CTH-PUR-XXX-SP-09-A-9187

S4 - ISSUED FOR STAGE APPROVAL

24 April 2020

This document includes:

Code	Section	Revision	Dated
L20	Doors/ shutters/ hatches	T02	22 Apr 2020

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L20
Doors/ shutters/ hatches
Revision T02

Section Revision History

No.	Purpose	
T00	ISSUE FOR TENDER	29th Sep 2019
T01	Stage 4	11th Jan 2020
T02		22nd Apr 2020

Clauses amended in Revision T02

No.	Clause	
293	NEW INTERNAL DOOR TYPE RP04 (REPLICA STYLE)	Revised
294	NEW INTERNAL DOOR TYPE RP04-BD (REPLICA STYLE)	Revised
295	NEW INTERNAL DOOR TYPE RP04-SP (REPLICA STYLE)	Revised
611	ROOLER SHUTTERS	Revised

L20 Doors/ shutters/ hatches

To be read with Preliminaries/ General conditions.

GENERAL

109A CLEANING EXISTING EXTERNAL BRONZE DOORS

Refer to Purcell drwgs CTH-PUR-XXX-21-A-3902 describing proposed repairs and associated schedule External Works Repairs - Schedule of Work of proposed repairs, ref.CTH-PUR-XXX-SCH-00-A-3901

- Locations:
  2x pairs of existing doors to Stairs F (Ref. DG.EX-27) and G (Ref. DG.EX-26) on Euston Road.

- The existing doors above is assumed to be in reasonable working order and therefore require in-situ cleaning only.
- After initial cleaning is completed the Conservation Architect can complete an inspection and can verify the door operation and ironmongery and identify the extent of any repairs.
- The cleaning process is not purely for aesthetic reasons, but rather to remove damaging deposits or deteriorating coatings and to check for hidden corrosion.
- Cleaning should remove soot, dust, bird droppings, pollutants, disfiguring stains as well as surface coatings.
- Cleaning also refers to localised removal of active corrosion products.
- Aggresive cleaning methods e.g. air abrasives, lasers or chemical should be avoided with medium-pressure water or high-pressure steam recommended.
- Low-pressure water cleaning can usually be effective, especiallywith the addition of a non-ionic detergent with a neutral pH. The surface should first be wetted with a 1% solution of the detergent in a hand spray; it may be necessary to scrub the surface with medium-stiff natural-bristle brushes.
- After cleaning, surfaces should be rinsed with low-pressure clean water, and the cleaned surface should then be very varefully inspected for active corrosion.
- Ensure all corrosive products, together with loose surface coatings and pollutants are removed.Where necessary slightly more aggresive techniques may be feasible such as solvents applied by hand, high pressure steam, or low-pressure wet abrasive cleaning. Any remaining corrosion products may also require a localised cleaning method such as micro air-abrasion or chelating poultices or by hand with fine stainless steel picks. The requirement for these methods should be agreed with the Conservation Architect.
- It should be established whether an Inappropriate caoting such a black wax or linseed oil is present and this should be removed by high-pressure steam cleaning.
- Areas of limescale should be levered away by hand using wooden or plastic picks and scrapers, avoiding abrasive cleaning.
- For larger areas with smooth or waxed surfaces, high-pressure steam cleaning can be used. Chemical cleaning with buffered acid gels or poultices requires careful application and the area is to be very thoroughly rinsed and neutralised.
- Following cleaning the type of protective coating should be recommended by the metal conservator for agreement by the Conservation Architect e.g. microcrystalline wax coating ('hot waxing' - 4x coats).

109B SEQUENCE OF OPERATIONS

a) Preparation - Clause 109C - 109E
b) Cleaning of bronze doors incl. recording of process - 109A and 109F - 109G
c) Inspection by Conservation Architect and issue of further detail to confirm / clarify scope of works.
d) Repairs - TBC
e) Coating - TBC

109C PREPARATION

- Surfaces not designated for cleaning: Prevent damage, including marking and staining.
  " Openings: Prevent ingress of water, cleaning agents and detritus.
  - Vents and grilles: Seek instructions from Conservation Architect before sealing up / protecting.

