1737 Abraham Moss School

06 July 2012

PLANNING AND
BUILDING CONTROL

24 JUL 2012

This document includes:

Code	Section	Revision	Dated
L20	Doors/ shutters/ hatches		

L
Windows/Doors/Stairs

L20
Doors/ shutters/ hatches

L20 Doors/ shutters/ hatches

To be read with Preliminaries/ General conditions.

GENERAL

105 GENERAL

Named Products: The Contractor reserves the right to utilise substitute components of an equivalent, or greater performance standard than specific products named within this specification. All doorsets must be DDA assessed. A full audit highlighting design specifics and DDA compliant solutions to be provided by doorset manufacturer for approval.

Refer to architects drawings and door & Ironmongery Schedules.

Doorset manufacturer to provide sectional and elevation drawings together with door and ironmongery schedules for approval/inclusion upon design finalisation

110 EVIDENCE OF PERFORMANCE

- Certification: Provide independently certified evidence that all incorporated components comply with specified performance requirements.
  - Door Thickness: 44, 54 or 64mm or greater to be established, solid core generally.
  - Full-size doorset construction to have been independently tested to demonstrate achievable service life and durability based on the principles of prEN 12400 incorporating elements of DD171:1987, PAS 23:1999, EN1191, EN1192 and prEN12400:2002. Doorsets to provide severe duty rating.

110A BREEAM VOC REQUIREMENT

- The VOC content of the relevant specified product types will comply with the standards specified below;
  Wood Panels - Particleboard, Fibreboard including MDF, OSB, Cement-bonded particleboard, Plywood, Solid wood panel and acoustic board;
  Authority; BS EN 13986:2002
- Testing; Testing requirement:
  1. BS EN 717-1:2004
  2. BS EN 13999-2:2007 - Volatile Organic Compounds (VOCs)
  3. BS EN 13999-3:2007 - Volatile aldehydes
  4. BS EN 13999-4:2007 - Volatile diisocyanates
  5. BS EN 12149:1997
  6. BS EN ISO 11890-2:2006.

110B BREEAM REQUIREMENT

Global warming potential of insulants used in sandwich panels or other application within window installation;
Performance ; GWP of insulant to be 5 or less.

110C EVIDENCE OF PERFORMANCE SECURED BY DESIGN PERFORMANCE

- Acheiving Secured By Design certification from the GMP's ALU is a Planning Condition. The ALU's Crime Impact Statement required compliance to security standards for the external access/ egress doors.
- Performance: All external access/ egress doors must be door sets and shall be certifeid to PAS 24. Alternatively, the doors shall be certified to LPS 1175 SR2. Any door containing glass must incorporate 9.5mm (min) laminate glass. A certificate for PAS or LPS will be required from the door supplier.

112 TIMBER PROCUREMENT

- Timber (including timber for wood based products): Obtained from well managed forests and/ or plantations in accordance with:
  - The laws governing forest management in the producer country or countries.
  - International agreements such as the Convention on International Trade in Endangered Species of wild fauna and flora (CITES).
- Documentation: Provide either:
  - Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied.
  - Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood based products.

115 FIRE RESISTING DOORS/ DOORSETS/ ASSEMBLIES

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

150A SITE DIMENSIONS

- Procedure: Before starting work on designated items take site dimensions, record on shop drawings and use to ensure accurate fabrication. Doorset manufacturer to fully schedule doorset requirements and to provide Contractor a full set of schedules to allow construction of all openings.
- Designated items:
  All doors, shutters and hatches .

155 ENVIRONMENTAL ISSUES

Supplies to be in accordance with Main Contractor policy and where possible to include independently 3rd party certified sustainable timbers such as by FSC or PEFC. A full audit of materials and source traceability or evidence from a third party environmental scheme to be provided.

