulated Fire Rated Loft Hatch | Picture Frame](#)
- 4. Fire resistance: 60 minutes to BS 476-22.
- 5. Position: Ceiling mounted.
- 6. Size:
- 7. Frame: 25 mm.
- 8. Panel
 - 8.1. Material: Zintec steel.
 - 8.2. Integral finish: RAL 9010, 20% gloss.
- 9. Latch or lock type: Budget lock.
- 10. Thermal transmittance (U-Value): 0.35 W/m²K.

75 Fire-resisting/ smoke control doors/ doorsets

1. **Gaps between frames and supporting construction:** Filled as necessary in accordance with door/ doorset manufacturer's instructions.

80 Sealant joints

1. **Sealant**
 - 1.1. **Manufacturer:** Submit proposals
 - 1.1.1. **Product reference:** Submit proposals.
 - 1.2. **Colour:** White.
 - 1.3. **Application:** As section Z22 'Sealants' to prepared joints. Triangular fillets finished to a flat or slightly convex profile.

85 Fixing ironmongery generally

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

Ω End of Section

L30

Stairs/ ladders/ walkways/ handrails/ balustrades

To be read with preliminaries/ general conditions

40 Equipment Store Permanently-fixed vertical ladder systems Main Building Only

1. Manufacturer: [Surespan](#)
 - 1.1. Contact details
 - 1.1.1. Address: Surespan Ltd
Walsall Road
Aldridge
West Midlands
United Kingdom
WS9 0SW
 - 1.1.2. Telephone: [+44 \(0\)1922 711185](tel:+44(0)1922711185)
 - 1.1.3. Web: <https://surespancovers.com/>
 - 1.1.4. Email: sales@surespancovers.com
 - 1.2. Product reference: [SL - Fixed Vertical Ladder \(SLC\)](#)
2. Stiles: Size 8 structural tube (48.3 mm outer diameter).
3. Rungs: Safe Tread aluminium rungs at 250 mm centres.
4. Platforms
 - 4.1. Material: Aluminium.
5. Safety cage: Required.
6. Colour/ Finish:
7. Accessories:
8. Landings: Landing platforms at 6 m maximum.
9. Type: SLC.
10. Format: Standard ladder, 3 m maximum.
11. Construction:

41 Aluminium loft ladders Main Building Only

1. Manufacturer: [Quanex Access Solutions](#)
 - 1.1. Contact details
 - 1.1.1. Address: Innovation Drive
Wolverhampton
West Midlands
United Kingdom
WV9 5GA
 - 1.1.2. Telephone: [01284 701 696](tel:01284701696)
 - 1.1.3. Web: <https://www.quanex.com/>
 - 1.1.4. Email: QASUK@QUANEX.COM
 - 1.2. Product reference: [BL-ZBOX Retractable Ladder with Trap Door \(BL-ZBOX-4\)](#)
2. Standard: To BS EN 14975.
3. Floor-to-ceiling height (minimum): 3091–3390 mm.
4. Handrails:
5. Treads: 300 x 140 mm.

6. Loft trapdoor
 - 6.1. Minimum opening size (length x width): 1000 mm (minimum hatch length).
 - 6.2. Operating mechanism:
7. Fire rating:
8. Trap door and lining:
9. Operation:
10. Accessories:

80 Installation generally

1. Fasteners and methods of fixing: To Section Z20.
2. Structural members: Do not modify, cut, notch or make holes in structural members, except as indicated on drawings.
3. Temporary support: Do not use stairs, walkways or balustrades as temporary support or strutting for other work.
4. Applied features (finishes, inserts, nosings, etc.): Substrates to be even, dry, sound and free from contaminants. Make good substrate surfaces and prepare/ prime as applied feature manufacturer's recommendations before application.

90 Inspection

1. Timing: Two weeks prior to date when contractor expects work to be practically complete
2. Period of notice (minimum): Five working days

Ω End of Section

M10

Cement based levelling/ wearing screeds

To be read with preliminaries/ general conditions.

7 Proprietary quick drying levelling screeds Main Building & Toilet Block

1. Description: For Floor Screed (Ground & First Floor Plant Room)
2. Substrate: In situ concrete slab
3. Screed manufacturer: Tarmac
 - 3.1. Product reference: Tarmac Truscreed + Fibre (Ready Mixed)
4. Screed construction: Floating, as clause 290
 - 4.1. Reinforcement for crack control: As factory supplied
5. Thickness
 - 5.1. Nominal: 75mm
 - 5.2. Minimum: 65 mm
6. Mix
 - 6.1. Cement: As recommended by screed manufacturer
 - 6.2. Proportions: To manufacturer's recommendations.
7. In situ crushing resistance (ISCR) category: As clause 335
 - 7.1. Mass of test weight: 2 kg
8. Flatness/ Surface regularity class: SR1
9. Finish: Trowelled, as clause 540
 - 9.1. To receive: Varies, as drawings
10. Other requirements: Heated screed, as clause 428, Pipe ducts, as section P31

14 Self-smoothing levelling screed mixes Main Building Only - Equipment Stores (to fall)

1. Description: Equipment Stores
2. Substrate: In situ concrete slab
3. Screed manufacturer: Tarmac
 - 3.1. Contact details
 - 3.1.1. Address: Portland House
Bickenhill Lane
Solihull
Birmingham
West Midlands
B37 7BQ
 - 3.1.2. Telephone: 0121 787 5001
 - 3.1.3. Web: <https://tarmac.com/contact/>
 - 3.1.4. Email: enquiries@tarmac.com
 - 3.2. Product reference: Topflow Screed C
4. Appearance: Dark Grey fluid mortar.
5. Density: 2200 kg/m³, 2000 kg/m³.
6. Compressive strength - 28 days: 25 N/mm².
7. Flexural strength: 4 N/mm².
8. Thermal Conductivity: 1.7 W/m·K.

9. **Screed thickness:** Laid to Fall
10. **Drying time:** 14–21 days, 48 hours.
11. **Coverage:** 120 m²/hour.

21 Suitability of substrates

1. **General**
 - 1.1. Suitable for specified levels and flatness/ regularity of finished surfaces. Consider permissible minimum and maximum thicknesses of screeds.
 - 1.2. Sound and free from significant cracks and gaps.
2. **Concrete strength:** In accordance with BS 8204-1, Table 2.
3. **Cleanliness:** Remove plaster, debris and dirt.
4. **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.

22 Proprietary levelling/wearing screeds

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

37 Unbonded construction

1. **Separation:** Lay screed over a suitable sheet dpm or a separating layer.
 - 1.1. **Type:** Polyethylene sheet, minimum 125 micrometres thick (500 gauge)
2. **Installation of separating layer:** Lay on clean substrate. Turn up for full depth of screed at abutments with walls, columns, etc. Lap 100 mm at joints.

45 Aggregates and cements

1. **Sand:** To BS EN 13139.
 - 1.1. **Grading limits:** In accordance with BS 8204-1, Table B.1.
2. **Coarse aggregates**
 - 2.1. **Standard:** To BS EN 12620.
 - 2.2. **Lightweight aggregates:** In accordance with BS 8204-1, Annex A.
 - 2.3. **Designation** 4/10.
3. **Cement**
 - 3.1. **Cement types:** In accordance with BS 8204-1, clause 5.1.3.

50 Mixing

1. **Water content:** Minimum necessary to achieve full compaction, low enough to prevent excessive water being brought to surface during compaction..
2. **Mixing:** Mix materials thoroughly to uniform consistency in a suitable forced action mechanical mixer. Do not use a free fall drum type mixer.
3. **Consistency:** Use while sufficiently plastic for full compaction.
4. **Ready-mixed retarded screed mortar:** Use within working time and site temperatures recommended by manufacturer. Do not retemper.

52 Compaction

1. **General:** Compact thoroughly over entire area.
2. **Screeds over 50 mm thick:** Lay in two layers of equal thickness. Roughen surface of compacted lower layer then immediately lay upper layer.

55 Joints in levelling screeds

1. **Laying screeds:** Lay continuously using 'wet screeds' between strips or bays. Minimize defined joints.
2. **Daywork joints:** Form with vertical edge.

60 Joints in polymer modified wearing screeds

1. **Bay sizes (maximum):** 4.5 m
2. **Location of bay joints:** Over construction/ movement joints in base slab.

61 Conduits under floating screeds

1. **Haunching:** Before laying insulation for floating screeds, haunch up in 1:4 cement:sand on both sides of conduits.

62 Conduits cast into or under screeds

1. **Reinforcement:** Overlay with reinforcement selected from:
 - 1.1. 500 mm wide strip of steel fabric to BS 4483, reference D49, or
 - 1.2. Welded mesh manufactured in rolls from mild steel wire minimum 1.5 mm diameter to BS 1052, mesh size 50 x 50 mm.
2. **Placing reinforcement:** Mid depth between top of conduit and the screed surface.
 - 2.1. Width of reinforcement (minimum): 300 mm.
3. **Screed cover over conduit (minimum):** 25 mm

63 Pipe ducts/ trunking

1. **Preformed access ducts:** Before laying screed, fix securely to substrates and level accurately in relation to finished floor surface.

65 Cast-in screed movement joints

1. **Manufacturer:** [SMET Building Products Ltd](#)
 - 1.1. **Contact details**
 - 1.1.1. **Address:** 93A Belfast Road
Newry
Co Down
United Kingdom
BT34 1QH
 - 1.1.2. **Telephone:** +44 (0)28 3026 6833
 - 1.1.3. **Web:** www.smetbuildingproducts.com
 - 1.1.4. **Email:** info@smetbuildingproducts.com
 - 1.2. **Product reference:** [Screed Expansion Joint](#)
2. **Insert**
 - 2.1. **Material:** Polyethylene (PE).
3. **Height:** 80 mm.
4. **Length:** 200 mm.
5. **Thickness:** 10 mm.
6. **Base:** 40 mm.

70 Smooth floated finish

1. **Finish:** Even texture with no ridges or steps.

75 Trowelled finish to levelling screeds

1. **Floating:** To an even texture with no ridges or steps.
2. **Trowelling:** To a uniform smooth surface, free from trowel marks and other blemishes, and suitable to receive specified flooring material.

80 Trowelled finish to wearing screeds

1. **Floating:** To an even texture with no ridges or steps.
2. **Trowelling:** Successively trowel at intervals, applying sufficient pressure to close surface and give a uniform, smooth finish free from trowel marks and other blemishes.

85 Finishing generally

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

87 Level of screed surfaces

1. **Permissible deviation:** (allowing for thickness of coverings) ± 5 mm from datum.

88 Heated screeds

1. **Substrate slab:** Irregularities not permitted.
2. **Screed bays, movement joints and other joints:** Coordinate with heating circuits.
3. **Heating elements:** Secure properly. Prevent displacement.
4. **Screed laying:** Compact thoroughly around heating elements. Do not damage them.

90 Curing

1. **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.
2. **Curing period (minimum):** As soon as screed has set sufficiently, closely cover with polyethylene sheeting for period recommended by screed manufacturer.
3. **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.

95 Adverse weather

1. **Screeds surface temperature:** Maintain above 5°C for a minimum of four days after laying.
2. **Hot weather:** Prevent premature setting or drying out.

Ω End of Section

M20

Plastered/ rendered/ roughcast coatings

Clauses - Not Used

To be read with preliminaries/ general conditions.

25 Gypsum plaster on cement gauged undercoats Main Building Only - For Plastered Walls

1. Description: Cafe / Kitchen / Bar / Reception and Entrance Lobby, etc
2. Substrate: Precast concrete
 - 2.1. Preparation: Bonding agent recommended by plaster manufacturer (Thisles Bond-it)
3. Undercoats
 - 3.1. Mix: Thistle Bonding Coat
 - 3.2. Thickness (excluding dubbing out and keys): As manufacturer's recommendations
4. Final coat: Gypsum plaster to BS EN 13279-1.
 - 4.1. Manufacturer: British Gypsum Limited
 - 4.1.1. Product reference: Thistle Hardwall
 - 4.2. Thickness: As manufacturer's recommendations
 - 4.3. Finish: smooth
5. Accessories: Beads and stops

40 Multicoat proprietary plaster Main Building Only

1. Description: Internal Walls (Masonry)
2. Substrate: Concrete blockwork, as section F10
 - 2.1. Preparation: Bonding agent recommended by plaster manufacturer
3. Manufacturer: British Gypsum
4. Undercoats
 - 4.1. Product reference: Gyproc Hard wall
 - 4.2. Thickness (excluding dubbing out): As manufacturer's recommendations
5. Final coat
 - 5.1. Product reference: Gyproc Multi Thistle
 - 5.2. Thickness: As manufacturer's recommendations
 - 5.3. Finish: Smooth
6. Accessories: Beads and stops, etc

50 Gypsum plaster skim coat on plasterboard Main Building & Toilet Block

1. Plasterboard: 12.5 mm generally
 - 1.1. Preparation: Bonding agent recommended by plaster manufacturer
2. Plaster: Board finish/ finish plaster to BS EN 13279-1.
 - 2.1. Manufacturer: British Gypsum Limited
 - 2.1.1. Product reference: Thistle Hardwall
 - 2.2. Thickness: 2-5mm
 - 2.3. Finish: Smooth.
3. Accessories: Beads and stops

65 Mixing

1. Render mortars (site-made)
 - 1.1. **Batching:** By volume using gauge boxes or buckets.
 - 1.2. **Mix proportions:** Based on damp sand. Adjust for dry sand.
 - 1.3. **Lime:sand:** Mix thoroughly. Allow to stand, without drying out, for at least 16 hours before using.
2. **Mixes:** Of uniform consistence and free from lumps.
3. **Contamination:** Prevent intermixing with other materials.

67 Cold weather

1. **General:** Do not use frozen materials or apply coatings on frozen or frost bound substrates.
2. **Internal work:** Take precautions to prevent damage to internal coatings when air temperature is below 3°C.
3. **External work:** Avoid when air temperature is at or below 5°C and falling or below 3°C and rising.

71 Suitability of substrates

1. **General:** Suitable to receive coatings. Sound, free from contamination and loose areas.
2. **Cutting, chasing, making good, fixing of conduits and services outlets and the like:** Completed.
3. **Tolerances:** Permitting specified flatness/ regularity of finished coatings.
4. **Cleanliness:** Free from dirt, dust, efflorescence and mould, and other contaminants incompatible with coatings.

81 Beads/ stops for internal use

1. **Standard:** In accordance with [BS EN 13914-2](#).
2. **Material:** Stainless steel to [BS EN 13658-1](#)

86 Crack control at junctions between dissimilar solid substrates

1. **Locations:** Where defined movement joints are not required. Where dissimilar solid substrate materials are in same plane and rigidly bonded or tied together.
2. **Crack control materials**
 - 2.1. **Isolating layer:** Building paper to [BS 1521](#).
 - 2.2. **Metal lathing:** Internally: Galvanized steel plain expanded metal with spacers
3. **Installation:** Fix metal lathing over isolating layer. Stagger fixings along both edges of lathing.
4. **Width of installation over single junctions**
 - 4.1. **Isolating layer:** 150 mm.
 - 4.2. **Lathing:** 300 mm.
5. **Width of installation across face of dissimilar substrate material (column, beam, etc. with face width not greater than 450 mm)**
 - 5.1. **Isolating layer:** 25 mm (minimum) beyond junctions with adjacent substrate.
 - 5.2. **Lathing:** 100 mm (minimum) beyond edges of isolating layer.

87 Application of coatings

1. **General:** Apply coatings firmly and achieve good adhesion.
2. **Appearance of finished surfaces:** Even and consistent. Free from rippling, hollows, ridges, cracks and crazing.
 - 2.1. **Accuracy:** Finish to a true plane, to correct line and level, with angles and corners to a right angle unless specified otherwise, and with walls and reveals plumb and square.