109D CONTROL AND DISPOSAL OF WASH WATER AND DETRITUS

- Disposal: Safely. Obtain approvals from relevant Authority.
- Control of wash water: Collect and divert to prevent ingress and damage to building fabric and adjacent areas.
- Above and below ground drainage systems: Keep free from detritus and maintain normal operation.

109E COLD WEATHER

- Cleaning procedures using water: Do not use when air temperature is at or below 5°C. Protect damp surfaces from frost.
- Chemical cleaning agents: Do not use when surface temperatures are below those recommended by manufacturer.

109F CLEANING GENERALLY

- Operatives: Appropriately trained and experienced for each type of cleaning work.
  - Evidence of training: Submit on request.
- Control of cleaning: Confine cleaning processes and materials to designated areas.
  - Prevent wind drift.
    Detritus: Remove regularly. Dispose of safely.
- Monitoring: Frequently check results of cleaning compared to approved trial samples. If results established by trials are not achieved, seek instructions from Conservation Architect.
- Modifications to cleaning methods and materials: Seek instructions from Conservation Architect.

110 EVIDENCE OF PERFORMANCE

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

112 TIMBER PROCUREMENT

- Timber (including timber for wood-based products): Obtained from well-managed forests and/ or plantations in accordance with:
  - The laws governing forest management in the producer country or countries.
  - International agreements such as the Convention on International Trade in Endangered Species of wild fauna and flora (CITES).
- Documentation: Provide either:
  - Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied.
  - Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood-based products.
- Certification scheme: Canadian Standards Association (CSA) or Programme for the Endorsement of Forest Certification (PEFC).
  - Other evidence: UK Timber procurement policy Category B evidence: Completed supply chain information within attached proforma ???.

115 FIRE RESISTING DOORS/ DOOR ASSEMBLIES/ DOORSETS

- Door products: As defined in BS EN 12519.
- 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 or smoke 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.
- Components, assemblies or sets will be marked to the relevant product standard and/ or third party certification rating.

120 NON FIRE RESISTING DOORS/ DOOR ASSEMBLIES/ DOORSETS

- Provide certified evidence, in the form of a product conformity certificate or engineering assessment, that each 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.
- Components and assemblies will be marked to the relevant product standard and/ or third party certification rating.

150 SITE DIMENSIONS

- Procedure: Before starting work on designated items take site dimensions, record on shop drawings and use to ensure accurate fabrication.
- Designated items: Any replacement components or doors.

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: Localised trial sample of cleaning to bronze external doors on Euston Road.

281A INTERNAL DOORS General Specifcation Notes

Referenced documents: [As described below:]:

- The door drawings (architect's 8000 series) are to be read in conjunction with the architect's door types document (CTH-PUR-XXX-SCH-31-A-7113), architect's general arrangement plans, Arup's fire and acoustic strategy (report and drawings) and the Hoare Lea security design package.
- The door drawings and specification must also be read in conjunction with the architect's door schedule (CTH-PUR-XXX-SCH-31-A-7102) which gives specific information on each door including fire requirements, security, accessibility and acoustics.
- The existing door drawings show details of a specific door which represents the door type described in the drawing title block. Width and height dimensions will vary between specific doors which have this door type.
- Dimensions: [Dimensions for each door are given in the door schedule. However, dimensions of doors and openings must be checked on site before new replica items are manufactured. All contractor's proposals and shop drawings are to be approved by architect before manufacture.].
  Statutory / Code / Standard Compliance: [Doors to comply with all relevant codes and standards.].
- Door installation must comply with BS 8300-2:2018 and Approved Document Part M of the Building Regulations with particular attention to opening and closing forces on the doors and the need to properly adjust door closers to achieve compliance.
  Acoustic doors: [Generally]:
- All replica acoustic doorsets should have mechanical drop seals and full perimeter acoustic compression seals which are not interrupted by locks/hinges/closers/other hardware (eg Double batwing seals).
- Double acoustic doorsets should have an overlapping astragal with integral acoustic compression seal between the doors (such that one leaf needs to be opened before the other).
- Rw30 doors should have minimum surface mass 25kg/m2 and Rw35 doors should have minimum surface mass 35kg/m2.
- Integral glazing should at least match the performance of the overall doorset (eg 6mm glazing for Rw30 doorsets and 8.8mm acoustic laminate for Rw35 doors).
- Manifestation: [Not applicable].
- Beading: [Not required].
  Replica doors with a fire rating: [As described below]:
- Where replica doors have a fire resistance requirement noted on the door schedule, a specific design and specification is required which is currently being produced by a specialist fire consultant. This detailed information will be available in due course but is currently the subject to rigorous testing and certification procedures. Replica doors to be designed, tested and certified in accordance with BS EN 1634-1:2008, BS 476 and BS9999.
  Performance specification of replica fire doors: [for pricing purposes]:
- At this stage, for the purposes of pricing replica fire doors please assume that the replica door is as the design of the existing door but including the following features to be supplied and installed:
  - Solid timber construction
  - Use of suitable fire proof fixings and glue to / 281 joints
  - Use of suitable intumescent sealant to joints of raised and fielded panels
  - Use of fire integrity / insulating glazing
  - Use of suitable intumescent glazing gasket for all glazing units
  - Hinges suitable for use in a fire resisting construction
  - Lock suitable for use in a fire door
  - Lever latch suitable for use in a fire door
  - Floor springs suitable for use on a fire door
  - Door head closers suitable for use on a fire door to comply with BS 8300-2:2018 (brass finish)
  - Automatic opener suitable for use on fire door (Assa Abloy SW300)
  - Intumescent strip to edges of door
  - Smoke seal to edges of door (as applicable)
  - Allow for replacement of door frame
  - Allow for a suitable fire resisting PU foam between outside of new door frame and compartment wall. This will depend on the nature of the gap between the wall and frame and the finishes present. For the purposes of costing only, allow for the use of Pyroplex fire rated foam for insulation and integrity tested to EN 1366-4 and BS 476: Part 20:22 with Certfire TS40 and Certfire CF828 approval installed in accordance with manufacturer's instructions.
  - A brass disc engraved with the word "fire door keep shut" must be screwed on to both sides of each door leaf. The location is to be confirmed and approved by the architect and fire consultant.

Other requirements: [As described below]:

- When final fire door designs are produced and testing is complete allow for liasing with the fire specialist to discuss and agree a manufacturing process which will satisfy the certification requirements. Please note that to complete the manufacture of certified fire doors will require oversight from the fire specialist who will need to verify the process of manufacture.
- Where existing architraves are removed to allow for fire proofing around existing door frames to be preserve for reuse.
- Where new architraves are required match existing profile, material, finish and texture.

282 INTERNAL DOORS Removal of Existing Doors and Salvage

For existing doors which are to be removed please allow for the following:

Photographs: [Digitally photograph existing door(s)]:

- Digitally photograph existing door(s) to be removed with one non-shaken photograph on each side of the door, ensuring that the door occupies the entire picture. Catalogue the digital photograph files in a folder named with the existing door number.
- Digital photograph data must be submitted to the architect as an historical record on a: [USB Memory Stick].

Glazing: [Where doors have original copper or leaded framed glazing units, featuring 9 small panes]:

- Before removing door leaves carefully remove the glazed units and wrap in bubble wrap. Package up so as to avoid breakage during transport and storage.
- Label up the packages with the existing door number to make it clear where the units have come from. Label securely so that identification is maintained through the removal, transportation and storage process.
- Transport the units off site as fragile items taking great care to avoid breakage. Place units in safe storage off site away from danger of breakage, moisture and extremes of temperature.
- All removed original glazing units are to be recorded in an inventory listing a description of the unit, glazing finish, and overall sizes. It is intended that all original glazing units will be stored to form a collection that can be cleaned and reused on replica doors which are not fire doors. A digital copy of the inventory must be supplied to the architect upon completion of the removal works.
- Original glazing units are to be carefully cleaned with clean tepid water and very dilute detergent prior to reuse. Do not use aggressive cleaning chemicals or abrasive cleaning agents. Use a soft clean cloth and chamois leather and do not scratch the glass with grit of debris.
- Reuse glazing units on replica fire doors. This will be on a case by case basis and must be agreed with the Architect and Conservation Officer. Discussion will be required to coordinate this.