170 CONTROL SAMPLES

- Procedure:
  - Finalize component details.
  - Fabricate one of each of the following designated items as part of the quantity required for the project.
  - Obtain approval of appearance and quality before proceeding with manufacture of the remaining quantity.
- Designated items:
  All doors, shutters and hatches.

PRODUCTS

280C DOORS EXTERNAL ALUMINIUM - TYPE 02

- Manufacturer: Kawneer, Astmoor, Runcorn, Cheshire WA7 1QQ. Tel: 01928 502500. Fax: 01928 502501. E-mail: kuk.kawneer@alcoa.com Web: www.kawneer.co.uk.
  - Product reference: 190 Narrow stile door.
- Finish as delivered: All exposed surfaces shall be polyester powder finish in Kawneer Permacover (colour from full available colour range) to B.S. 6496: 1984.
  - Kawneer Permacover colour shall be obtained by first giving all aluminium a full 7 stage chromate conversion coating to achieve maximum exterior durability and carry a 30 year guarantee.
  - minimum film thickness: 60 microns
  - frame section member: RAL 7012 Dark grey
  - door section member: RAL 7035 Light Grey .
  - Glazing details: All as section L40. - Window Performance: Average U-Vlaue 1.9W/m2K area weighted average for whole building .
  - Beading: Extruded clip-in bead with EPDM extruded gaskets - Internally glazed .
- Ironmongery: As ironmongery schedule. To be part of the curtain walling and door package .
- Other requirements: To meet document M approved minimum width; Gearing by specialist; Security beads integrally extruded into all horizontal rails; Double woolpile on all four sides of door leaf; Single action pivot doors; Double glazed; 100mm anti-finger trap door hinge stiles; Concealed overhead closers; 56 or 100mm door lock stile options; Drained DDA compliant threshold; Panic exit device (to emergency escape doors only); To be installed using screws and fixings manufacturered from stainless steel or other corrosion resistant materials; hook and eye to provide hold open facility .
- Airthightness; to clause 695

410 WOOD DOORSETS INTERNAL LAMINATED DOORSETS, FLUSH, NON-FIRE RATED

- Manufacturer: TDSL Manchester.
  - Product reference: T.B.C. -
    - Refer to detail drawings and door schedules
    - Doorset are to be manufactured in accordance with TDSL Q-Mark registered quality scheme
    - Refer to Door and Ironmongery schedules for door grades. All doors designated to be double swing are to be factory fitted with smoke seals as are the meeting stiles of all double leaf doors. All seals to be fitted at works as per TDSL standard procedure .
- Door leaf:
  - Facings: Formica laminate to both faces. See schedules for details. .
  - Lippings: 6mm hardwood to all four edges. - Vision Panels: to be provided on doors as noted on the Door Schedule .
  - Finish as delivered: Primed at factory where appropriate .
- Frame and architraves:
  - Wood species: In accordance with manufacturers recommendations and global assessments and where painted to be formed from primed MDF including stops and architraves .
  - Finish as delivered: Primed at factory where appropriate. The style of frame is to include loose architraves which are to be 19 mm finished thickness in order to accept adjacent skirting. All loose architraves are to be mitred at one end. Door frames to have housed joints with planted 45 x 12mm doorstops. Frames to be one-piece .
- Preservative treatment: Not required .
- Glazing details: L40/250A 6mm toughened single float class A safety glass to comply with TDSL test certificates. Glazing to side panels as indicated on the door schedules. Glass set in FF1 glazing system. Secure with hardwood flush beads supplied as part of the doorset. All beads to be pinned .
  - Beading: Internal .
- Ironmongery: as section P21: Prepared for by TDSL as detailed on TDSL combined door and ironmongery schedule. Hinges supplied and fitted by TDSL (H102 satin) where required Material: Refer to TDSL schedule .
- Perimeter seals: Cold smoke seal to be Lorient batwing IS1212 .
- Other requirements: installation of Safehinge to all Primary School doors.
  - Consult with TDSL for recommendations and details - Moisture content on delivery: 12% + or - 2% .
- Fixing: With screws which are to be countersunk and concealed by loose stops .