3. **Drying out:** Prevent excessively rapid or localized drying out.
4. **Keying undercoats:** Cross scratch plaster coatings and comb render coatings. Do not penetrate undercoat.

94 Flatness/ surface regularity

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

Ω End of Section

M40

Stone/ concrete/ quarry/ ceramic tiling/ mosaic

To be read with preliminaries/ general conditions.

3 Tiling Main Building & Toilet Block- Floor Tiling

1. Description: Floor Tiling
2. Tiles:
 - 2.1. Manufacturer/ supplier: Solus Ceramics Ltd
Unit 1 Cole River Park
285 Warwick Road
Birmingham
West Midlands
B11 2QX

sales@solusceramics.com
+44 (0)121 753 0777
 - 2.1.1. Product reference: Uptown (Grip R11 (A+B+C)).
 - 2.2. Colour: Ledbury (3PAB104)
 - 2.3. Finish: Natural
 - 2.3.1. Ceramic tiles: Matt
 - 2.4. Size: 600 x 600 mm
 - 2.5. Thickness: 9.5mm
 - 2.6. Slip potential
 - 2.6.1. Slip resistance value (SRV) (minimum)/ pendulum test value (PTV) (minimum) to BS EN 16165: to BS7976-1, -2, -3 or BS EN 14231 (natural stone only): Grip R11 (A+B+C):.
 - 2.6.2. Surface roughness (Rz) (minimum) in accordance with BS 1134: Manufacturer's standard
 - 2.6.3. Ramp test class: R11 (A+B).
3. Background/ base: Screed floor
 - 3.1. Preparation: As clause 15 & clause 60
4. Intermediate substrate: Not required
5. Bedding
 - 5.1. Floors: Adhesive bed – buttering method, as [clause 60](#)
 - 5.2. Reinforcement: Not applicable
 - 5.3. Adhesive: Kerakoll Bio Gel Revolution
6. Joint width: 3mm as spacer lugs
7. Grout: Kerakoll Fugabella Colour TBA
 - 7.1. Type/ classification: CG2WA
 - 7.2. Admixture: None
8. Movement joints: as manufacturer's recommendations
9. Accessories: Edging strip at thresholds, and at the change of floor finishes

5 Ceramic tiles Main Building - wet (shower Areas) / Splash Backs

1. Description: Wet Areas
2. Tiles:

- 2.1. Manufacturer/ supplier: [Johnson Tiles](#)
 - 2.1.1. Contact details
 - 2.1.1.1. Address: Harewood Street
Tunstall
Stoke-on-Trent
Staffordshire
ST6 5JZ
 - 2.1.1.2. Telephone: [+44 \(0\)1782 575575](tel:+44(0)1782575575)
 - 2.1.1.3. Web: <https://www.johnson-tiles.com>
 - 2.1.1.4. Email: sales@johnson-tiles.com
 - 2.1.2. Product reference: Chroma Wall Tiles
- 2.2. Colour: TBC
- 2.3. Finish: Smooth
 - 2.3.1. Ceramic tiles: Glazed
- 2.4. Size: Modular 300 x 100 mm
- 2.5. Thickness: 8 mm
- 3. Background/ base: Cement:sand rendering
 - 3.1. Preparation: SBR bonding agent to existing wall tiles Stippling,
- 4. Intermediate substrate: As clause 27
- 5. Bedding
 - 5.1. Walls: Adhesive bed – notched trowel and buttering method, as [clause 55](#)
 - 5.2. Adhesive: Contractor's choice
- 6. Joint width: As spacer lugs
- 7. Grout:
 - 7.1. Type/ classification: CG2A
 - 7.2. Admixture: None
- 8. Movement joints: At internal corners of room
- 9. Accessories: Vertical Straight Aluminium Tile trim (thickness to suit tile + backing board)

15 New backgrounds/ bases

- 1. Background drying times (minimum)
 - 1.1. Brick/block walls: Six weeks.
 - 1.2. Rendering: Two weeks.
 - 1.3. Gypsum plaster: Four weeks.
- 2. Base drying times (minimum)
 - 2.1. Cement:sand screeds: Three weeks.

27 Fibre-reinforced cement boards

- 1. Type:
 - 1.1. Manufacturer: [James Hardie Building Products Ltd](#)
 - 1.1.1. Contact details
 - 1.1.1.1. Address: 7 The Priory
Old London Road
Canwell
Sutton Coldfield
B75 5SH
 - 1.1.1.2. Telephone: [+44\(0\)1213113480](tel:+44(0)1213113480)

1.1.1.3. Web: <https://www.jameshardie.co.uk>

1.1.1.4. Email: info@jameshardie.co.uk

1.1.2. Product reference: Hardie® Backer Tile Backerboard (Hardie® Backer 6 mm Tile Backerboard)

2. Fixing system: As manufacturer's recommendations
 - 2.1. Application: As recommended by manufacturer
3. Joints: Close butt.
 - 3.1. Treatment: Seal with waterproof reinforcing tape bedded and covered in adhesive, feather edges
4. Penetrations: Seal.
5. Accessories: None

30 Fixing generally

1. Colour/ shade: Avoid unintended variations within tiles for use in each area/ room.
 - 1.1. Variegated tiles: Mix thoroughly.
2. Adhesive: Compatible with background/ base.
3. Cut tiles: Neat and accurate.
4. Fixing: Provide adhesion over entire background/ base and tile backs.
5. Final appearance: Before bedding material sets, make adjustments necessary to give true, regular appearance to tiles and joints.
6. Deviation of surface: Measure from underside of a 2 m straightedge with 3 mm thick feet placed anywhere on surface. The straightedge should not be obstructed by the tiles/ mosaics and no gap should be greater than 6 mm, i.e. a tolerance of +/- 3 mm
7. Surplus bedding material: Clean from joints and face of tiles/ mosaics.

35 Setting out

1. Joints: True to line, continuous and without steps.
 - 1.1. Joints on walls: Horizontal, vertical and aligned round corners.
 - 1.2. Joints in floors: Parallel to main axis of space or specified features.
2. Cut tiles: Minimize number, maximize size and locate unobtrusively.
3. Joints in adjoining floors and walls: Align.
4. Joints in adjoining floors and skirtings: Align.
5. Movement joints: Where locations are not indicated, submit proposals.

40 Tile skirtings

1. Bedding: Solid to wall on 1:4 cement:sand mortar.

55 Adhesive bed – notched trowel and buttering method to walls

1. Application: By floated coat of adhesive to dry background. Comb surface.
2. Tiling: Apply thin even coat of adhesive to backs of dry tiles. Fill any profiles. Press tiles firmly onto float coat.
3. Finished adhesive thickness: 3 mm or within the range allowed by the adhesive manufacturer.

60 Adhesive bed – notched trowel and buttering method to floors

1. Application: Floated coat of adhesive to dry base and comb surface.
2. Tiling: Apply coat of adhesive to backs of dry tiles. Fill any profiles. Press tiles firmly onto float coat.

3. Finished adhesive thickness: Within range allowed by manufacturer.

70 Grouting

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

80 Strip movement joints

1. Description:
2. Manufacturer: [Construction Specialties \(UK\) Ltd](#)
 - 2.1. Contact details
 - 2.1.1. Address: 1010 Westcott Venture Park
Westcott
Aylesbury
Buckinghamshire
HP18 0XB
 - 2.1.2. Telephone: [+44 \(0\)1296 652800](tel:+441296652800)
 - 2.1.3. Web: <https://www.c-sgroup.co.uk>
 - 2.1.4. Email: uksales@c-sgroup.com
 - 2.2. Product reference: Submit proposals
3. Fixing to base:
4. Joints: Extend through tiles and bedding to base.

Ω End of Section

M50

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

To be read with preliminaries/ general conditions.

5 Entrance Matting Main Building Only - External

1. Description: Changing Room (Rear) Entrances
2. Manufacturer: [Forbo Flooring Systems](#)
 - 2.1. Contact details
 - 2.1.1. Address: PO Box 1
High Holborn Road
Ripley
Derbyshire
DE5 3NT
 - 2.1.2. Telephone: +44 (0)800 093 5258
 - 2.1.3. Web: <https://www.forbo-flooring.co.uk>
 - 2.1.4. Email: info.flooring.uk@forbo.com
 - 2.2. Product reference: Nuway Connect External
3. Standard: To [BS EN 14041](#)
4. Base: Mat well
5. Method of laying: Fully adhere with release adhesive as recommended by manufacturer.
6. Accessories: Matwell

6 Entrance Matting Main Building Only - External

1. Description: Main Front Entrance / Cafe (Rear) Entrances
2. Manufacturer: [Forbo Flooring Systems](#)
 - 2.1. Contact details
 - 2.1.1. Address: PO Box 1
High Holborn Road
Ripley
Derbyshire
DE5 3NT
 - 2.1.2. Telephone: +44 (0)800 093 5258
 - 2.1.3. Web: <https://www.forbo-flooring.co.uk>
 - 2.1.4. Email: info.flooring.uk@forbo.com
 - 2.2. Product reference: Nuway Tuff Guard
3. Standard: To [BS EN 14041](#)
4. Base: Mat well
5. Method of laying: Fully adhere with release adhesive as recommended by manufacturer.
6. Accessories: Matwell

7 Entrance mats Main Building Only - Internal

1. Description: Front Entrance and Rear Entrances
2. Manufacturer: [Forbo Flooring Systems](#)
 - 2.1. Contact details
 - 2.1.1. Address: PO Box 1
High Holborn Road

Ripley
Derbyshire
DE5 3NT

- 2.1.2. Telephone: +44 (0)800 093 5258
- 2.1.3. Web: <https://www.forbo-flooring.co.uk>
- 2.1.4. Email: info.flooring.uk@forbo.com
- 2.2. Product reference: Coral Duo & Logo
- 3. Standard: To [BS EN 14041](#)
- 4. Base: Mat well
- 5. Method of laying: Fully adhere with release adhesive as recommended by manufacturer.
- 6. Accessories: Matwells / Logos " Away Team" & "Home Team"

15 Carpet Tiling Main Building Only - Pile Carpet Tiles

- 1. Description: To Office/Reception
- 2. Manufacturer: [Forbo Flooring Systems](#)
 - 2.1. Contact details
 - 2.1.1. Address: PO Box 1
High Holborn Road
Ripley
Derbyshire
DE5 3NT
 - 2.1.2. Telephone: +44 (0)800 093 5258
 - 2.1.3. Web: <https://www.forbo-flooring.co.uk>
 - 2.1.4. Email: info.flooring.uk@forbo.com
 - 2.2. Product reference: Cloudscape
- 3. Standard: To [BS EN 14041](#)
- 4. Base: screed floor
- 5. Method of laying: Fully adhere all tiles with release adhesive recommended by tile manufacturer.
- 6. Accessories: Edging strip at thresholds, as [clause 70](#) Skirtings, as [clause 80](#)

20 Particle-based enhanced slip-resistant polyvinyl chloride (PVC) sheets Main Building Only - Kitchen / Bar / Bar Store / WCs / Baby Change / First Aid

- 1. Manufacturer: Forbo Flooring Systems
 - 1.1. Contact details
 - 1.1.1. Address: Works Road
Letchworth Garden City
Hertfordshire
SG6 1NW
 - 1.1.2. Telephone: +44 (0)1462 480480
 - 1.1.3. Web: <https://www.altro.com/uk>
 - 1.1.4. Email: enquiries@altro.com
 - 1.2. Product reference: Surestep Original
- 2. Use class: To BS EN ISO 10874, Class 34/ 43.
- 3. Width: 2000 mm.
- 4. Thickness: 2 mm.
- 5. Colour and pattern: TBC
- 6. Flooring: Homogenous PVC to EN 13845.

7. Standard: To [BS EN 14041](#)
8. Base: screed floor
9. Accessories: PVC skirtings, as [clause 80](#)

25 Particle-based enhanced slip-resistant polyvinyl chloride (PVC) sheets Main Building Only - Team Changing Rooms / Official Changing Rooms / Corridor Area

1. Manufacturer: [Altro](#)
 - 1.1. Contact details
 - 1.1.1. Address: Works Road
Letchworth Garden City
Hertfordshire
SG6 1NW
 - 1.1.2. Telephone: [+44 \(0\)1462 480480](tel:+44(0)1462480480)
 - 1.1.3. Web: <https://www.altro.com/uk>
 - 1.1.4. Email: enquiries@altro.com
 - 1.2. Product reference: [Altro Atlas™ 40](#)
2. Use class: To BS EN ISO 10874, Class 34/ 43.
3. Width: 2000 mm.
4. Thickness: 4 mm.
5. Colour and pattern: TBC
6. Flooring: Homogenous PVC to EN 13845.
7. Accessories:
8. Standard: To [BS EN 14041](#)
9. Base: screed floor
10. Accessories: PVC skirtings, as [clause 80](#)

27 Samples

1. Requirement: Submit samples representative of each floor type no later than two weeks following request
 - 1.1. Size (minimum): 500x500 mm

30 Layout

1. General: Layout to be planned carefully to avoid wastage and unnecessary seams. All material laid in a location to come from the same batch
2. Pattern: As per manufacturer's instructions.
3. Transition joints: All joints in doorways to be located underneath the door

32 Extra material

1. Requirement: Provide extra material for each type of floor covering installed
 - 1.1. Amount: 10% extra carpet tile
 - 1.2. Timing: Hand over on completion

34 Conditioning

1. Prior to laying: Condition materials in accordance with [BS 5325](#) and condition materials in accordance with manufacturer's instructions
2. Conditioning time and temperature: At 18°C to 27°C for at least 24 hours

40 New wet-laid bases

1. **Artificial base drying aids:** Not used for at least four days prior to moisture content testing
2. **Base moisture content test:** Carry out in accordance with [BS 5325](#), annex B & Carry out in accordance with [BS 8203](#), annex B
3. **Commencement of laying coverings:** Not until all readings show 75% relative humidity or less

60 Setting out tiles

1. **Method:** Set out from centre of area/ room, so that wherever possible tiles along opposite edges are of equal size and edge tiles are more than 50% of full tile width.
 - 1.1. **Requirement:** Setting out to be approved by contract administrator prior to installation.

65 Laying coverings

1. **Preparation:** Subfloor to be sound and free from surface irregularities or protruding fasteners. Clean area to be covered with flooring, removing all debris and dust.
2. **Primer:** Type and application as recommended by adhesive manufacturer.
3. **Adhesive:** As per manufacturer's recommendations.
 - 3.1. **Application:** As per manufacturer's instructions.
4. **Environment:** Before, during and after laying, provide adequate ventilation and maintain temperature and humidity approximately at levels which will prevail after building is occupied.
5. **Laying of floor covering :** Lay tiles out from the starting point. Ensure that all tiles are at right angles to each other. Connect tiles and tap joints together with a rubber mallet.
6. **Finished coverings:** Accurately fitted, tightly jointed, securely bonded, smooth and free from air bubbles, rippling, adhesive marks, stains, trowel ridges and high spots.
 - 6.1. **Colour consistency:** Colour of individual pieces of floor covering to match. Finished floor to be free from banding or patchiness.
7. **Traffic-free period:** As per manufacturer's instructions

70 Floor threshold strips

1. **Manufacturer:** [Quantum Flooring Accessories](#)
 - 1.1. **Contact details**
 - 1.1.1. **Address:** Salmon Fields
Royton
Oldham
Greater Manchester
OL2 6JG
 - 1.1.2. **Telephone:** +44 (0)161 627 4222
 - 1.1.3. **Web:** <https://quantumprofilesystems.com/en/brands/quantum/>
 - 1.1.4. **Email:** info@quantumflooring.co.uk
 - 1.2. **Product reference:** To suit floor finish abutment
2. **Properties**
 - 2.1. **Material:** Aluminium
 - 2.2. **Height difference:** To cover transitions between floor coverings - 6 - 17mm
3. **Fixing:** Secure after laying of the floor covering, with the edge of the covering gripped. Use matching fasteners where exposed to view.