Door Leaves: [Salvage].

- Label up existing door leaves with original door number (from existing architect's GA drawing) and location. Label securely so that identification is maintained throughout the removal, transportation and storage process.
- Carefully remove existing doors - Do not dispose of: [Transport to safe storage off site].
- Measure the doors in full detail and produce shop drawings to a standard good enough for an accurate replica to be produced from them.
- Make a note of the timber type used.
- Beading: [Nomt required].

The historical record drawing of the door must be submitted to the: [Conservation Officer and Architect in digital AutoCAD .dwg and .pdf format].

Ironmongery generally: [Refer to P21].

Floor Spring Closers: [Refer to P21].

283 REPLICA INTERNAL DOOR TYPES E01A, E02 AND E03A

This specification clause must be read in conjunction with architect's existing internal door drawing number CTH-PUR-XXX-DR-31-A-8000 and NBS clauses: L20 / 281, L20 / 282, P21 / 190, P21 / 451, P21 / 471, P21 / 490 as applicable.

- This specification clause is for the construction of replica doors that have no fire requirement. If door has fire requirement see the clauses listed above.
  Generally replicate the existing door and frame after surveying it on site.
- The drawing indicates the general details of the existing door type but must not be used as a fabrication drawing.
- The contractor must use its expertise to produce accurate shop drawings.
  Material: To match existing (typically Oak)
  Panel: Solid timber raised and fielded with moulding to match existing.
  Finish: To match existing colour and texture as closely as possible.
- Allow for 6 samples of 200mm x 200mm Oak panel to be stained and varnished to enable colour and texture of existing to be matched.
- In the first instance, produce two samples and notify the architect when complete to arrange inspection.
- After inspection further samples may be required to achieve the closest match possible.
  Glazing: Use salvaged copper framed, 9 pane glazing units from existing doors where they are available.
  Provide alternative price for a set of new replica copper lights for use where salvaged copper lights are no longer extant in original door.
- These are available to order from specialist manufacturers such as Cheam Leaded Lights Limited.
- New units should use safety glass in accordance with BS 6262: Part 4: 1994 but with consideration of the historic nature of the building with regard to dispensation for visible markings.
  (https://www.cheamleadedlights.com/copper-lights/)
  Action: Door to swing in two directions.
  For ironmongery and operation refer to NBS clause P21 / 191.

284 REPLICA INTERNAL DOOR TYPES E04

This specification clause must be read in conjunction with architect's existing internal door drawing number CTH-PUR-XXX-DR-31-A-8006 and NBS clauses: L20 / 281, L20 / 282, P21 / 190, P21 / 451, P21 / 471, P21 / 490 as applicable.

- This specification clause is for the construction of replica doors that have no fire requirement. If door has fire requirement see the clauses listed above.
  Generally replicate the existing door after surveying it on site.
- The drawing indicates the general details of the existing door type but must not be used as a fabrication drawing.
- The contractor must use its expertise to produce accurate shop drawings.
  Material: To match existing (typically Oak)
  Panel: Solid timber raised and fielded with moulding to match existing.
  Finish: To match existing colour and texture as closely as possible.
- Allow for 6 samples of 200mm x 200mm Oak panel to be stained and varnished to enable colour and texture of existing to be matched.
- In the first instance, produce two samples and notify the architect when complete to arrange inspection. After inspection further samples may be required to achieve the closest match possible.
  Glazing: Obscured with the original pattern on existing original glazing. To be toughened glass in accordance with BS 6262: Part 4: 1994.
  Action: Door opens in one direction only.
  For ironmongery and operation refer to NBS clause P21 / 192.