410A WOOD DOORSETS INTERNAL LAMINATED DOORSETS, FLUSH, NON-FIRE RATED, AUDIOSPEC 30 or 35 RWdB ACOUSTIC PERFORMANCE

- Manufacturer: TDSL Manchester.
  - Product reference: T.B.C. -
    - Refer to detail drawings and door schedules
    - Doorset are to be manufactured in accordance with TDSL Q-Mark registered quality scheme
    - Refer to Door and Ironmongery schedules for door grades. All doors designated to be double swing are to be factory fitted with smoke seals as are the meeting stiles of all double leaf doors. All seals to be fitted at works as per TDSL standard procedure .
- Door leaf:
  - Facings: Formica laminate to both faces. See schedules for details .
  - Lippings: 6mm hardwood to all four edges. - Vision Panels: to be provided on doors as noted on the Door Schedule .
  - Finish as delivered: Primed at factory where appropriate. .
- Frame and architraves:
  - Wood species: In accordance with manufacturers recommendations and global assessments and where painted to be formed from primed MDF including stops and architraves. .
  - Finish as delivered: Primed at factory where appropriate. The style of frame is to include loose architraves which are to be 19 mm finished thickness in order to accept adjacent skirting. All loose architraves are to be mitred at one end. Door frames to have housed joints with planted 45 x 12mm doorstops. Frames to be one-piece. .
- Preservative treatment: Not required .
- Glazing details: L40/250B Toughened single float class A safety glass to meet 30 & 35 RWdB acoustic performance and to comply with TDSL test certificates. Glazing to side panels as indicated on the schedules. Glass set in FF1 glazing system. Secure with hardwood flush beads supplied as part of the doorset. All beads to be pinned .
  - Beading: Internal
- Ironmongery: as section P21: Prepared for by TDSL as detailed on TDSL combined door and ironmongery schedule. Hinges supplied and fitted by TDSL (H102 satin) where required Material: Refer to TDSL schedule .
- Perimeter seals: Cold smoke seal to be Lorient batwing IS1212 .
- Other requirements: installation of Safehinge to all Primary School doors.
  - Consult with TDSL for recommendations and details
  - Moisture content on delivery: 12% + or - 2% - IS8010 automatic dropseal added to door threshold .
- Fixing: With screws which are to be countersunk and concealed by loose stops .

411 WOOD DOORSETS INTERNAL LAMINATED DOORSETS, FLUSH, FD30s-FIRE RATED

- Manufacturer: TDSL Manchester.
  - Product reference: T.B.C. -
    - Refer to detail drawings and door schedules
    - Doorset are to be manufactured in accordance with TDSL Q-Mark registered quality scheme
    - Refer to Door and Ironmongery schedules for door grades. All doors designated to be double swing are to be factory fitted with combined intumescent and cold smoke seals as are the meeting stiles of all double leaf doors. All seals to be fitted at works as per TDSL standard procedure .
- Door leaf:
  - Facings: Formica laminate to both faces. See schedules for details .
  - Lippings: 6mm hardwood to all four edges. - Vision Panels: to be provided on doors as noted on the Door Schedule .
  - Finish as delivered: Primed at factory where appropriate. .
- Frame and architraves:
  - Wood species: In accordance with manufacturers recommendations and global assessments and where painted to be formed from primed MDF including stops and architraves. .
  - Finish as delivered: Primed at factory where appropriate. The style of frame is to include loose architraves which are to be 19 mm finished thickness in order to accept adjacent skirting. All loose architraves are to be mitred at one end. Door frames to have housed joints with planted 45 x 12mm doorstops. Frames to be one-piece. Combined intumescent and cold smokeseals fitted to frames .
- Preservative treatment: Not required .
- Glazing details: L40/250K Toughened clear specialist fire glass class A safety glass to BS 6206 and to comply with TDSL test certificates. Glazing to side panels as indicated on the schedules. Glass set in FF1 glazing system. Secure with hardwood flush beads supplied as part of the doorset. All beads to be pinned. .
  - Beading: Internal .
- Ironmongery: as section P21: Prepared for by TDSL as detailed on TDSL combined door and ironmongery schedule. All intumescent gaskets as required by global assessments to be supplied by architectural ironmonger. Hinges supplied and fitted by TDSL (H102 satin) where required Material: Refer to TDSL schedule .
- Perimeter seals: installation of Safehinge to all Primary School doors.
  - Consult with TDSL for recommendations and details - Moisture content on delivery: 12% + or - 2% .
- Other requirements: Consult with TDSL for recommendations and details. .
- Fixing: With screws which are to be countersunk and concealed by loose stops .