80 Cove Skirtings

1. **Manufacturer:** Forbo Quantum

- 1.1. **Product reference:** Floormitre: Cove former: CCFM1 - Internal. CCFM2 - External. EFA75 - For external verticals. QCF35 - For floor and internal verticals. Diminishing strip: QT100 - 1 x 15 mm. QT200 - 2 x 25 mm
2. **Fixing:** Apply adhesive to skirting and press firmly against the wall in the chosen position. Secure with top edge straight and parallel with floor. Allow adhesive to dry fully.
 - 2.1. **Corners:** Mitre joints.

82 Finishing

1. **Description:** installed on ground floor
2. **Cleaning:** Vacuum carpet to remove any loose fibre / Wash vinyl & tile floors with water containing neutral (pH 6–9) detergent. If necessary, lightly scrub heavily soiled areas.
3. **Treatment:** tile / Vinyl area polish as recommended by covering manufacturer.
4. **Temporary protection:** Cover all trafficked areas with a suitable protection

85 Leftover material

1. **Spare covering material:** Retain suitable material for patching. On completion, submit pieces for selection. Hand over selected pieces to employer.
2. **Waste disposal:** Safely, in accordance with material safety data sheets.

Ω End of Section

M60

Painting/ clear finishing

To be read with preliminaries/ general conditions.

10 Water-based finishing coats Main Building & Toilet Block - Plaster finished Walls / Ceilings, Soffits, etc

1. Manufacturer: [Dulux Trade, brand of AkzoNobel](#)
 - 1.1. Contact details
 - 1.1.1. Address: AkzoNobel Decorative Paints
Wexham Road
Slough
Berkshire
SL2 5DS
 - 1.1.2. Telephone: [+44 \(0\)333 222 7070](tel:+44(0)3332227070)
 - 1.1.3. Web: www.duluxtradepaintexpert.co.uk
 - 1.1.4. Email: project.support@akzonobel.com
 - 1.2. Product reference: [Dulux Trade Scuffshield Matt](#)
2. Composition: Acrylic copolymer.
3. Sheen: Matt.
4. Colour: TBC
5. Execution: Applying coating.
6. Capacity: 5 L.
7. Form: Liquid.
8. Surfaces: Skim coat plaster
 - 8.1. Preparation: Ensure surfaces are clean and dry see clauses 400,
9. Initial coats: As recommended by manufacturer
10. Number of coats: one.
11. Undercoats: As recommended by manufacturer
 - 11.1. Number of coats: one
12. Finishing coats: Matt vinyl
 - 12.1. Number of coats: two

11 Water-based finishing coats Main Building & Toilet Block - Paint Grade Blockwork Paint Finish

1. Manufacturer: [Dulux Trade, brand of AkzoNobel](#)
 - 1.1. Contact details
 - 1.1.1. Address: AkzoNobel Decorative Paints
Wexham Road
Slough
Berkshire
United Kingdom
SL2 5DS
 - 1.1.2. Telephone: [+44 \(0\)333 222 7070](tel:+44(0)3332227070)
 - 1.1.3. Web: <https://www.duluxtradepaintexpert.co.uk/en>
 - 1.1.4. Email: project.support@akzonobel.com
 - 1.2. Product reference: [Dulux Trade Diamond Matt](#)

2. **Composition:** Lightfast pigments (pigment), acrylic copolymer emulsion (binder), water (solvent).
3. **Sheen:** Matt.
4. **Colour:**
5. **Form:** Liquid.
6. **Pack size:**
7. **Certification:** BREEAM, LEED, IAC Gold, EPD, Fire Testing report.
8. **Coverage:** 16 m²/L.
9. **Drying time:** Touch dry: dependent on temperature and humidity. Recoat: 4–6 hours.
10. **Thinning:** Sealing new or bare surfaces: add up to one part clean water to ten parts paint. Normal use (not to be exceeded): thinning is not usually required. Airless spray application: thinning is not usually required but can be thinned by adding up to one part clean water to ten parts paint.
11. **Volume solids:** White: 49% (nominal). Other colours will vary.
12. **Chemical resistance:** Not suitable.
13. **Water resistance:** Resistant to the levels of atmospheric humidity present in normal interior environments and will withstand repeated washing.
14. **Application method:** Manufacturer's standard (restricted).
15. **VOC:** Ready mixed: maximum 1 g/L VOC. Tinted colour: maximum 1 g/L VOC.
16. **VOC emissions:** Considered to have "Trace" elements for emissions.
17. **Storage:** Do not use or store in extremes of temperature and protect from frost.
18. **Surface preparation:** Ensure surfaces to be painted are sound, clean and dry.

12 Gloss Paints Main Building & Toilet Block - For Softwood

1. **Description:**
2. **Manufacturer:** [Dulux Trade, brand of AkzoNobel](#)
 - 2.1. **Contact details**
 - 2.1.1. **Address:** AkzoNobel Decorative Paints
Wexham Road
Slough
Berkshire
SL2 5DS
 - 2.1.2. **Telephone:** [+44 \(0\)333 222 7070](tel:+44(0)3332227070)
 - 2.1.3. **Web:** www.duluxtradepaintexpert.co.uk
 - 2.1.4. **Email:** project.support@akzonobel.com
 - 2.2. **Product reference:** Dulux Trade New Work Gloss. (System code 1808)
3. **Surfaces:** Preprimed and sealed or Uncoated
 - 3.1. **Preparation:** Ensure surfaces are clean and dry
4. **Initial coats:** As recommended by manufacturer
 - 4.1. **Number of coats:** one
5. **Undercoats:** As recommended by manufacturer
 - 5.1. **Number of coats:** one
6. **Finishing coats:** Full gloss
 - 6.1. **Number of coats:** Two

14 Gloss Paints Main Building & Toilet Block - MDF

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

2.1. Contact details

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

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

2.1.3. Web: www.duluxtradepaintexpert.co.uk

2.1.4. Email: project.support@akzonobel.com

2.2. Product reference: Polyurethane white paint

3. Surfaces: Preprimed and sealed or Uncoated

3.1. Preparation: Ensure surfaces are clean and dry

4. Initial coats: As recommended by manufacturer

4.1. Number of coats: one

5. Undercoats: As recommended by manufacturer

5.1. Number of coats: one

6. Finishing coats: Full gloss

6.1. Number of coats: Two

18 Anti-slip floor coatings Main Building Only - To Plant Room & walkway / External Equipment Stores / Loft Walkway

1. Manufacturer: [Armstead Trade](#)

1.1. Contact details

1.1.1. Address: Wexham Road
Slough
Berkshire
SL2 5DS

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

1.1.3. Web: www.duluxtrade.co.uk

1.1.4. Email: project.support@akzonobel.com

1.2. Product reference: [Armstead Trade Anti-slip Floor Paint](#)

2. Composition

2.1. Pigment: Manufacturer's standard.

2.2. Binder: Alkyd.

2.3. Solvent: White spirit.

3. Coverage: Up to 8 m²/L.

4. Slip resistance value (SRV) / Pendulum test value (PVT) (minimum)

4.1. Standard: 70.

4.2. PTV (minimum)

4.2.1. Wet: 58.

5. VOC content: Maximum 450 g/L.

6. Chemical resistance class: Resistant to mild chemical fume attack.

7. System code:

8. Capacity: 5 L.

9. Drying time: Touch dry in 1 hour.

19 Anti-vandal coatings Main Building Only

1. **Description:** To Zinc Cladding
2. **Manufacturer:**
 - 2.1. **Product reference:** Hydrograff HP Antigraffiti Coating for Metal and Masonry RAL
3. **Surfaces:**
 - 3.1. **Preparation:** Degrease and provide key Ensure surfaces are clean and dry
4. **Initial coats:** As recommended by manufacturer
5. **Application:** Airless spray

22 Handling and storage

1. **Coating materials:** Deliver in sealed containers, labelled clearly with brand name, type of material and manufacturer's batch number.
2. **Materials from more than one batch:** Store separately. Allocate to distinct parts or areas of the work.

28 Protection

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

30 Preparation generally

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

36 Ironmongery

1. **Removal:** Before commencing work remove ironmongery from surfaces to be coated.
2. **Hinges:** Remove

3. Replacement: Refurbish as necessary; refit when coating is dry.

37 Wood preparation

1. General: Provide smooth, even finish with lightly rounded arrises.
2. Degraded or weathered surface wood: Take back surface to provide suitable substrate.
3. Degraded substrate wood: Repair with sound material of same species.
4. Heads of fasteners: Countersink sufficient to hold stoppers/ fillers.
5. Resinous areas and knots: Apply two coats of knotting.
6. Defective primer: Take back to bare wood and reprime.

39 Steel preparation

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

43 Plaster preparation

1. Nibs, trowel marks and plaster splashes: Scrape off.
2. Overtrowelled 'polished' areas: Provide suitable key.
3. Depressions around fixings: Fill with stopper/ filler.

52 Sealing of internal movement joints

1. General: To junctions of walls and ceilings with architraves, skirtings and other trims.
2. Sealant: Water-borne acrylic.
 - 2.1. Manufacturer: Submit proposals
 - 2.1.1. Product reference: Submit proposals
 - 2.2. Preparation and application: As section Z22.

61 Coating generally

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

Ω End of Section

M61

Intumescent coatings for fire protection of steelwork

Clauses

10 Intumescent protective coatings Main Building Only

1. Description: INTERNALLY
2. Use/ location: Steelwork
3. Fire performance: As clause 202
4. Preparation and priming: By steelwork contractor, as section G10.
5. Intumescent coating system
 - 5.1. Manufacturer: [Nullifire – a brand of CPG UK Ltd](#)
 - 5.1.1. Contact details
 - 5.1.1.1. Address: Tremco CPG UK Limited
Coupland Road
Hindley Green
Wigan
Greater Manchester
WN2 4HT
 - 5.1.1.2. Telephone: [+44 \(0\) 1942 251 400](#)
 - 5.1.1.3. Web: [www.nullifire.com](#)
 - 5.1.1.4. Email: [hello@cpg-europe.com](#)
 - 5.1.2. Product reference: [SC802](#)
 - 5.2. Composition: A very low VOC, water-based formulation.
 - 5.3. Colour: White.
 - 5.4. VOC content: <16 g/L.

Ω End of Section

N10

General fixtures/ furnishings/ equipment

Clauses - Not Used

To be read with preliminaries/ general conditions.

10 Lockers Main Building Only - Changing Rooms (Generally)

1. Manufacturer: [Bushboard Washroom Systems Ltd](#)
 - 1.1. Contact details
 - 1.1.1. Address: Unit 1400
1st Floor Montagu Court
Kettering Venture Park
Kettering
Northamptonshire
NN15 6XR
 - 1.1.2. Telephone: [+44 \(0\)1536 533620](tel:+44(0)1536533620)
 - 1.1.3. Web: www.bushboard-washrooms.co.uk
 - 1.1.4. Email: washrooms@bushboard-washrooms.co.uk
 - 1.2. Product reference: Protec Lockers (4 lockers per Locker Combination Unit)
2. Locker type: Four doors.
3. Dimensions: 1800 x 500 mm (overall).
4. Material: Doors and carcass: 13 mm SGL, Shelves: Injection moulded.
5. Finish: Solid grade laminate.
6. Colour: To be confirmed
7. Fittings: To be confirmed
8. Width (see manufacturer's guidance): 400 mm.
9. Other requirements: Base Units / False End (corner / straight) Panels / Top panels (to prevent void spaces)
10. Standard: To BS 4680.
 - 10.1. Test level: Heavy duty
11. Dimensions
 - 11.1. Overall length: 1850mm
12. Lock type: To be confirmed
13. Fittings: Fixed to wall / bolted together /

15 Coffee Tables Main Building Only

1. Description: Coffee Tables
2. Manufacturer: Contract Chair Co.
 - 2.1. Product reference: Lodge Coffee Table
3. Plan shape: Rectangular.

16 Dinning Tables Main Building Only

1. Description: Dinning Tables
2. Manufacturer: Contract Chair Co.
 - 2.1. Product reference: Skyline Flip Top Round Dining Table
3. Plan shape: Circular.

25 Chairs Main Building Only - Stackable Chairs

1. Description: Cafe Dining Chairs
2. Manufacturer: Contract Chair Co.
 - 2.1. Product reference: Bavaria Armchair
3. Size: as manufacturer's standard
4. Seat/ back/ arms
 - 4.1. Material: as manufacturer's standard
 - 4.2. Finish/ colour: as manufacturer's standard
5. Frame
 - 5.1. Material: as manufacturer's standard
 - 5.2. Finish/ colour: as manufacturer's standard
6. Verification:
 - 6.1. Submittals:
 - 6.2. Timing:

26 Bar Stools Main Building Only

1. Description: Bar Stools
2. Manufacturer: Contract Chair Co.
 - 2.1. Product reference: Bavaria High Stool
3. Size: as manufacturer's standard
4. Seat/ back/ arms
 - 4.1. Material: as manufacturer's standard
 - 4.2. Finish/ colour: as manufacturer's standard
5. Frame
 - 5.1. Material: as manufacturer's standard
 - 5.2. Finish/ colour: as manufacturer's standard
6. Verification:
 - 6.1. Submittals:
 - 6.2. Timing:

27 Sofas Main Building Only

1. Description: Sofas
2. Manufacturer: Contract Chair Co.
 - 2.1. Product reference: Cassis Sofa
3. Size: as manufacturer's standard
4. Seat/ back/ arms
 - 4.1. Material: as manufacturer's standard
 - 4.2. Finish/ colour: as manufacturer's standard
5. Frame
 - 5.1. Material: as manufacturer's standard
 - 5.2. Finish/ colour: as manufacturer's standard

30 Shelving systems Main Building Only

1. Description: Cleaner's Store / Equipment Stores /
2. Standard: To [BS EN 16122](#).

3. **Manufacturer:** Action Storage, 6 Fitzharmon Court, Wolverton Mill South, Milton Keynes M12 6LB
Tel:0800 592215.
 - 3.1. **Product reference:** Heavy Duty Panel shelving
4. **Dimensions:** 2500mm uprights, 5 no 600 deep shelves per bay
 - 4.1. **Shelf spacing:**
5. **Shelves**
 - 5.1. **Material:** Melamine-faced particle board (internal). MDF (external).
 - 5.2. **Finish/ colour:** Natural.

70 Blinds Main Building Only

1. **Description:** Office Window / Cafe Area
2. **Standard:** To BS EN 13120.
3. **Manufacturer:** Contractor's choice
 - 3.1. **Product reference:** CRS 40mm Roller Blind (Manual).
4. **Type:** Vertical roller
5. **Dimensions:** To suit window sizes
6. **Material:** Fabric
 - 6.1. **Finish/ Colour:** AlphaShade 20 Flame Retardant solar reflective dimout fabric
7. **Operation:** Manual, stainless steel ball chain
8. **Operating effort:** Class 1
9. **Testing:** Not required
10. **Mechanism endurance:** Class 1
11. **Accessories/ Other requirements:** Extruded aluminium hembar, Chain retainer

80 Sealant

1. **Description:** To lockers / Benches, etc
2. **Standard:** To [BS EN ISO 11600](#), Class F20 HM.
3. **Type:** One-part silicone.
4. **Manufacturer:** Submit proposals
 - 4.1. **Product reference:** Submit proposals.
5. **Colour:** To match wall colour
6. **Cure:** Neutral cure.
7. **Other requirements:** Fungicidal.
8. **Application:** As section Z22.

85 Benching Type A

1. **Manufacturer:** [Bushboard Washroom Systems Ltd](#)
 - 1.1. **Contact details**
 - 1.1.1. **Address:** Bushboard Washroom Systems Limited
Unit 1400, 1st Floor, Montagu Court
Kettering Venture Park
Kettering
Northamptonshire
United Kingdom
NN15 6XR
 - 1.1.2. **Telephone:** [+44 \(0\)1536 533620](tel:+441536533620)
 - 1.1.3. **Web:** www.bushboard-washrooms.co.uk

- 1.1.4. Email: washrooms@bushboard-washrooms.co.uk
- 1.2. Product reference: Cantilever bench available with optional coat rail
- 2. Form: wall-mounted.
- 3. Materials
 - 3.1. Worktop
 - 3.1.1. Material: High pressure laminate (HPL).
 - 3.1.2. Finish and colour: TBC

86 Benching Type B

- 1. Manufacturer: [Bushboard Washroom Systems Ltd](#)
 - 1.1. Contact details
 - 1.1.1. Address: Bushboard Washroom Systems Limited
Unit 1400, 1st Floor, Montagu Court
Kettering Venture Park
Kettering
Northamptonshire
United Kingdom
NN15 6XR
 - 1.1.2. Telephone: [+44 \(0\)1536 533620](tel:+44(0)1536533620)
 - 1.1.3. Web: www.bushboard-washrooms.co.uk
 - 1.1.4. Email: washrooms@bushboard-washrooms.co.uk
 - 1.2. Product reference: Freestanding bench with available with optional shoe rack
- 2. Form: wall-mounted.
- 3. Materials
 - 3.1. Worktop
 - 3.1.1. Material: High pressure laminate (HPL).
 - 3.1.2. Finish and colour: TBC

96 Letter boxes

- 1. Manufacturer: [The Safety Letterbox Company](#)
 - 1.1. Contact details
 - 1.1.1. Address: Unit 1B
Milland Road Industrial Estate
Milland Road
Neath
West Glamorgan
SA11 1NJ
 - 1.1.2. Telephone: [+44 \(0\)1639 633525](tel:+44(0)1639633525)
 - 1.1.3. Web: <https://www.safetyletterbox.com/>
 - 1.1.4. Email: enquiries@safetyletterbox.com
 - 1.2. Product reference: [FR3 - 120 Fire Rated Through The Wall Mailbox](#)
- 2. Standard: To BS EN 13724, BS EN 1363-1 2012, BS 476 Parts 6 & 7.
- 3. Classification grades (minimum)
 - 3.1. Aperture size: 235 x 32 mm.
- 4. Fire resistance: 120 minutes.
- 5. Form: Through the wall.
- 6. Size: 360 x 125 x 276 mm.

7. **Materials:** Zintec steel.
8. **Integral accessories:** Supplied with a set of two keys.

Ω End of Section

N12

Commercial catering fittings, furniture and equipment

Products

310 Food preparation (Specialist Kitchen Consultant) Main Building Only (Contractor's Design)

1. Description: Kitchen
2. Manufacturer: Space Group or Similar approved
 - 2.1. Product reference: Refer to drawings and specification by specialist consultant (including all base units, wall units, sink/drainers, hand wash basin, brassware, shelving, and appliances, etc).
3. Work surface
 - 3.1. Material: Stainless steel grade 1.4301 (304)

Execution

620 Installation generally

1. Fixing and fasteners: As [section Z20](#).
2. Services: As services specification

630 Installing equipment, units, appliances and worktops

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

640 Services to equipment, units and appliances

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

650 Installing sinks, taps, traps and wastes

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

660 Sealant bedding and pointing

1. Application: As [Section Z22](#)
2. Bedding: Sink to top of worktop
3. Pointing: Between units and splashbacks / Between units and floor

Completion

910 General

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

920 Equipment, units and appliances

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

Ω End of Section

N13

Sanitary appliances and fittings

Clauses

Read in conjunction with Preliminaries and general conditions

Products

10 WC pans Main Building Only - Main Male & Female Wcs (6 No.) / Small Wc Rooms (6 No.)

1. Standard: To [Defra WC suite performance specifications](#) or equivalent approved by relevant water company
2. Type: Wall-hung, concealed cistern
 - 2.1. Material: Vitreous china
 - 2.2. Colour: White
3. Pan: Pan Height 395 mm.
 - 3.1. Standards: To BS EN 33 and BS EN 997, Class 2
 - 3.2. Manufacturer: [Armitage Shanks](#)
 - 3.2.1. Contact details
 - 3.2.1.1. Address: Armitage
Old Road
Rugeley
Staffordshire
WS15 4BT
 - 3.2.1.2. Telephone: +44 (0)870 122 8822
 - 3.2.1.3. Web: <https://www.idealspec.co.uk/>
 - 3.2.1.4. Email: productinfo@idealspec.co.uk
 - 3.2.2. Product reference: HBN 00-10 HTM64 (WC H) Contour 21+ Wall Hung Rimless Toilet
4. Material: Glazed fireclay, white
5. Seat: Soft Close - contrasting colour
6. Pan connector: To BS 5627, colour to match pan
7. Flushing arrangement: S4504 Contemporary flush plate dual flush
 - 7.1. Manufacturer: as pan manufacturer
 - 7.1.1. Product reference: S3326(67) Conceala 3 dual flush 6/4 litre cistern
 - 7.2. Operating control: Palm Push button
 - 7.3. Flush volume: Dual flush 6 or 4 L
8. Accessories: S9139 Support bracket for wall mounted WC raised height with bolts

10 WC pans Tioliet Block Only - Main Male & Female Wcs (3 No.)

1. Standard: To [Defra WC suite performance specifications](#) or equivalent approved by relevant water company
2. Type: Back to wall, concealed cistern
 - 2.1. Material: Vitreous china
 - 2.2. Colour: White
3. Pan: Pan Height 395 mm.

- 3.1. Standards: To BS EN 33 and BS EN 997, Class 2
- 3.2. Manufacturer: [Armitage Shanks](#)
 - 3.2.1. Contact details
 - 3.2.1.1. Address: Armitage
Old Road
Rugeley
Staffordshire
WS15 4BT
 - 3.2.1.2. Telephone: [+44 \(0\)870 122 8822](tel:+44(0)8701228822)
 - 3.2.1.3. Web: <https://www.idealspec.co.uk/>
 - 3.2.1.4. Email: productinfo@idealspec.co.uk
 - 3.2.2. Product reference: [Contour 21+ 70cm Projection Back-to-Wall Rimless Toilet](#)
- 3.3. Standard: To BS EN 997, Class 2.
- 3.4. Form: Back-to-wall, washdown.
- 3.5. Connecting dimensions: To BS EN 33.
- 3.6. Pan height: 450 mm.
- 3.7. Materials
 - 3.7.1. Body: Vitreous china.
 - 3.7.2. Finish and colour: Glossy white, anti-microbial glaze.
- 3.8. Water supply, outlet and seat holes
 - 3.8.1. Water supply: Back inlet.
- 3.9. Integral accessories: Concealed bracket.
- 3.10. Net weight: 33.80 kg.
- 3.11. Compliance: Complies with HTM64 (WC HD) and HBN 00-10.
- 4. Material: Glazed fireclay, white
- 5. Seat: Soft Close - contrasting colour
- 6. Pan connector: To BS 5627, colour to match pan
- 7. Flushing arrangement: S4504 Contemporary flush plate dual flush
 - 7.1. Manufacturer: as pan manufacturer
 - 7.1.1. Product reference: S3326(67) Conceala 3 dual flush 6/4 litre cistern
 - 7.2. Operating control: Palm Push button
 - 7.3. Flush volume: Dual flush 6 or 4 L
- 8. Accessories: S9139 Support bracket for wall mounted WC raised height with bolts

12 Accessible WC equipment packages Main Building & Toilet Block

- 1. Description:
- 2. Manufacturer: [Armitage Shanks](#)
 - 2.1. Contact details
 - 2.1.1. Address: Armitage
Old Road
Rugeley
Staffordshire
WS15 4BT
 - 2.1.2. Telephone: [+44 \(0\)870 122 8822](tel:+44(0)8701228822)
 - 2.1.3. Web: <https://www.idealspec.co.uk/>
 - 2.1.4. Email: productinfo@idealspec.co.uk

- 2.2. Product reference: S0683(AC) Doc M Contour 21+ close coupled corner pack - refer to drawings for left or right
3. Type approval certificate: Submit.
4. Finish/ colour
 - 4.1. Pan: Vitreous china, white
 - 4.2. Cistern: Manufacturer's standard
 - 4.3. Seat: soft close - contrasting colour
 - 4.4. Basin: Vitreous china, white
 - 4.5. Handrails and grab bars: Stainless steel
5. Transfer handling: Left-hand / Right-hand - refer to drawings
6. Water supply fittings (basin): Lever-operated pillar taps
7. Water supply temperature (maximum): 48°C

13 Accessible WC equipment packages Man Building Only Disabled Changing Room Shower

1. Description: Disabled Changing Shower Kit
2. Manufacturer: [Armitage Shanks](#)
 - 2.1. Contact details
 - 2.1.1. Address: Armitage
Old Road
Rugeley
Staffordshire
WS15 4BT
 - 2.1.2. Telephone: +44 (0)870 122 8822
 - 2.1.3. Web: <https://www.idealspec.co.uk/>
 - 2.1.4. Email: productinfo@idealspec.co.uk
 - 2.2. Product reference: S0755(AC) Shower room pack with folding shower seat and back support in grey, 3x 60cm grabrails, 45cm grab rail, 80cm hinged arm, lever operated exposed shower valve, Dual head shower kit, shower curtain and rails.
3. Type approval certificate: Submit.
4. Finish/ colour
 - 4.1. Seat, folding: Manufacturer's standard
 - 4.2. Back support: Manufacturer's standard
 - 4.3. Handrails and grab bars: Stainless steel
5. Shower fittings: Thermostatic shower mixer, lever-operated as manufacturer's standard
 - 5.1. Finish: Stainless steel
 - 5.2. Operating control: Manufacturer's standard
 - 5.3. Water supply temperature (maximum): 43°C
 - 5.4. Flow rate: 9 L/ min. at 37°C at 3 bar

14 Accessible WC equipment packages Main Building Only - Home & Away Team Changing Room Showers

1. Description:
2. Manufacturer: [Armitage Shanks](#)
 - 2.1. Contact details
 - 2.1.1. Address: Armitage
Old Road

Rugeley
Staffordshire
WS15 4BT

- 2.1.2. Telephone: +44 (0)870 122 8822
- 2.1.3. Web: <https://www.idealspec.co.uk/>
- 2.1.4. Email: productinfo@idealspec.co.uk
- 2.2. Product reference: S6407(AA) Concept Freedom shower pack
- 3. Type approval certificate: Submit.
- 4. Finish/ colour
 - 4.1. Seat, folding: Manufacturer's standard
 - 4.2. Back support: Manufacturer's standard
 - 4.3. Handrails and grab bars: Stainless steel
- 5. Shower fittings: Thermostatic shower mixer, lever-operated as manufacturer's standard
 - 5.1. Finish: Stainless steel
 - 5.2. Operating control: Manufacturer's standard
 - 5.3. Water supply temperature (maximum): 43°C
 - 5.4. Flow rate: 9 L/ min. at 37°C at 3 bar

15 Wall-hung urinals Main Building Only - Male WC

- 1. Manufacturer: [Armitage Shanks](#)
 - 1.1. Contact details
 - 1.1.1. Address: Armitage
Old Road
Rugeley
Staffordshire
WS15 4BT
 - 1.1.2. Telephone: +44 (0)870 122 8822
 - 1.1.3. Web: <https://www.idealspec.co.uk/>
 - 1.1.4. Email: productinfo@idealspec.co.uk
 - 1.2. Product reference: S1289(MY) Kinloch urinal 240cm long complete with 2" domed strainer waste, centre outlet, complete with pipework and autocistern
- 2. Urinals: Trough
 - 2.1. Material: Stainless steel to [BS 4880-1](#)
 - 2.2. Colour: Self-finished
- 3. Traps:
- 4. Cisterns: (complete with automatic siphon, lid, supports and fixings): as supplied
- 5. Flush pipe: Stainless steel exposed flushpipe
- 6. Accessories: Tags for equipotential earth bonding

16 Wall-hung urinals Toilet Block Only - Male WC

- 1. Manufacturer: [Armitage Shanks](#)
 - 1.1. Contact details
 - 1.1.1. Address: Armitage
Old Road
Rugeley
Staffordshire
WS15 4BT

- 1.1.2. Telephone: [+44 \(0\)870 122 8822](tel:+44(0)8701228822)
- 1.1.3. Web: <https://www.idealspec.co.uk/>
- 1.1.4. Email: productinfo@idealspec.co.uk
- 1.2. Product reference: Sanura HygenIQ Bowl Urinal 50/40cm - Mura Exposed Auto Cistern
- 2. Form: Bowl.
- 3. Materials
 - 3.1. Body: Vitreous china.
 - 3.2. Finish and colour: White.
- 4. Urinals: Trough
 - 4.1. Material: Stainless steel to [BS 4880-1](#)
 - 4.2. Colour: Self-finished
- 5. Cisterns: (complete with automatic siphon, lid, supports and fixings): as supplied
- 6. Flush pipe: Stainless steel exposed flushpipe
- 7. Accessories: Tags for equipotential earth bonding

25 Cleaner's sink Main Building Only - Cleaners

- 1. Description: Cleaner's Cupboard
- 2. Type: Belfast, to [BS 1206](#)
- 3. Manufacturer: [Armitage Shanks](#)
 - 3.1. Contact details
 - 3.1.1. Address: Armitage
Old Road
Rugeley
Staffordshire
WS15 4BT
 - 3.1.2. Telephone: [+44 \(0\)870 122 8822](tel:+44(0)8701228822)
 - 3.1.3. Web: <https://www.idealspec.co.uk/>
 - 3.1.4. Email: productinfo@idealspec.co.uk
 - 3.2. Product reference: S5900(01) Alder sink 51cm x 38cm high back and fitted stainless steel bucket grating
- 4. Size: 51cm x 38cm
- 5. Material: Glazed fireclay
- 6. Colour: White
- 7. Tap holes: No tap holes
- 8. Taps: Wall-mounted on back plate elbow / Alterna 21 bib taps 1/2" lever handles with anti-vandal outlet (pair) & Bib Tap
Mount Nimbus 21 exposed bib tap wall mount with self centralising installation (pair).
 - 8.1. Material: Chromium-plated
 - 8.2. Size: ¾ -inch BSP
 - 8.3. Water supply temperature (maximum): 48°C
- 9. Wastes: S8726(AA) Waste 1½" unslotted strainer waste, 80mm tail. brass
 - 9.1. Standards: To [BS EN 274-1](#), -2 and -3.
 - 9.2. Manufacturer: As sink manufacturer
 - 9.3. Material: Brass, chrome-plated
 - 9.4. Tail: Unslotted

10. **Traps:** Trap S8925(67) Trap 1½" plastic resealing bottle with 75mm seal, multi-purpose outlet.
 - 10.1. **Standards:** To [BS EN 274-1](#), -2 and -3.
 - 10.2. **Manufacturer:** As sink manufacturer
 - 10.3. **Size:** DN 50
11. **Accessories:** Domex Screw Pack S9101(01); Sink Support S9233(MY) Leg 350mm stainless steel with 355mm screw to wall Aluminium alloy bearer, 305mm stud (pair).