411A WOOD DOORSETS INTERNAL LAMINATED DOORSETS, FLUSH, FD30s-FIRE RATED, AUDIOSPEC 30 or 35 RWdB ACOUSTIC PERFORMANCE

- Manufacturer: TDSL Manchester.
  - Product reference: T.B.C. -
    - Refer to detail drawings and door schedules
    - Doorset are to be manufactured in accordance with TDSL Q-Mark registered quality scheme
    - Refer to Door and Ironmongery schedules for door grades. All doors designated to be double swing are to be factory fitted with combined intumescent and cold smoke seals as are the meeting stiles of all double leaf doors. All seals to be fitted at works as per TDSL standard procedure .
- Door leaf:
  - Facings: Formica laminate to both faces. See schedules for details .
  - Lippings: 6mm hardwood to all four edges. - Vision Panels: to be provided on doors as noted on the Door Schedule .
  - Finish as delivered: Primed at factory where appropriate. .
- Frame and architraves:
  - Wood species: In accordance with manufacturers recommendations and global assessments and where painted to be formed from primed MDF including stops and architraves. .
  - Finish as delivered: Primed at factory where appropriate. The style of frame is to include loose architraves which are to be 19 mm finished thickness in order to accept adjacent skirting. All loose architraves are to be mitred at one end. Door frames to have housed joints with planted 45 x 12mm doorstops. Frames to be one-piece. Combined intumescent and cold smokeseals fitted to frames .
- Preservative treatment: Not required .
- Glazing details: L40/250K Toughened clear specialist fire glass class A safety glass to BS 6206 to meet 30 & 35 RWdB acoustic performance and to comply with TDSL test certificates. Glazing to side panels as indicated on the schedules. Glass set in FF1 glazing system. Secure with hardwood flush beads supplied as part of the doorset. All beads to be pinned .
  - Beading: Internal
- Ironmongery: as section P21: Prepared for by TDSL as detailed on TDSL combined door and ironmongery schedule. All intumescent gaskets as required by global assessments to be supplied by architectural ironmonger. Hinges supplied and fitted by TDSL (H102 satin) where required Material: Refer to TDSL schedule .
- Perimeter seals: Cold smoke seal to be Lorient batwing IS1212 .
- Other requirements: installation of Safehinge to all Primary School doors
  - Consult with TDSL for recommendations and details
  - Moisture content on delivery: 12% + or - 2% - IS8010 automatic dropseal added to door threshold .
- Fixing: With screws which are to be countersunk and concealed by loose stops .

412 WOOD DOORSETS INTERNAL LAMINATED DOORSETS, FLUSH, FD60s-FIRE RATED

- Manufacturer: TDSL Manchester.
  - Product reference: T.B.C. -
    - Refer to detail drawings and door schedules
    - Doorset are to be manufactured in accordance with TDSL Q-Mark registered quality scheme
    - Refer to Door and Ironmongery schedules for door grades. All doors designated to be double swing are to be factory fitted with combined intumescent and cold smoke seals as are the meeting stiles of all double leaf doors. All seals to be fitted at works as per TDSL standard procedure .
- Door leaf:
  - Facings: Formica laminate to both faces. See schedules for details .
  - Lippings: 6mm hardwood to all four edges. - Vision Panels: to be provided on doors as noted on the Door Schedule .
  - Finish as delivered: Primed at factory where appropriate. .
- Frame and architraves:
  - Wood species: In accordance with manufacturers recommendations and global assessments and where painted to be formed from primed MDF including stops and architraves. .
  - Finish as delivered: Primed at factory where appropriate. The style of frame is to include loose architraves which are to be 19 mm finished thickness in order to accept adjacent skirting. All loose architraves are to be mitred at one end. Door frames to have housed joints with planted 45 x 12mm doorstops. Frames to be one-piece. Combined intumescent and cold smokeseals fitted to frames .
- Preservative treatment: Not required .
- Glazing details: L40/250L 14mm toughened laminated specialist fire glass class A safety glass to BS 6206 to comply with TDSL test certificates. Glazing to side panels as indicated on the schedules. Glass set in Therma-glaze 60 glazing system. Secure with hardwood flush beads supplied as part of the doorset. All beads to be pinned .
  - Beading: Internal
- Ironmongery: as section P21: Prepared for by TDSL as detailed on TDSL combined door and ironmongery schedule. All intumescent gaskets as required by global assessments to be supplied by architectural ironmonger. Hinges supplied and fitted by TDSL (H102 satin) where required Material: Refer to TDSL schedule .
- Perimeter seals: Cold smoke seal to be Lorient batwing IS1212 .
- Other requirements: Installation of Safehinge to all Primary School doors
  - Consult with TDSL for recommendations and details - Moisture content on delivery: 12% + or - 2% .
- Fixing: With screws which are to be countersunk and concealed by loose stops .

470 INTERNAL DOORSETS; DOOR CORE MATERIALS

- TDSL Viscount Special multi-layer particleboard core.

520 SLIDING DOORS EXTERNAL ALUMINIUM - TO PRIMARY SCHOOL AND MANAGEMENT SUITE MAIN ENTRANCES

- Manufacturer: Kawneer, Astmoor, Runcorn, Cheshire WA7 1QQ. Tel: 01928 502500. Fax: 01928 502501. E-mail: kuk.kawneer@alcoa.com Web: www.kawneer.co.uk .
  - Product reference: 350 Dual Moment Welded Corner, Automatic Sliding Front .
- Performance:
  Security: To BS 8220 part 3.The locking system of external doors must be equal to or exceed the strength requirement of BS 3621/98
  Barriers: to BS 7818 and BS 6180
  Safety: All to comply with BS 7036-2, 1996, Safety at Powered Doors for Pedestrian use.
  Thermal: Performance to me Building Regulations .
- Arrangement: Paired leaf top hung .
  - Track system: To be confirmed by Manufacturer .
- Door leaf: Glazed aluminium .
  - Finish as delivered: All exposed surfaces shall be polyester powder finish in Kawneer Permacover (colour from full available colour range) to B.S. 6496: 1984.
    - Kawneer Permacover colour shall be obtained by first giving all aluminium a full 7 stage chromate conversion coating to achieve maximum exterior durability and carry a 30 year guarantee.
    - minimum film thickness: 60 microns
    - frame section member: to match external curtain walling cover cap colour, see section H11 - RAL 7012 Dark Grey.
    - door section member: RAL 7035 Light Grey .
- Operation: Automatic opening. Powered, with constant pressure button control. .
- Ironmongery: As ironmongery schedule. To be part of the curtain walling and door package .
- Other requirements: To meet document M approved minimum width; Gearing by specialist; Vision Panels / glazing as L40; Emergency stops, presence sensors. .