30 Washbasin manual water supply sets Main Building Only - Official's Changing Rooms & First Aid Room

1. **Type:**
2. **Manufacturer:** [Armitage Shanks](#)
 - 2.1. **Contact details**
 - 2.1.1. **Address:** Armitage
Old Road
Rugeley
Staffordshire
WS15 4BT
 - 2.1.2. **Telephone:** [+44 \(0\)870 122 8822](tel:+44(0)8701228822)
 - 2.1.3. **Web:** <https://www.idealspec.co.uk/>
 - 2.1.4. **Email:** productinfo@idealspec.co.uk
 - 2.2. **Product reference:** T3732(01) Extra 45cm 1 taphole handrinse basin with overflow
3. **Material:** Vitreous china to [BS EN 14688](#)
4. **Colour:** White
5. **Size:** 450mm
6. **Tap holes:** One tap hole
7. **Taps:** B8263(AA) Avon 21 1 hole washbasin mixer , self closing push button, variable temperature control with 15mm female connector flexible hoses on inlets.
 - 7.1. **Type:** Pillar
 - 7.2. **Material:** Chromium-plated
 - 7.3. **Size:** ½ -inch BSP
 - 7.4. **Manufacturer:** As basin manufacturer
 - 7.5. **Water supply temperature (maximum):** 48°C
8. **Wastes:** E1482(AA) 1 1/4" basin clicker waste: slotted
9. **Traps:** E0079(AA) Trap 1¼" Contemporary metal bottle, 75mm seal
10. **Accessories:** E0157(67) Wall fixing set

31 Washbasin manual water supply sets Main Building & Toilet Block - Main Male & Female Toilets

1. **Type:**
2. **Manufacturer:** [Armitage Shanks](#)
 - 2.1. **Contact details**
 - 2.1.1. **Address:** Armitage
Old Road
Rugeley
Staffordshire
WS15 4BT
 - 2.1.2. **Telephone:** [+44 \(0\)870 122 8822](tel:+44(0)8701228822)

- 2.1.3. Web: <https://www.idealspec.co.uk/>
- 2.1.4. Email: productinfo@idealspec.co.uk
- 2.2. Product reference: S0628(01) Silhouette 3000mm 5 person washtrough with waste
- 3. Material: Cast acrylic
- 4. Colour: White
- 5. Size: 3000mm
- 6. Tap holes: Five tap holes
- 7. Taps: A4852(AA) Sensorflow 21 compact washbasin mounted spout with integral sensor, 3.7 litre per minute aerated spray outlet, combined inlet servicing valve and filter, mains
 - 7.1. Type: Pillar
 - 7.2. Material: Chromium-plated
 - 7.3. Size: ½ -inch BSP
 - 7.4. Manufacturer: As basin manufacturer
 - 7.5. Water supply temperature (maximum): 48°C
- 8. Wastes: Manufacturer's standard
- 9. Traps: DN 30 bottle trap, 75 mm seal
- 10. Accessories: Concealed support frame

32 Washbasin manual water supply sets Main Building Only - Baby Change

- 1. Type: Wall-hung
- 2. Manufacturer: [Armitage Shanks](#)
 - 2.1. Contact details
 - 2.1.1. Address: Armitage
Old Road
Rugeley
Staffordshire
WS15 4BT
 - 2.1.2. Telephone: +44 (0)870 122 8822
 - 2.1.3. Web: <https://www.idealspec.co.uk/>
 - 2.1.4. Email: productinfo@idealspec.co.uk
 - 2.2. Product reference: T4393(01) Linda X 60cm washbasin,
1 taphole, no overflow
- 3. Material: Vitreous china to [BS EN 14688](#)
- 4. Colour: White
- 5. Size: 600mm
- 6. Tap holes: One tap hole
- 7. Taps: BD472(AA) Gusto single lever 1 taphole semi-pro kitchen mixer
 - 7.1. Type: Pillar
 - 7.2. Material: Chromium-plated
 - 7.3. Size: ½ -inch BSP
 - 7.4. Manufacturer: As basin manufacturer
 - 7.5. Water supply temperature (maximum): 30°C
- 8. Wastes: S8720(AA) Waste 1¼" brass strainer waste, 80mm unslotted tail
- 9. Traps: E0079(AA) Trap 1¼" Contemporary metal bottle, 75mm seal
- 10. Accessories: E0157(67) Wall fixing set / A1313(NU) Built-in basin mixer kit 1, horizontal

45 Wet room floor formers Main Changing Room Showers & Official Changing Room Showers

1. Wet room floor former tray
 - 1.1. Substrate: New screeded floor
 - 1.2. Manufacturer: [WM | Wetroom Materials](#)
 - 1.2.1. Contact details
 - 1.2.1.1. Address: Derwentside
25 Town Street
Duffield ,
Belper , Derbyshire,
England
United Kingdom
DE56 4EH
 - 1.2.1.2. Telephone: [+44 \(0\)1332 840820](tel:+44(0)1332840820)
 - 1.2.1.3. Web: <https://www.wetroommaterials.com>
 - 1.2.1.4. Email: sales@wetroommaterials.com
 - 1.2.2. Product reference: Wet Room Tanking/Waterproofing Kits LIP VS30 (3kg & 12kg)
supplied with wet room former tray or Membrane tanking
kit supplied with wet room former tray
 - 1.3. Accessories: A5900(AA) TMV thermostatic mixing valve, 15mm
2. Waterproofing/ tanking: Membrane tanking kit supplied with wet room former tray
3. Drainage: Refer to M&E Specification (Drain with Heat recovery)
4. Shower fittings: S1304(MY) Kirn wall mounted stainless steel shower panel with anti-vandal shower head and self-closing push button shower valve
 - 4.1. Manufacturer: Ideal Standard
 - 4.2. Finish: Stainless Steel
 - 4.3. Water supply temperature (maximum): 48°C
 - 4.4. Flow rate: 9 L/min. at 37°C at 3 bar

59 Wall Mounted Toilet Brush Main Building & Toilet Block

1. Manufacturer: Armitage Shanks
 - 1.1. Product reference: A7927 IOM wall mounted toilet brush and holder set

60 Toilet paper holders Main Building & Toilet Block

1. Description: All Wcs
2. Manufacturer: Dolphin Solutions
 - 2.1. Product reference: DOLPHIN MINI JUMBO ROLL TOILET TISSUE DISPENSER BC945
3. Type: Toilet roll holder, wall-mounted
4. Material: 304 grade stainless steel
5. Colour: Brushed satin finish

61 Sanitary Bins Main Building & Toilet Block - Main Female Wc Cubicles

1. Manufacturer: Dolphin Solutions
 - 1.1. Product reference: DOLPHIN SANITARY BIN BC980

62 Soap dispensers Main Building & Toilet Block

1. Description: Small Wcs / First Aid Room / Dis. Wcs

2. Manufacturer: [Dolphin Solutions](#)

2.1. Contact details

2.1.1. Address: Southpoint
Compass Park
Junction Road
Bodiam
East Sussex
TN32 5BS

2.1.2. Telephone: [+44 \(0\)1424 202224](tel:+44(0)1424202224)

2.1.3. Web: <https://www.dolphinsolutions.com>

2.1.4. Email: info@dolphinsolutions.co.uk

2.2. Product reference: BC926 Dolphin Stainless Steel Liquid Soap Dispenser (BC926S - Satin)

3. Type: Wall mounted / Built in Tank

4. Material: Stainless steel - satin

63 Glass mirrors Main Building & Toilet Block

1. Description: To WCs (full length & Above Basin)

2. Manufacturer: Saint-Gobin Glass

2.1. Product reference: Contractor's choice

3. Type: 6 mm clear float glass

4. Size: frameless Clear silvered glass (Full length in accessible WC and standard height and width in toilets / Male & Female Wc standard height, full width of toughs).

5. Protective backing: Anticorrosive paint

64 Hand dryers Main Building & Toilet Block

1. Description:

2. Manufacturer: [Dolphin Solutions](#)

2.1. Contact details

2.1.1. Address: Southpoint
Compass Park
Junction Road
Bodiam
East Sussex
TN32 5BS

2.1.2. Telephone: [+44 \(0\)1424 202224](tel:+44(0)1424202224)

2.1.3. Web: <https://www.dolphinsolutions.com>

2.1.4. Email: info@dolphinsolutions.co.uk

2.2. Product reference: [BC2008 DOLPHIN VELOCITY MINI HAND DRYER \(Satin\)](#)

3. Operation: Automatic.

4. Timer: Adjustable.

5. Electrical supply

5.1. Power rating: 500–1000 W (stand-by power <0.5 W).

6. Body

6.1. Material: Stainless steel.

6.2. Finish: Satin.

6.3. Colour: Grey/ silver.

6.4. Dimensions: 270.1 x 161.4 x 101 mm.

7. Accessories: Splash panel - Full Height (floor to ceiling)
8. Weight: 3.3 kg.
9. Heater: 250–500 W.
10. Sound: 69 db.
11. Motor: 29 000 rpm.
12. Air speed: 342–414 km/h.
13. Ingress protection (IP) rating: IP24.
14. Volume: 80 m³/h.
15. Use: 288 000 uses.
16. Drying time: Ten seconds.

65 Air Fresheners Main Building Only

1. Description: Main Male & Female Wcs
2. Manufacturer: Rubbermaid
 - 2.1. Product reference: Microburst 3000 Lumecel Automatic Air Freshener

66 Clothes Hooks Main Building & Toilet Block - cubicle doors / Dis Wcs doors / First Aid Room Door / Baby Change Door /

1. Manufacturer: Nicholls & Clarke
 - 1.1. Product reference: S6000073 robe hook

67 Baby Changing Units Main Building & Toilet Block - Baby Change / Disabled Changing

1. Manufacturer: Dolphin Solutions
 - 1.1. Product reference: BC100EH-SS Dolphin Wall Mounted Stainless Steel Changing Table

68 Sealant for pointing

1. Standard: To BS EN ISO 11600
 - 1.1. Class: F20 HM
2. Type: Silicone
 - 2.1. Manufacturer: Contractor's choice
3. Colour: to Match appliances finish

69 Support rails Additional Support Brackets (Ambulant Toilets)

1. Manufacturer: [Armitage Shanks](#)
 - 1.1. Contact details
 - 1.1.1. Address: Armitage
Old Road
Rugeley
Staffordshire
WS15 4BT
 - 1.1.2. Telephone: [+44 \(0\)870 122 8822](tel:+44122388228822)
 - 1.1.3. Web: <https://www.idealspec.co.uk/>
 - 1.1.4. Email: productinfo@idealspec.co.uk
 - 1.2. Product reference: S0831(XG) Contemporary 21 45cm contemporary grab rail / S0830(XG) Contemporary 21 60cm contemporary grab rail
2. Form: Fixed.

3. Materials

- 3.1. Body: Aluminium.
- 3.2. Finish and colour: Chrome plated, chrome.

70 Installation generally

- 1. Standards: In accordance with BS 6465-1, -2 and -3.
- 2. Assembly and fixing: Fix appliances securely to structure, without taking support from pipelines, level and plumb and so that surfaces designed to fall drain as intended.
- 3. Fasteners: Non-ferrous or stainless steel.
- 4. Jointing and bedding compounds: Recommended by manufacturers of appliances, accessories and pipes, to form watertight joints between appliances and backgrounds (except cisterns) and between appliances and discharge pipes.
- 5. Supply and discharge pipework: Fix before appliances.
- 6. Timing: Tiled backgrounds, other than splashbacks, complete before fixing appliances. Do not overstress tiles when fixing appliances.
- 7. On completion: Components and accessories working correctly with no leaks.
- 8. Labels and stickers: Remove.

74 Installing wet room floor former trays

- 1. Preparation: As manufacturer's recommendations/instructions
- 2. Waterproofing/ tanking: As manufacturer's recommendations/instructions

75 Installing cisterns

- 1. Cistern operating components: Obtain from cistern manufacturer.
- 2. Inlet and flushing valves: Match to pressure of water supply.
- 3. Internal overflows: Into pan, to give visible warning of discharge.
- 4. External overflows: Fix pipes to falls, and locate to give visible warning of discharge. Agree position.

76 Installing taps

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

77 Installing wastes and overflows

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

81 Sealant bedding and pointing

- 1. Pointing: Joints between appliances and walls, splashbacks and floors

Ω End of Section

N14

General internal signage systems

General

110 Signage system Main Building Only

1. Description: Room Designation, Wayfinding, etc
2. System manufacturer: Signs2Schools or equivalent approved
 - 2.1. Product reference: Curved Modern Wall or Door Signs
3. Sign type: Submit proposals.
4. Layout and dimensions: Submit proposals.
5. Lettering
 - 5.1. Language: English.
 - 5.2. Font: Helvetica Medium.
 - 5.3. Colour: Manufacturer's standard range.
 - 5.4. Size: Manufacturer's standard range.
6. Symbols and graphics: Manufacturer's standard range.
 - 6.1. Colour: Manufacturer's standard range.
 - 6.2. Size: Manufacturer's standard range.
7. Background colour: Manufacturer's standard range.
 - 7.1. Inserts: Manufacturer's standard.
8. Supports/ fixings: Wall-mounted, screw-fixed. Ceiling, suspended wire.
9. Accessories: Clip connectors to suspension wires.

Products

320 Aluminium

1. Description: Door Plates / Wayfinding, etc
2. Manufacturer: Signs2Schools or equivalent approved
 - 2.1. Product reference: Curved Modern Wall or Door Signs
3. Standard: To [BS 559-1](#).
4. Component thickness: Submit proposals.
5. Finish: Manufacturer's standard.
6. Perimeters: Manufacturer's standard.

Execution

610 Fixing signs generally

1. Installation: Secure, plumb and level.
2. Strength of fasteners: Sufficient to support all live and dead loads.
3. Fasteners and/ or adhesives: As [section Z20](#).
4. Fixings showing on surface of sign: Must not detract from the message being displayed.

Completion

910 Documentation

1. Submit: Manufacturer's maintenance instructions.
2. Timing: At Practical Completion

Ω End of Section

N15

Internal fire and safety signage systems

General

110 Safe condition signs Main Building Only

1. System manufacturer: [Ansell Lighting](#)
 - 1.1. Contact details
 - 1.1.1. Address: Unit 6B Stonecross Ind. Park
Yew Tree Way
Warrington
Cheshire
WA3 3JD
 - 1.1.2. Telephone: [+44\(0\)1942 433333](tel:+44(0)1942 433333)
 - 1.1.3. Web: www.anselluk.com
 - 1.1.4. Email: saleswarrington@anselluk.com
2. Material: Polycarbonate.
3. Size: 286 x 212 x 35 mm.
4. Sign reference: Rotatable legends
5. Colour::
6. Lamp: 2 W LED.
7. Ingress protection: IP20.
8. Impact resistance: IK08.
9. Fixing:: Suspended (below height of suspended Acoustic panels)
10. Lamp colour temperature: 6500K.
11. Voltage: 220/240V, 50/60Hz.
12. Battery recharge time: 24 hours.
13. Batteries: 3.2V 1000mAh Li-FePO4.
14. Colour rendering index (Ra): 70.
15. Product reference: KESTREL SUSPENDED EXIT SIGN MAINTAINED/NON-MAINTAINED

System performance

205 Design of internal signage systems Main Building Only

1. Description: Refer to Fire Strategy drawings
2. Design: Complete detailed design and submit before commencing work.
3. Content: Signs including facing information, components, inserts, accessories and fixings necessary to complete the system.
4. Proposals: Submit drawings, schedules, technical information, calculations and manufacturer's literature before commencing work.

210 General requirements

1. Signage and way guidance system design: For escape route / For fire equipment.
 - 1.1. For fire escape and evacuation signage: In accordance with [BS 5499-4](#) or [BS ISO 16069](#).
 - 1.2. For way guidance systems: In accordance with [BS ISO 16069](#).
 - 1.3. For safety signs other than escape route signage: In accordance with [BS 5499-10](#).
2. Comply with the requirements of: Fire strategy report

220 Sign design and format

1. Description: For escape route / For fire equipment.
2. Format: In accordance with [BS EN ISO 7010](#).
3. Geometric shapes, colours and layout: In accordance with [BS ISO 3864-1](#).
4. Design principles for graphical symbols: In accordance with [BS ISO 3864-3](#).
5. Colorimetric and photometric properties of safety sign materials: In accordance with [BS ISO 3864-4](#)

Products

320 Aluminium plate

1. Description: Generally
2. Manufacturer: As door Ironmongery Company
 - 2.1. Product reference: Submit proposals.
3. Component thickness: 6 mm, 2 mm facing on 4 mm backing panel.
4. Finish: Manufacturer's standard.
5. Perimeters: Radiused corners
6. Supports/ fixings: Screw-fixed.
7. Accessories: Clip connectors to suspended ceiling grid

Execution

610 Fixing signs generally

1. Installation: Door / Wall / Ceiling Hanging
2. Secure, plumb and level.
3. Fasteners and adhesives: As [section Z20](#) 'Fixings and adhesives'.
4. Strength of fasteners: Sufficient to support live and dead loads.
5. Fixings showing on surface of sign: Must not detract from the message being displayed.