520A SLIDING DOORS INTERNAL ALUMINIUM - TO PRIMARY SCHOOL AND MANAGEMENT SUITE MAIN SECURE ENTRANCE LOBBIES

- Manufacturer: Kawneer, Astmoor, Runcorn, Cheshire WA7 1QQ. Tel: 01928 502500. Fax: 01928 502501. E-mail: kuk.kawneer@alcoa.com Web: www.kawneer.co.uk .
  - Product reference: 350 Dual Moment Welded Corner, Automatic Sliding Front .
- Performance: Thermal performance to meet Building Regulations
  Security: To BS 8220 part 3.The locking system of external doors must be equal to or exceed the strength requirement of BS 3621/98
  Barriers: to BS 7818 and BS 6180
  Safety: All to comply with BS 7036-2, 1996, Safety at Powered Doors for Pedestrian use. .
- Arrangement: Paired leaf top hung .
  - Track system: To be confirmed by Manufacturer .
- Door leaf: Glazed aluminium .
  - Finish as delivered: All exposed surfaces shall be polyester powder finish in Kawneer Permacover (colour from full available colour range) to B.S. 6496: 1984.
    - Kawneer Permacover colour shall be obtained by first giving all aluminium a full 7 stage chromate conversion coating to achieve maximum exterior durability and carry a 30 year guarantee.
    - minimum film thickness: 60 microns
    - frame section member: RAL 7012 Dark Grey
    - door section member: RAL 7035 Light Grey .
- Operation: Access controlled opening. Controlled form Main Reception Desk .
- Ironmongery: As ironmongery schedule. To be part of the curtain walling and door package .
- Other requirements: To meet document M approved minimum width; Gearing by specialist; Vision Panels / glazing as L40; Emergency stops, presence sensors. .

540 SLIDING FOLDING FOLDING PARTITION SYSTEM - GENERALLY

- Manufacturer: Alco Beldan Ltd, Accordial House, 35 Watford Metro Centre, Tolpits Lane, Watford WD18 9XN. Contact: Nick Slater mob 07977981668 .
  - Product reference: NW100 Moveable Wall. Sizes: Refer to architects drawings .
- Performance: Required rated Rw 55db. Weight (TBC) kg/m2. .
- Arrangement:
  Wall element thickness: 100mm maximum.
  Operation: Manually operated.
  Characteristics: A 'tri-block' movable wall consisting of independent top hung full height elements of equal size, made to measure, to suit actual site dimensions. When the wall is closed between fixed abutments it gives the appearance of a solid flush wall, with vertical flash gaps of 5mm.
  Construction: A complete welded and cross braced internal steel frame which is pre-jigged using R.H.S. steel. The internal cavity is filled with fire resistant acoustic insulation. Door elements must incorporate all round retractable seals, operated by a manual single action mechanism.
  Retractable seals at the base of the door leaf automatically by activating a plunger in the stile of the door unit. There should be no threshold, bolts or the like fixed to the floor. NOTE: Doors to achieve high acoustic rating . Pass Door:Not required .
  - Track system: Maintenance free, powder coated to RAL 9010 White.
    Top and Botom Acoustic Seals: Maintenance free spring loaded aluminium retractable acoustic seals, fitted with special flexible sealing extrusions. Special formed interlocking neoprene shoe pieces.
    Sealing pressure 2000N per metre, applied through an adjustable double scissors mechanism, maximum pressure is achieved after three turns.
    Closure Unit: Internally mounted thrust unit extends 100mm. The telescopic panel also includes top and bottom retractable seals along its full extended length.
    Trolleys: Each element is supported by maintenance free, heavy duty, non deforming trolleys. Pre-sealed long life multiple bearing races to each wheel. Parking Position: varies between both one-point suspension Z8 and two point suspension Z1 .
- Door leaf:
  Element Panels: Demountable/replaceable, clean edge 16mm high density (EI/V20) triple layer chipboard
  panels that are acoustically isolated from the internal steel frame. Element Connection: Via exposed interlocking concave/convex extruded satin anodised aluminium edge profiles. Integral magnetic strip provides a tightening torque of 70N per metre, ensuring a fail-safe acoustic sealing between wall elements. .
  - Finish as delivered: Duhospan Melamine f.o.r. .
- Ironmongery: To be supplied as part of the Folding Partition package .
- Other requirements:
  Ceiling/ Floor void, Acoustic Baffle: 50mm galvanised steel studs at 600mm centres. Clad each face with 2 No. 12.5mm non combustible high density plasterboard panels. Slip fixed and infilled with Rockwool slab.
  Up to 1000mm void or direct fix .Any bulkhead requirement by contractor.
  Spread of Flame: Class '3' to BS 476 part 7.
  Durability: DIN standard 310.000-3.79 over 3500 operations
  Shock Impact Quality Assurance: DIN 18032/3 :ISO 9000/9001 .

610 ROLLER SHUTTERS TO KITCHEN/ SERVERY AREA

- Manufacturer: Bolton Gate Company, Waterloo Street, Bolton, BL1 2SP. Tel: 01204 871 001. Fax: 01204 871 049. Email: sales@boltongate.co.uk Web: www.boltongate.co.uk .
  - Product reference: Fireroll E30 Fire Resisting Rolling Shutter. .
- Performance: Fire resistance: 30 mins .
- Arrangement: Vertical rolling shutter .
- Shutter curtain: Galvanised steel - Maximum 3 metres wide in one section - Consult with Bolton Gate Co for recommendations and details. .
  - Finish as delivered: Polyester powder coated finish .
- Frame/ Guides: Galvanised steel - Consult with Bolton Gate Co for recommendations and details .
  - Finish as delivered: Polyester powder coated finish .
- Operation: 24v DC motor from battery supply with 240v single-phase, 50 Hz mains supply. .
- Ironmongery: Consult with Bolton Gate Co for recommendations and details .
- Other requirements: Smoke detectors OR Heat detectors OR Connection to building management system all to be confirmed by M&E Consultant. .

610A ROLLER SHUTTERS [EXTERNAL]
Manufacturer: [Bolton Gate Company, Waterloo Street, Bolton, BL1 2SP. Tel: 01204 871 001. Fax: 01204 871 049. Email: sales@boltongate.co.uk Web: www.boltongate.co.uk] .
- Product reference : Roller Shutter
  Arrangement: [Vertical rolling shutter] .
  Size: [Refer to Architects drawing]
  Shutter curtain: [Galvanised steel - Consult with Bolton Gate Co for recommendations and details.] .
- Finish as delivered: [Polyester powder coated finish - RAL 7012] .
  Frame/ Guides: [Galvanised steel - Consult with Bolton Gate Co for recommendations and details] .
- Finish as delivered: [Polyester powder coated finish - RAL 7012] .
  Operation: [24v DC motor from battery supply with 240v single-phase, 50 Hz mains supply.] .
  Ironmongery: [Consult with Bolton Gate Co for recommendations and details] .

695 AIRTIGHTNESS EPDM FACADE MEMBRANE SEALING TO ALL WINDOWS
- Manufacturer: Adshead Ratcliffe, Adshead Ratcliffe & Co. Ltd. Derby Road, Belper, Derbyshire, DE56 1WJ, Adshead Ratcliffe & Co. Ltd. UK Tel: 01773 826661, Web: www.arbo.co.uk. .
  - Product reference: ARBO EPDM Systems, 0.75mm thickness; Arbo EPDM Facade Membrane or Arbo Facade Membrane BS-1 with addition of Butyl strip for easy application to frame .
- Type: epdm rubber flashing to full perimeter of windows, factory bonded to aluminium frame extrusion, all as manufacturer's current technical detail recommendations .
- Application sequence; cill, jambs, head
- Minimum Overlap; minimum recommended overlap to window - 20mm, minimum recommended overlap to substrate - 100mm
- Finish as delivered: n/a .
- Accessories/Special Features: solvent free adhesives; Arbo SA adhesive, Arbo membrane Adhesive, Arbo Primer 2650 for porous sub-strates .
- Fixing: sealant gun and ARBO roller to improve contact and eliminate air pockets, lap and patch corners where necessary .