Completion

910 Documentation

1. Submit: Manufacturer's maintenance instructions.
2. Timing: At Practical Completion

Ω End of Section

N17

Portable and mobile firefighting systems

General

10 Portable fire extinguisher system Main Building Only

1. Description: Generally
2. Type: Carbon dioxide / Dry powder / Foam /
3. Capacity: 5 kg.
4. Supports: Fixing bracket.

15 Fire blanket system

1. Description: Cafe / Sundry
2. Type: Heavy-duty
3. Size: Submit proposals.
4. Supports: Mounting brackets.

System performance

21 Design

1. Design: Complete the design of the portable firefighting system.
 - 1.1. Basis: To fire officer's requirements.
2. Proposals: Submit drawings, technical information, calculations and manufacturers' literature.

22 Colour coding

1. Portable fire extinguishers: Colour code in accordance with [BS 5306-10](#).

Products

31 Carbon dioxide portable extinguishers

1. Standard: To [BS EN 3-9](#).
2. Manufacturer: Submit proposals
 - 2.1. Product reference: Submit proposals.

32 Dry powder portable extinguishers

1. Standard: To [BS EN 3-7](#). To [BS EN 3-10](#).
2. Manufacturer: Submit proposals
 - 2.1. Product reference: Submit proposals.

33 Foam portable extinguishers

1. Standard: To [BS EN 3-7](#). To [BS EN 3-8](#). To [BS EN 3-10](#).
2. Manufacturer: Submit proposals
 - 2.1. Product reference: Submit proposals.

41 Fire blankets – Heavy-duty

1. Standard: To [BS EN 1869](#).
2. Manufacturer: Submit proposals

- 2.1. Product reference: Submit proposals.

Execution

61 Installing portable fire extinguishers

1. Mounting height above finished floor level: Bracket fixed at 1 m.

65 Installing fire blankets

1. Mounting height above finished floor level: Above worktop

Completion

91 Cleaning

1. Protective wrappings: Remove.
2. Cleaning: Clean off and wipe down container finishes.

92 Testing

1. Test standard: To [BS 5306-0](#).
2. Test times: At completion.
3. Notice for testing (minimum): Five days.

93 Training

1. Training: Submit instruction manuals or supply other appropriate resources to train the users of the building in the safe and appropriate use of the fire extinguishers and fire blankets.
2. Fire brigade: Submit contact details.

94 Maintenance

1. Servicing: Arrange the first annual service of the portable firefighting systems.
2. Maintenance standard: To [BS 5306-0](#).

Ω End of Section

N91

External signage and interpretation

Signage outline - Not Used

System performance

205 Design of signage systems

1. Description: Wayfinding / Safety / Entrance Signage
2. Design: Complete detailed design and submit before commencing work.
3. Proposals: Submit drawings, schedules, technical information, calculations and manufacturer's literature before commencing work.

210 External signage generally

1. Signage systems generally: Complete to [BS 559](#), including components, inserts, accessories and fixings necessary to complete the system.
2. External signage: To [BS 559](#), clause 6.1.
3. Content: Signs including facing information, components, inserts, accessories and fixings necessary to complete the system.
4. Geometric shapes, colours and layout: To [BS ISO 7001](#)
5. Wind loads: To [BS EN 1991-1-4](#).

215 Design life

1. Description: External Signage
2. Duration: Ten years
 - 2.1. Subject to reasonable wear and tear.
3. Environment: Pavement / Building Face
4. Condition of use: Subject to regular maintenance.

220 Safety signage requirements

1. Description: Wayfinding / warning Signs, etc
2. General: To relevant parts of [BS ISO 3864-1](#).
3. Safety meaning: To [BS ISO 3864-1](#).
4. Geometric shapes, colours and layout: To [BS ISO 3864-1](#) and [BS ISO 3864-4](#).
5. Escape route: To [BS ISO 16069](#).

230 Accessibility

1. Design standard for disabled users: In accordance with [BS 8300-1](#).
2. Geometric shapes, colours and layout: To [BS ISO 3864-1](#)
 - 2.1. Font: Helvetica Medium.

235 Electrical requirements for illuminated signs

1. Electrical requirements for illumination: To [BS 559](#), section 7.

Products

305 Signage products generally

1. Materials: To [BS 559](#).
2. Colorimetric and photometric properties: To [BS ISO 3864-4](#).
3. Fabricated letters: To [BS 559](#), clause 6.6.
4. Fixings: To [BS 559](#), clause 6.11 and [section Z12](#) 'Preservative/ flame-retardant treatment'.

Materials - Not Used

Fabrication

505 Signage samples

1. Sign type: Waymarker
 - 1.1. Action: Submit labelled samples.
 - 1.1.1. Timing: Prior to commencement of external works
 - 1.2. Conformity: Retain samples on site for the duration of the contract, or until instructed to remove them.
 - 1.3. Delivered product: To conform to labelled samples.

520 Entrance / Safety Signage

1. Description: Wayfinding / Safety Signage
2. Manufacturer: Submit proposals
 - 2.1. Product reference: Submit proposals
3. Material: Aluminium
 - 3.1. Finish: As manufactured
 - 3.2. Background colour: Manufacturer's standard range
4. Layout and dimensions: Submit proposals
 - 4.1. Content: Submit proposals
 - 4.2. Lettering
 - 4.2.1. Manufacturing process: Manufacturer's standard
 - 4.2.2. Font: Helvetica Medium
 - 4.2.3. Size: Manufacturer's standard range
 - 4.2.4. Colours: TBC
 - 4.2.5. Language: English
 - 4.3. Symbols and graphics: Manufacturer's standard range
 - 4.3.1. Manufacturing process: Manufacturer's standard
 - 4.3.2. Size: Manufacturer's standard range
 - 4.3.3. Colours: TBC
 - 4.4. Bespoke artwork: Not required
 - 4.4.1. Manufacturing process: Manufacturer's standard
5. Fixing accessories: Concealed, vandal-proof fixings

Execution/ erection/ installation

605 Method of fixing signs

1. Description: Way finding & Safety signage

2. Sign type: Way finding & Safety signage
3. Method of fixing: anti-vandal fixing(s)

610 Fixing signs generally

1. Generally: Where not specified precisely, select methods of jointing and fixing, and types, sizes and spacings of fasteners in compliance with [section Z20](#)..
2. Installation: To [BS 559-1](#).
 - 2.1. Secure, plumb and level.
3. Strength of fasteners: Sufficient to support all live and dead loads.
4. Fasteners and/ or adhesives: As [section Z20](#)..
5. Fasteners for external signs: Corrosion-resistant material or with a corrosion-resistant finish. Isolate dissimilar metals to avoid electrolytic corrosion.
6. Fixings showing on surface of sign: Must not detract from the message being displayed.
7. Temporary support: Do not subject members to non-design loadings.
8. Protection of users
 - 8.1. Fasteners for signs must not have sharp edges or protrusions that would cause injury to users.
 - 8.2. Fasteners for tactile/ Braille signs must not have protrusions that would cause confusion to users.

Completion - Not Used

Ω End of Section

P10

Sundry insulation/ proofing work

To be read with preliminaries/ general conditions.

10 Mineral wool insulation Main Building Only - Loft Insulation

1. Manufacturer: [Knauf Insulation Ltd](#)
 - 1.1. Contact details
 - 1.1.1. Address: Knauf Insulation Limited
Stafford Road
St Helens
Merseyside
WA10 3LZ
 - 1.1.2. Telephone: +44 (0)1744 766 666
 - 1.1.3. Web: <https://knauf.com/en-GB>
 - 1.1.4. Email: technical.uk@knaufinsulation.com
 - 1.2. Product reference: Knauf Insulation - Loft Roll 44 (Combi-cut/Ready-cut/Uncut and Short Length) - Loft Floor Insulation
2. Standard: To BS EN 13162.
3. Third-party certification: Eurofins Gold. Euroclass A1 Reaction to Fire Classification. CE Marking. EPD (EN 15804+A2). EUCEB. Made in Britain. Declare 'Red List Free'.
4. Form: Roll.
5. Facing: Unfaced.
6. Thickness (minimum): 50 / 150 / 300 mm (overall thickness 450mm)
7. Width (nominal): 1140 mm (2 x 570 mm).
8. Thermal conductivity (maximum): 0.044 W/m·K.
9. Fire performance: Euroclass A1 to BS EN 13501-1.
10. Recycled content: Up to 80%.
11. Vapour resistivity: 5.00 MN·s/g·m.
12. Environmental Product Declaration (EPD): EPD available. In accordance with BS EN 15804+A2.
13. Green guide rating: A+.
14. Indoor air quality: Eurofins Gold achieved.
15. VOC emissions: Products manufactured with ECOSE® Technology generate low levels of dust, VOCs and contain no added formaldehyde or phenol.
16. U-value:
17. Durability: Odourless, rot proof, non-hygroscopic, do not sustain vermin and will not encourage the growth of fungi, mould or bacteria. The product will have a life equivalent to that of the wall structure in which it is incorporated.
18. Thermal resistance: 3.41 m²K/W.

15 Polyisocyanurate (PIR) foam boards Main Building Only - Between Rafters

1. Manufacturer: [Kingspan Insulation](#)
 - 1.1. Contact details
 - 1.1.1. Address: Kingspan Insulation Ltd
Pembroke
Leominster
Herefordshire

United Kingdom
HR6 9LA

- 1.1.2. Telephone: +44 (0)1544 388601
- 1.1.3. Web: <https://www.kingspan.com/gb/en-gb>
- 1.1.4. Email: info@kingspaninsulation.co.uk
- 1.2. Product reference: [Kingspan Kooltherm K107 Pitched Roof Board \(Kingspan Kooltherm K107 Pitched Roof Board - 150 mm\)](#)
- 2. Standard: To BS EN 13166.
- 3. Third-party certification: British Board of Agrément (BBA) certification.
- 4. Fire performance: Euroclass RtF F to BS EN 13501-1:2018.
- 5. Thermal conductivity (maximum): 0.019 W/m·K.
- 6. Compressive strength (minimum) at 10% compression: 100 kPa.
- 7. Cross section: Uniform thickness.
- 8. Thickness: 150 mm.
- 9. Face size (length x width): 2400 x 1200 mm.
- 10. Recycled content: 0% (minimum) to BS EN ISO 14021.
- 11. Edges: Square.
- 12. Facing: Metal foil laminate.
- 13. Core: Rigid thermoset fibre-free phenolic insulant core.
- 14. Material: Phenolic foam to BS EN 13166
 - 14.1. Facing: Polyethylene
 - 14.2. Recycled content: Not applicable
 - 14.3. Thickness: 150mm
- 15. Installation requirements
 - 15.1. General: Insulation to be friction fitted between rafters with no gaps.
 - 15.2. Joints: Butted, no gaps.
 - 15.3. Fasteners: Used where necessary to retain insulation and/or prevent slumping.
 - 15.4. Air space above insulation: Unobstructed
 - 15.5. Eaves ventilation: Unobstructed

16 Phenolic foam boards Main Building Only - Between Rafters

- 1. Manufacturer: [Kingspan Insulation](#)
 - 1.1. Contact details
 - 1.1.1. Address: Kingspan Insulation Ltd
Pembroke
Leominster
Herefordshire
United Kingdom
HR6 9LA
 - 1.1.2. Telephone: +44 (0)1544 388601
 - 1.1.3. Web: <https://www.kingspan.com/gb/en-gb>
 - 1.1.4. Email: info@kingspaninsulation.co.uk
 - 1.2. Product reference: [Kingspan Kooltherm K107 Pitched Roof Board \(Kingspan Kooltherm K107 Pitched Roof Board - 80 mm\)](#)
- 2. Standard: To BS EN 13166.
- 3. Third-party certification: British Board of Agrément (BBA) certification.

4. Fire performance: Euroclass RtF F to BS EN 13501-1:2018.
5. Thermal conductivity (maximum): 0.019 W/m·K.
6. Compressive strength (minimum) at 10% compression: 100 kPa.
7. Cross section: Uniform thickness.
8. Thickness: 80 mm.
9. Face size (length x width): 2400 x 1200 mm.
10. Recycled content: 0% (minimum) to BS EN ISO 14021.
11. Edges: Square.
12. Facing: Metal foil laminate.
13. Core: Rigid thermoset fibre-free phenolic insulant core.

25 Insulation to water cisterns / tanks, etc Main Building & Toilet Block

1. Manufacturer: Submit proposals
 - 1.1. Product reference: Submit proposals
2. Material: Glass fibre mat to BS EN 13162
 - 2.1. Recycled content: 25% (minimum) to BS EN ISO 14021
 - 2.2. Thickness: As M&E Specification
3. Installation requirements
 - 3.1. Standard: To BS 5803-5.
 - 3.2. Insulation continuity: Continuous around cistern, with no gaps
 - 3.3. Fixing: Secure, to prevent slumping/ displacement but without undue compression.
 - 3.4. Insulation to lid: Removable with lid; extend over side insulation.

40 Mineral fibre slab insulation Main Building Only - Roof Fire Walls - Insulation fitted in between and to the face of studs

1. Insulation: Rock wool batts to [BS EN 13162](#)
2. Manufacturer: [ROCKWOOL Ltd](#)
 - 2.1. Contact details
 - 2.1.1. Address: ROCKWOOL Ltd
Wern Tarw
Pencoed
Bridgend
United Kingdom
CF35 6NY
 - 2.1.2. Telephone: [+44 \(0\)1656 862621](tel:+441656862621)
 - 2.1.3. Web: <https://www.rockwool.com/uk/>
 - 2.1.4. Email: customersupportcentre@rockwool.com
 - 2.2. Product reference: [NyRock® Cavity Slab 032 \(Thickness 100 mm\)](#)
3. General requirements: Insulation products generally.
4. Standard: To BS EN 13162.
5. Thickness: 100 mm.
6. Facing: Unfaced.
7. Edges: Square.
8. Thermal conductivity (maximum): 0.032 W/mK.
9. Fire performance: To EN 13501-1, Euroclass A1.
10. Sound insulation rating:

11. Thermal resistance: 3.13 m²K/W.
12. Area: 2.18 m².
13. Width: 455 mm.
14. Length: 1200 mm.
15. Vapour resistivity: 5.9 MNs/gm.

42 Insulation slabs fixed to concrete soffit / Gas & Elec Meter cupboard Main Building Only - below plant room

1. Manufacturer: Kingspan
 - 1.1. Product reference: Kooltherm K110 with 6 mm A1 Euroclass building board outer face
2. Material: rigid thermoset phenolic insulation
 - 2.1. Recycled content: Not applicable
 - 2.2. Thickness: 100 mm / 120mm
3. Installation requirements
 - 3.1. Joints: Butted, no gaps. Fit insulation tightly between/ around cladding supports.
 - 3.2. Fasteners: Stainless steel with minimum 70 mm diameter retaining head - refer to installation guides

45 Misc. Insulation Main Building Only

1. Manufacturer: Rockwall or Knauf or Celotex
 - 1.1. Product reference: as recommended by manufacturer
2. Depth: Various - Refer to drawings
3. Installation requirements
 - 3.1. Insulation: Any additional insulation required as shown on drawings
 - 3.2. Service holes: Sealed, and debris removed before laying insulation.
 - 3.3. Electric cables overlaid by insulation: Sized accordingly.

50 Extruded polystyrene (XPS) boards Main Building Only - Below Ground Only

1. Manufacturer: [Kingspan Insulation](#)
 - 1.1. Contact details
 - 1.1.1. Address: Kingspan Insulation Ltd
Pembroke
Leominster
Herefordshire
United Kingdom
HR6 9LA
 - 1.1.2. Telephone: [+44 \(0\)1544 388601](tel:+441544388601)
 - 1.1.3. Web: <https://www.kingspan.com/gb/en-gb>
 - 1.1.4. Email: info@kingspaninsulation.co.uk
 - 1.2. Product reference: [Kingspan GreenGuard GG300 \(Kingspan GreenGuard GG300 Rebated \(R\) - 100 mm\)](#)
2. Standard: To BS EN 13164.
3. Third-party certification: British Board of Agrément (BBA) Certificate.
4. Fire performance: To BS EN 13501-1: 2018, Euroclass RtF F.
5. Compressive strength (minimum) at 10% compression: 300 kPa.
6. Thermal conductivity (maximum): 0.033 W/m·K.

7. Water permeability: Manufacturer's standard.
8. Water vapour permeability: Manufacturer's standard.
9. Thickness: 100 mm.
10. Face size (length x width): 1250 x 600 mm.
11. Facing: Smooth, dense skin.
12. Edges: Rebated.
13. Cross Section: Uniform thickness.
14. Core: Fibre-free rigid extruded polystyrene insulant.

60 Vapour-permeable sheets (Breather Membrane) Main Building Only - Pitched Roof

1. Manufacturer: [DuPont™ Tyvek®](#)
 - 1.1. Contact details
 - 1.1.1. Address: HERE
470 Bath Road,
Arno's Vale,
Bristol
Avon
United Kingdom
BS4 3AP
 - 1.1.2. Telephone: [+44 \(0\) 117 452 9050](tel:+44(0)1174529050)
 - 1.1.3. Web: www.construction.tyvek.co.uk
 - 1.1.4. Email: tyvek.construction@dupont.com
 - 1.2. Product reference: [DuPont™ Tyvek® StructureGuard™](#)
2. Standard: To BS EN 13859-2.
3. Performance characteristics:
4. Class (minimum): W1.
5. Material: Polyethylene.
6. Form: Spun-bonded.
7. Third-party certification: British Board of Agrément (BBA) Certificate.
8. Weight (minimum): 58 g/m².
9. Thickness (minimum): 0.175 mm.
10. Accessories: Tyvek® Acrylic Tape, Tyvek® Butyl Tape, Tyvek® Double Sided Tape, Tyvek® FlexWrap EZ, Tyvek® FlexWrap NF

61 Plastics sheets Main Building & Toilet Block - Concrete Floors

1. Description: To concrete floors
2. Manufacturer: [Novia Ltd](#)
 - 2.1. Contact details
 - 2.1.1. Address: Unit 3 Trilogy
Eurolink V Industrial Park
Sittingbourne
Kent
United Kingdom
ME10 3NH
 - 2.1.2. Telephone: [01795 515 110](tel:01795515110)
 - 2.1.3. Web: <https://www.novia.co.uk>
 - 2.1.4. Email: sales@novia.co.uk

- 2.2. Product reference: [Novia 500 Gauge VirginPoly Vapour Control Layer Polythene](#)
- 3. Material: Virgin grade polythene.
- 4. Purpose: Air-leakage barrier and vapour control layer (AVCL).
- 5. Standard: BS EN 13984.
- 6. Performance characteristics
 - 6.1. Tensile strength (minimum): >13 MD, >13 CD.
 - 6.2. Tear resistance: 70/ 70 N.
 - 6.3. Water vapour resistance (minimum): 51 MNs/g.
 - 6.4. Fire performance: No fire performance
 - 6.5. UV stabilization: N/A.
 - 6.6. Antistatic properties: N/A.
- 7. Physical properties
 - 7.1. Colour: Green.
 - 7.2. Dimensions
 - 7.2.1. Thickness (minimum): 125/ 500 micron/ gauge.
 - 7.2.2. Width (minimum): 2.7 m.
 - 7.2.3. Roll length (minimum): 50 m.
- 8. Recycled content: None – virgin material.
- 9. Weight (minimum): 15.5 kg.
- 10. Nominal weight: 115 g/m².
- 11. Moisture vapour permeability: 0.68 g/m²/d.
- 12. Resistance to water vapour penetration (at 2 kPa): Pass.
- 13. Tape:

62 Plastics sheets Main Building & Toilet Block - Air and vapour control layer

- 1. Manufacturer: [Visqueen](#)
 - 1.1. Contact details
 - 1.1.1. Address: Visqueen
Heanor Gate Industrial Estate
Derbyshire
Heanor
Derbyshire
United Kingdom
DE75 7RG
 - 1.1.2. Telephone: [+44 \(0\) 333 202 6800](tel:+4413332026800)
 - 1.1.3. Web: www.visqueen.com
 - 1.1.4. Email: enquiries@visqueen.com
 - 1.2. Product reference: [Visqueen Vapour Check](#)
- 2. Material: Polyethylene.
- 3. Purpose: Vapour control layer.
- 4. Standard: CE Mark EN 13984:2013.
- 5. Performance characteristics
 - 5.1. Tensile strength (minimum): 13 N/mm².
 - 5.2. Tear resistance: 70 N.
 - 5.3. Elongation to break: 400%.
 - 5.4. Water vapour resistance (minimum): 266 MN·s/g.

6. Physical properties
 - 6.1. Colour: Green.
 - 6.2. Dimensions
 - 6.2.1. Thickness (minimum): 0.125 mm.
 - 6.2.2. Width (minimum):
 - 6.2.3. Roll length (minimum): 50 m.
7. Recycled content: 50%.
8. Accessories:
9. Joint strength: 80 N.

75 Mineral wool fire-stopping Main Building & Toilet Block - Horizontal and Vertical

1. Manufacturer: [ROCKWOOL Ltd](#)
 - 1.1. Contact details
 - 1.1.1. Address: ROCKWOOL Ltd
Wern Tarw
Pencoed
Bridgend
United Kingdom
CF35 6NY
 - 1.1.2. Telephone: [+44 \(0\)1656 862621](tel:+441656862621)
 - 1.1.3. Web: <https://www.rockwool.com/uk/>
 - 1.1.4. Email: customersupportcentre@rockwool.com
 - 1.2. Product reference: SP FireStop OSCB 44 & SP FireStop OSCB 25
2. Standard: Tested and certified in accordance with ASFP Technical Guidance Document TDG19.
3. Fire performance: Min 60mins
4. Material: Mineral wool section, polythene sleeved with continuous intumescent strip fixed to leading edge.
5. Thickness: to 100mm to 200mm cavities
6. Cavity width: 100 / 200mm
7. Air gap: 44 mm.
8. Attachment: as manufacturer's details/specification for bracket system (Clause P10/435)

80 Phenolic foam boards Main Building Only - Ground Floor

1. Manufacturer: [Kingspan Insulation](#)
 - 1.1. Contact details
 - 1.1.1. Address: Kingspan Insulation Ltd
Pembroke
Leominster
Herefordshire
United Kingdom
HR6 9LA
 - 1.1.2. Telephone: [+44 \(0\)1544 388601](tel:+441544388601)
 - 1.1.3. Web: <https://www.kingspan.com/gb/en-gb>
 - 1.1.4. Email: info@kingspaninsulation.co.uk
 - 1.2. Product reference: Kingspan Kooltherm K103 Floorboard
2. Standard: To BS EN 13166.
3. Third party product certification: British Board of Agrément (BBA) certification.

4. Fire performance: Euroclass RtF C-s2,d0 to BS EN 13501-1: 2018.
5. Thermal conductivity (maximum): 0.019 W/m·K.
6. Cross section: Uniform thickness.
7. Thickness: 150mm floor slab & (25mm around perimeter walls).
8. Face size (length x width): 2400 x 1200 mm.
9. Compressive strength (minimum) at 10% compression: 120 kPa.
10. Recycled content: 0% (minimum) to BS EN ISO 14021.
11. Edges: Square.
12. Facing: Glass tissue based facing.
13. Global warming potential: Less than 5.
14. Ozone depletion potential: Zero.
15. Core: Rigid thermoset fibre-free phenolic insulant.
16. Material:
17. Perimeter edge insulation thickness: 20mm x 85mm deep

Ω End of Section

P12

Fire-stopping systems

General

5 Design Main Building & Toilet Block

1. Design: Complete the design of the fire-stopping system.
2. Proposals: Submit drawings, technical information, calculations and manufacturers' literature.

10 Fire-stopping to service penetrations

1. Description: To all individual service penetrations
2. Fire performance: As [clause 17](#)
3. Penetration seal: Submit proposals
 - 3.1. Size: To suit all individual service penetrations
4. Gap sealer: Submit proposals
5. Capping sealant: Submit proposals
 - 5.1. Colour: To match substrate
6. Environmental performance: To be (minimum) BES 6001-certified as 'Very Good'
7. Verification
 - 7.1. Submittals: Specialist subcontractor's design credentials.
 - 7.2. Timing: Four weeks before commencing manufacture

17 Fire performance

1. Description: Compartment Walls / Compartment Floors/Ceilings
2. Resistance to fire: To BS EN 13501-2, EI 60 or better
3. Reaction to fire: To BS EN 13501-1, Class 0
4. Smoke resistance
 - 4.1. Air leakage rate (maximum): 3 m³/m²·h
5. Verification

Products

20 Design life

1. Effective design life: 30 years

30 Product certification

1. Certification: For products specified generically, submit evidence of compliance with the specification For products specified generically, submit evidence of compliance with the specification
2. Acceptable evidence: [British Board of Agrément \(BBA\)](#)-certified / Accreditation by the [United Kingdom Accreditation Service \(UKAS\)](#)

Execution

61 Third-party-certified installers

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

2. Acceptable evidence: [UKAS](#) Certificate of Accreditation

62 Workmanship generally

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

63 Installing flexible intumescent gap sealer

1. **Fitting of strips:** Compress strips and fit into gap, so that, as they decompress the strips wedge themselves in the void.
2. **Shrink-wrapping:** Do not remove
3. **Joints**
 - 3.1. **Ends of strips:** Fit intumescent 'end piece' at both ends of the run of the firestop laminate.
 - 3.2. **Joints between strips:** Fit two intumescent 'end pieces' at each butt joint.

64 Applying intumescent foam

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

65 Applying intumescent mortar

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

66 Installing mineral wool batts

1. **Installing batts:** Fit tight into void between the penetrating services and the surrounding construction to form a solid barrier.
 - 1.1. **Brackets:** As the manufacturer's recommendations
 - 1.1.1. **Bracket fixing:** As the manufacturer's recommendations
2. **Face of batts:** Flush with the surface of wall, floor or soffit
3. **Joints between batts:** Butt joints; seal with fire-resisting sealant Butt joints; seal with fire-resisting sealant
4. **Gaps between services and barrier:** Seal with fire-resisting sealant

67 Applying intumescent putty

1. **Sequence:** Install putty after services are permanently installed.
2. **Loose dust and combustible materials:** Remove from the opening, along with any other debris.
3. **Putty cure:** Do not disturb putty before final set has taken place.

68 Fixing pipe collars

1. Collar fixing: Self-tapping screws, stainless steel
2. Gap around collar: Seal with gap filler and sealant
3. Length of wraps: Project 50 mm from each side of the element

71 Inserting sealant-backing material

1. Preparation: Remove debris from service penetration
2. Installation: Insert joint filler to full depth of joint, leaving sufficient depth to apply sealant

73 Applying sealants generally

1. Application: As [section Z22](#)

74 Applying capping sealant

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

Completion

91 Cleaning

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

92 Inspection

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

Ω End of Section

P20

Unframed isolated trims/ skirtings/ sundry items

To be read with preliminaries/ general conditions.

10 Softwood Skirtings and Architraves Main Building Only

1. Description: To non wet areas (Generally)
2. Quality of wood and fixing: To BS 1186-3.
 - 2.1. Species: Contractor's choice
 - 2.2. Class: 1
3. Moisture content at time of fixing: 9-13%
4. Preservative treatment: Not required
5. Reaction to fire rating: Not applicable
6. Profile: Pencil-rounded
 - 6.1. Finished size: 19 x 95 mm
7. Finish as delivered: Prepared and primed, as section M60
8. Fixing: Adhesive (as section Z20) to back of the skirting board and plugged, screwed and pelleted at Max 600mm centres

15 Softwood Shelving Main Building Only

1. Description: Cupboards (Generally)
2. Quality of wood and fixing: To BS 1186-3.
 - 2.1. Species: Contractor's choice
 - 2.2. Class: 1
3. Moisture content at time of fixing: 9-13%
4. Preservative treatment: Not required
5. Reaction to fire rating: Not applicable
6. Finish as delivered: Prepared and primed, as section M60

35 Medium-density fibreboard Window Cills and Window Reveals Main Building & Toilet Block

1. Description: Window Cill Boards
2. Manufacturer: Contractor's choice
 - 2.1. Product reference: Contractor's choice
3. Standard: To BS EN 622-5.
 - 3.1. Type: MDF
 - 3.2. Formaldehyde class: To BS EN 622-1, class E1.
4. Reaction to fire rating: To BS EN 13501-1, Class A2
5. Thickness: 15/25 mm
6. Edges: Quarter-rounded
7. Finish: Prepared and primed, as section M60
8. Recycled content: 60% (minimum) to BS EN ISO 14021
9. Support/ Fixing: galvanised steel strap fixings to masonry

80 Installation generally

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

Ω End of Section

P21

Door/ window ironmongery

Clauses

Read in conjunction with Preliminaries and general conditions

3 Installing hardware

1. Quantities and locations of ironmongery: In the ironmongery schedule.
2. Fixing: As sections L10 and L20.

5 Ironmongery from single proprietary range

1. Manufacturer: Harbrine Architectural Hardware Services.
27-31, Payne Road, London, E3 2SP.
Tel: 020 8980 8000, fax: 020 8980 6050.
 - 1.1. Product reference: Consult with client and architect product range and submit proposals
2. Principal material/ finish: Brushed Steel, colour Natural
3. Items unavailable within selected range: Submit proposals.

6 Samples

1. General: before placing orders with suppliers submit labelled samples of the following: All main/Key Ironmongery items
 - 1.1. Conformity: Retain samples on site for the duration of the contract. Ensure conformity of ironmongery as delivered with labelled samples.

Ω End of Section

P31

Holes, chases, covers and supports for services

Clauses

10 Holes, recesses and chases in masonry Plastered Walls

1. **Description:** For use on ground floor only - plastered walls only (no chasing to paint faced blockwork)
2. **Standard:** To [BS 7671](#)
3. **Position:** In walls to receive plaster only / To maintain integrity of strength, stability and sound resistance of construction.
 - 3.1. **Parallel chasing:** Offset chases by at least the thickness of the wall they are cut into to ensure chases are not positioned back to back on the same wall.
4. **Holes**
 - 4.1. **Diameter (maximum):** Minimum needed to accommodate services and any required fire stopping
5. **Walls of hollow or cellular masonry units:** Maximum depth of 1/3 masonry unit depth where vertical.
Maximum depth of 1/6 masonry unit depth where horizontal.
6. **Walls of solid masonry units**
 - 6.1. **Vertical chases:** Maximum depth of 1/3 masonry unit depth where vertical.
 - 6.2. **Horizontal or raking chases:** Maximum depth of 1/6 masonry unit depth where horizontal.
7. **Cutting:** Do not cut until mortar is fully set. Cut carefully and neatly. Avoid spalling, cracking and other damage to surrounding structure.
8. **Performance:** Maintain minimum EI 60 fire resistance to be achieved in accordance with EN 13051-2

26 Floor-mounted cable trunking and ducting

1. **Manufacturer:** [Pendock](#)
 - 1.1. **Contact details**
 - 1.1.1. **Address:** Halesfield 19
Telford
Shropshire
TF7 4QT
 - 1.1.2. **Telephone:** +44 (0)1952 580590
 - 1.1.3. **Web:** www.pendock.co.uk
 - 1.1.4. **Email:** sales@pendock.co.uk
 - 1.2. **Product reference:** [MCFDT Multi Compartment Flush Floor Ducting System](#)
2. **Standards:** To BS 2989, class Z2.
3. **Access method:** With tools.
4. **Accessories and fittings**
 - 4.1. **Types:** Corner junctions., Flyover four way length, 1250 mm., Stop ends., Tee junctions, etc
5. **Depth:** 35 mm.
6. **Finish:** Hot dipped galvanized steel tray with plywood cover board.
7. **Width:** 335 mm.
8. **Length:** Tray is 2500 mm and plywood lid is 2440 mm.