EXECUTION

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

711 PROTECTION OF COMPONENTS
Do not fix until rooms are weather tight and the work of wet trades is finished and dried out.

720 MOISTURE CONTENT
During delivery, storage, fixing and thereafter to Practical Completion maintain conditions of temperature and humidity to suit specified moisture content(s) of timber components. When instructed by Contractor, test components with an approved electrical moisture meter used in accordance with manufacturer's recommendations.

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

740 CORROSION PROTECTION
- Surfaces to be protected: As noted on drawing .
- Protective coating: Two coats of bitumen solution to BS 6949 or an approved mastic impregnated tape.
  - Timing of application: Before fixing components.

750 FIXING DOORSETS
- Timing: After associated rooms have been made weathertight and the work of wet trades is finished and dried out.

760 BUILDING IN
- General: Not permitted unless indicated on drawings.

770 DAMP PROOF COURSES ASSOCIATED WITH BUILT IN WOOD FRAMES
- Method of fixing: To backs of frames using galvanized clout nails.

780 DAMP PROOF COURSES IN PREPARED OPENINGS
- Location: Correctly positioned in relation to door frames. Do not displace during fixing operations.

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

800 FIXING OF LOOSE THRESHOLDS
- Spacing of fixings: Maximum 150 mm from each end and at 600 mm maximum centres.

809A FIRE RESISTING DOORS/DOORSETS
- Must be installed by a firm currently listed in the FIRAS Register of Accredited Installers, in accordance with instructions supplied with the product conformity certificate, test report or engineering assessment.

809B INTUMESCENT, SMOKE AND ACOUSTIC SEALS GENERALLY
Manufacturer: Submit Proposals.
- Primarily these will be selected to achieve the required fire rating in compliance with global assessments.
- For most configurations, up to a leaf size of 2055 x 950mm, the seal arrangement will be 1 no 15 x 4mm seal fitted centrally to jambs, heads and meeting stiles for FD30s assemblies and 2 no 15 x 4mm seals (each positioned 5mm from center line) for FD60s assemblies.
- Increased sizes and performances seal configurations as per global assessments.

810A FIRE RESISTING DOORS/DOORSETS
Completely fill gap between sub frames/ frames and wall and reveal with Rockwool mineral wool, or other noncombustible filler in accordance with manufacturer's test data.

820 SEALANT JOINTS
- Sealant:
  - Manufacturer: Adshead Ratcliffe, Derby Road, Belper, Derbyshire, DE56 1WJ. Tel: 01773 826 661. Fax: 01773 821 215. Email: tech@arbo.co.uk Web: www.arbo.co.uk .
    Product reference: Arbosil 1096 silicone sealant
    Filler: Closed cell foam polyethylene rod .
  - Colour: To be confirmed. To match doors .
  - Application: As section Z22 to prepared joints. Triangular fillets finished to a flat or slightly convex profile.

830A FIXING IRONMONGERY GENERALLY

· Assemble and fix carefully and accurately using fasteners supplied by the ironmongery manufacturer, with matching finish and equivalent corrosion resistance.
· Holes for components to be no larger than the minimum required for satisfactory fit/operation.
· Protect ironmongery and adjacent surfaces as necessary to prevent damage.
· At completion, check, adjust and lubricate as necessary to ensure correct functioning of all moving parts.

840 FIXING IRONMONGERY TO FIRE RESISTING DOOR ASSEMBLIES

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

850 LOCATION OF HINGES

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

860 INSTALLATION OF EMERGENCY EXIT DEVICES

- Standard: Unless specified otherwise, install panic bolts/ latches in accordance with BS EN 1125.