30 Pipe sleeves

1. **Description:** fire compartment walls and floors , etc
2. **Material:** Submit proposals
3. **Sleeves:** Extend through full thickness of wall or floor. Position accurately.
 - 3.1. **Clearance around service (maximum):** 20 mm
4. **Performance:** Maintain minimum EI 60 fire resistance to be achieved in accordance with EN 13051-2.

40 Sealing around services

1. **Description:** Fire compartment walls and floors , etc
2. **Service:** Electrical conduits Gas pipes Hot and cold water pipes Soil vent pipes Telecommunications and network cabling Warning/Overflow/Vent pipes Waste pipes, etc
3. **Location:** Pipe sleeves through walls and floors
4. **Sealing material:** Intumescent sealant
5. **Method:** Completely fill gaps with sealant and finish neatly
6. **Requirements:** Prevent the spread of fire
7. **Performance:** *Maintain minimum EI 60 fire resistance to be achieved in accordance with EN 13051-2.*

Ω End of Section

Q50

Site/street furniture/equipment

To be read with preliminaries/ general conditions.

30 Door guards / barrier Main Building & Toilet Block

1. Manufacturer: Broxap
 - 1.1. Product reference: Door Barrier
2. Material: Stainless steel.
 - 2.1. Finish: natural
3. Accessories: Supplied with two flat plate crossbars (top and bottom) / Supplied with rubber buffer as standard.
4. Method of fixing: Rooted, 300 mm below ground, set in concrete bases

32 Stainless steel cycle stands Main Building Only

1. Manufacturer: [Architectural Street Furnishings part of WB White Foundry](#)
 - 1.1. Contact details
 - 1.1.1. Address: Priory Road
Armytage Road
Brighouse
West Yorkshire
HD6 1PY
 - 1.1.2. Telephone: +44 (0)1484 401414
 - 1.1.3. Web: <https://www.asfco.co.uk>
 - 1.1.4. Email: info@asfco.co.uk
 - 1.2. Product reference: [ASF 8000 Stainless Steel/ Steel Cycle Stand](#)
2. Stand type: Cycle.
3. Number of stands: Refer to drawings
4. Base: Base plate fixing. Root base fixing.
5. Finish as delivered: Manufacturer's standard.
6. Frame (tube) diameter: Manufacturer's standard.
7. Overall height: 1050 mm.
8. Height (above ground): 750 mm.
9. Depth: 750 mm.
10. Width: 48.3 mm.
11. Type: Stainless steel, marine grade 1.4401 (316).
12. Accessories: Reflective banding.

70 Preservative treated timber

1. Surfaces exposed by minor cutting and drilling: Treated by immersion or with two flood coats of a solution recommended for the purpose by main treatment solution manufacturer.
2. Heavily worked sections: Re-treat.

80 Concrete foundations generally

1. Standard: To BS 8500-2.
2. Mix: Designated concrete not less than GEN 1 or standard prescribed concrete not less than ST2.
3. Admixtures: Do not use.

4. Foundation holes: Neat vertical sides.
5. Depth of foundations, bedding, haunching: Appropriate to provide adequate support and to receive overlying soft landscape or paving finishes.

85 Setting components in concrete

1. Holes: 250 x 250 x minimum 300 mm deep
2. Components: Accurately positioned and securely supported.
3. Concrete fill: Fully compacted as filling proceeds.
4. Concrete foundations exposed to view: Compacted until air bubbles cease to appear on the upper surface, then weathered to shed water and trowelled smooth.
5. Temporary component support: Maintain undisturbed for minimum 48 hours.

90 Building in to masonry walls

1. Components being built in: Accurately positioned and securely supported. Set in mortar and point neatly to match adjacent walling.
2. Temporary support: Maintain for 48 hours (minimum) and prevent disturbance.

Ω End of Section

R10

Rainwater drainage systems

To be read with preliminaries/ general conditions.

11 Aluminium rainwater pipes and Gutter and fittings Main Building & Toilet Block

1. Standard:
2. Manufacturer: [Alumasc Water Management Solutions](#)
 - 2.1. Contact details
 - 2.1.1. Address: Station Road
Burton Latimer
Kettering
Northamptonshire
NN15 5JP
 - 2.1.2. Telephone: +44 (0)1536 383810
 - 2.1.3. Web: <https://www.alumascwms.co.uk/>
 - 2.1.4. Email: marketing@alumascwms.co.uk
 - 2.2. Product reference: Alumasc Rainwater Guardian Rectangular Pipe box guttering
3. Profile: Rectangle pipes / box gutter
4. Type/ thickness: As manufacturer's standard
5. Nominal size: 100 mm.
6. Finish: Polyester powder coating.
7. Colour: Grey (RAL 7016)
8. Accessories: Leaf guards. Stop ends., all other fittings as required
9. Jointing: flush
10. Fixing: Secret and flush fittings

39 Insulation to internal pipelines Main Building Only

1. Material: Preformed flexible mineral fibre split tube.
2. Thermal conductivity (maximum): 0.045 W/(m·K).
3. Manufacturer: Contractor's choice
 - 3.1. Product reference: Contractor's choice.
4. Recycled content: 25% (minimum) to [BS EN ISO 14021](#).
5. Thickness: 25 mm.

50 Installation generally

1. Electrolytic corrosion: Avoid contact between dissimilar metals where corrosion may occur.
2. Discharge of rainwater: Complete, and without leakage or noise nuisance.
3. Components: Obtain from same manufacturer for each type of pipework and guttering.
4. Allowance for thermal and building movement: Provide and maintain clearance as fixing and jointing proceeds.
5. Fixings and fasteners: As manufacturer's specification and recommendations
6. Protection
 - 6.1. Fit purpose-made temporary caps to prevent ingress of debris.
 - 6.2. Fit access covers, cleaning eyes and blanking plates as the work proceeds.

60 Gutters laid to fall

1. **Setting out:** To true line and even gradient to prevent ponding or backfall. Position high points of gutters as close as practical to the roof and low points not more than 50 mm below the roof.
2. **Joints:** Watertight.
3. **Roofing underlay:** Dressed into gutter.

70 Pipework

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

75 Fixing insulation to internal pipelines and gutters

1. **Fixing:** Secure and neat. Provide continuity at supports and leave no gaps. Fix split pipe insulation with the split on 'blind' side of pipeline.
 - 1.1. **Method:** Mechanical fasteners.
2. **Timing:** Do not fit insulation until completion of pipe airtightness or leakage testing.

80 Internal pipework test – England, Wales, Ireland and Northern Ireland

1. **Preparation:** Temporarily seal open ends of pipework with plugs.
2. **Test apparatus:** Connect a 'U' tube water gauge and air pump to pipework via a plug.
3. **Testing:** Pump air into pipework until gauge registers 38 mm.
4. **Required performance**
 - 4.1. Allow a period for temperature stabilization, after which the pressure of 38 mm is to be maintained without loss for not less than 3 minutes.

92 Gutter test

1. **Preparation:** Temporarily block all outlets.
2. **Testing:** Fill gutters to overflow level and after 5 minutes closely inspect for leakage.

Ω End of Section

Z20

Fixings and adhesives

To be read with preliminaries/ general conditions.

20 General requirements for fixings

1. Materials need to have:
 - 1.1. Atmospheric corrosion resistance appropriate to fixing location.
 - 1.2. Bimetallic corrosion resistance appropriate to items being fixed.
 - 1.3. Fire resistance appropriate to fixing location and application.
 - 1.4. Material safety and data sheets (MSDS).
2. Appearance: Submit samples on request.

21 General requirements for adhesives

1. Adhesives need to have:
 - 1.1. Fire resistance appropriate to location and application.
 - 1.2. Material safety and data sheets (MSDS).

Products - Not Used

Execution

61 Installing fixings generally

1. Preparation: As per manufacturer's instructions.
 - 1.1. Pilot holes: As per manufacturer's instructions.
2. Location: As per manufacturer's instructions.
 - 2.1. Spacing: As per manufacturer's instructions.
3. Installation: As per manufacturer's instructions.
 - 3.1. Appearance: Fixings to be in straight lines at regular centres.
 - 3.2. Setting: As per manufacturer's instructions.
4. Accessories: As required

62 Fixing anchors using chemical anchor cartridges

1. Preparation
 - 1.1. Marking: Mark drill bit length. Mark locations of the anchor fixings on the substrate surface.
 - 1.1.1. Spacing: As per manufacturer's instructions.
 - 1.2. Pilot holes: As per manufacturer's instructions.
2. Installation: Dispense resin to waste until an even colour and then pump into the pilot hole. Insert stud or socket with a twisting action.
 - 2.1. Accessories: As per manufacturer's instructions.
3. Curing:

63 Fixing anchors using chemical anchor capsules

1. Preparation
 - 1.1. Marking: Mark drill bit length. Mark locations of the fixings on the substrate surface
 - 1.1.1. Position: As per manufacturer's instructions.

- 1.2. **Pilot holes:** As per manufacturer's instructions.
2. **Installation:** Place capsule in drill hole. Drive stud through capsule until stud reaches the base of the hole or the depth marker on the stud is reached.
3. **Curing:** Prop anchor to hold in place whilst curing. Allow to cure prior to attaching fixture.

64 Fixing with bolts and bolt assemblies

1. **Preparation**
 - 1.1. **Marking:** Mark drill bit length and position of bolts on the substrate surface.
 - 1.1.1. **Position:** As per manufacturer's instructions.
 - 1.2. **Pilot holes:** As per manufacturer's instructions.
2. **Initial fix:** Set bolt into position. Tighten sufficiently to hold unloaded components – check line and level of components before final tightening.
3. **Torque setting:** Tighten nut to specified torque. Ensure not to damage visible bolt heads.
 - 3.1. **Torque:** As per manufacturer's instructions.
 - 3.2. **Grouting-in:** Fill void around bolt using specified grouting mix. Allow grout to reach the required strength before tightening nuts.
4. **Finishing:** As per manufacturer's instructions.

65 Fixing with nails and screws

1. **Pilot holes:** As per manufacturer's instructions.
2. **Fastener spacing:** As per manufacturer's instructions.
3. **Finished level of fastener head**
 - 3.1. **Exposed:** Flush with surface / Recessed
 - 3.2. **Punched (holes filled or stopped):** Sink minimum 2 mm below surface.

66 Fixing plugs and pellets

1. **Finished level of countersunk fixing head (minimum):** 6 mm below timber surface.
2. **Match grain:** Required
3. **Fit:** Tight
4. **Fixing:** Glue in to full depth of hole.
5. **Finished level:** Flush with surface Flush with surface

69 Installation using powder-actuated fixing systems

1. **Powder-actuated fixing tools:** To BS 4078-2 and Kitemark-certified.
 - 1.1. **Cartridges:** Suitable for use with specified powder-actuated fixing tool
 - 1.2. **Fasteners:** Nails
2. **Installation:** As per manufacturer's instructions.
 - 2.1. **Operatives:** Trained and certified as competent by tool manufacturer.
3. **Post-installation:** Store powder-activated fixing tool and cartridges in safe and dry location.

70 Applying adhesives

1. **Surface preparation:** Dry, clean, and free from oil, grease and other contaminants.
2. **Temporary support and clamping:** Provide as necessary. Do not mark surfaces of or distort components being fixed.
3. **Finished joints:** Fully bonded and free of surplus adhesive.
4. **Other requirements:** As per manufacturer's instructions.

Ω End of Section

Z21 Mortars

Cement gauged mortars

110 Cement gauged mortar mixes

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

120 Sand for site made cement gauged masonry mortars

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

131 Ready-Mixed lime:sand for cement gauged masonry mortars

1. **Standard:** To BS EN 998-2.
2. **Lime:** Nonhydraulic to BS EN 459-1.
 - 2.1. **Type:** CL 90S.
3. **Pigments for coloured mortars:** To BS EN 12878.

135 Site made lime:sand for cement gauged masonry mortars

1. **Permitted use:** Where a special colour is not required and in lieu of factory made ready-mixed material.
2. **Lime:** Nonhydraulic to BS EN 459-1.
 - 2.1. **Type:** CL 90S.
3. **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

1. **Cement:** To BS EN 197-1 and CE marked.
 - 1.1. **Types:** Portland cement, CEM I.
2. Portland limestone cement, CEM II/A-L or CEM II/A-LL.
3. Portland slag cement, CEM II/B-S.
4. Portland fly ash cement, CEM II/B-V.
 - 4.1. **Strength class:** 32.5, 42.5 or 52.5.
5. **White cement:** To BS EN 197-1 and CE marked.
 - 5.1. **Type:** Portland cement, CEM I.
 - 5.2. **Strength class:** 52.5.
6. **Sulfate resisting Portland cement**
 - 6.1. **Types:** To BS EN 197-1 Sulfate resisting Portland cement, CEM I/SR and CE marked.
7. To BS EN 197-1 fly ash cement, CEM II/B-V and CE marked.
 - 7.1. **Strength class:** 32.5, 42.5 or 52.5.

8. Masonry cement: To BS EN 413-1 and CE marked.
 - 8.1. Class: MC 12.5.

180 Admixtures for site made cement gauged mortars

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

190 Retarded ready to use cement gauged masonry mortars

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

210 Making cement gauged mortars

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

Lime:sand mortars

310 Lime:sand mortar mixes

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

320 Sand for lime:sand masonry mortars

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

360 Making lime:sand mortars generally

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

Ω End of Section

Z22 Sealants

Products

310 Epoxy resin-based bonding compounds

1. Description: Generally (Non fire rated)
2. Manufacturer: [Sika Limited](#)
 - 2.1. Contact details
 - 2.1.1. Address: Watchmead
Welwyn Garden City
Hertfordshire
AL7 1BQ
 - 2.1.2. Telephone: [+44 \(0\)1707 394444](tel:+44(0)1707394444)
 - 2.1.3. Web: <https://www.sika.co.uk>
 - 2.1.4. Email: enquiries@uk.sika.com
 - 2.2. Product reference: Submit proposals
3. Primer, backing strip, bond breaker: Types recommended by sealant manufacturer.

315 Epoxy resin-based bonding compounds Fire Rated

1. Description: Generally (Fire rated)
2. Manufacturer: [Sika Limited](#)
 - 2.1. Contact details
 - 2.1.1. Address: Watchmead
Welwyn Garden City
Hertfordshire
AL7 1BQ
 - 2.1.2. Telephone: [+44 \(0\)1707 394444](tel:+44(0)1707394444)
 - 2.1.3. Web: <https://www.sika.co.uk>
 - 2.1.4. Email: enquiries@uk.sika.com
 - 2.2. Product reference: Submit proposals
3. Primer, backing strip, bond breaker: Types recommended by sealant manufacturer.
4. Fire performance
 - 4.1. Fire resistance: Manufacturer's standard
 - 4.2. Reaction to fire (for rateable products): Manufacturer's standard

Execution

610 Suitability of joints

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

620 Preparing joints

1. Surfaces to which sealant must adhere

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

630 Applying sealants

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

Ω End of Section



Specification created using NBS Chorus