285 REPLICA INTERNAL DOOR TYPES E07

This specification clause must be read in conjunction with architect's existing internal door drawing number CTH-PUR-XXX-DR-31-A-8007 and NBS clauses: L20 / 281, L20 / 282, P21 / 190, P21 / 451, P21 / 471, P21 / 490 as applicable.

- This specification clause is for the construction of replica doors that have no fire requirement. If door has fire requirement see the clauses listed above.
  Generally replicate the existing door and frame after surveying it on site.
- The drawing indicates the general details of the existing door type but must not be used as a fabrication drawing.
- The contractor must use its expertise to produce accurate shop drawings.
  Material: To match existing (typically Oak)
  Panel: Solid timber raised and fielded with moulding to match existing.
  Finish: To match existing colour and texture as closely as possible.
- Allow for 6 samples of 200mm x 200mm Oak panel to be stained and varnished to enable colour and texture of existing to be matched.
- In the first instance, produce two samples and notify the architect when complete to arrange inspection.
- After inspection further samples may be required to achieve the closest match possible.
  Action: Door opens in one direction only.
  For ironmongery and operation refer to NBS clause P21 / 193.

286 REPLICA INTERNAL DOOR TYPES E06

This specification clause must be read in conjunction with architect's existing internal door drawing number CTH-PUR-XXX-DR-31-A-8008 and NBS clause: L20 / 281, L20 / 282, P21 / 190, P21 / 451, P21 / 471, P21 / 490 as applicable.

- This specification clauses is for the construction of replica doors that have no fire requirement. If door has fire requirement see the clauses listed above.
  Generally replicate the existing door and frame after surveying it on site.
- The drawing indicates the general details of the existing door type but must not be used as a fabrication drawing.
- The contractor must use its expertise to produce accurate shop drawings.
  Material: To match existing (typically Oak)
  Panels: Solid timber raised and fielded with moulding to match existing.
  Finish: To match existing colour and texture as closely as possible.
- Allow for 6 samples of 200mm x 200mm Oak panel to be stained and varnished to enable colour and texture of existing to be matched.
- In the first instance, produce two samples and notify the architect when complete to arrange inspection.
- After inspection further samples may be required to achieve the closest match possible.
  Action: Door opens in one direction only.
  For ironmongery and operation refer to NBS clause P21 / 194.

287 REPLICA INTERNAL DOOR TYPES E09

This specification clause must be read in conjunction with architect's existing internal door drawing number CTH-PUR-XXX-DR-31-A-8011 and NBS clauses: L20 / 281, L20 / 282, P21 / 190, P21 / 451, P21 / 471, P21 / 490 as applicable.

- This specification clause is for the construction of replica doors that have no fire requirement. If door has fire requirement see the clauses listed above.
  Generally replicate the existing door after surveying it on site.
  -The drawing indicates the general details of the existing door type but must not be used as a fabrication drawing.
- The contractor must use its expertise to produce accurate shop drawings.
  Material: To match existing
  Finish: To match existing colour and texture as closely as possible.
- Allow for 6 samples of 200mm x 200mm Oak panel to be stained and varnished to enable colour and texture of existing to be matched.
- In the first instance, produce two samples and notify the architect when complete to arrange inspection.
- After inspection further samples may be required to achieve the closest match possible.
  Glazing: Use salvaged copper framed, 9 pane glazing unit from existing doors where they are available.
  Provide alternative price for a new replica copper light.
- This is available to order from specialist manufacturers such as Cheam Leaded Lights Limited.
- New units should use safety glass in accordance with BS 6262: Part 4: 1994 but with consideration of the historic nature of the building with regard to dispensation for visible markings.
  (https://www.cheamleadedlights.com/copper-lights/)
  Action: Door opens in one direction only.
  For ironmongery and operation refer to NBS clause P21 / 195.

288 REPLICA INTERNAL DOOR TYPES E12

This specification clause must be read in conjunction with architect's existing internal door drawing number CTH-PUR-XXX-DR-31-A-8014 and NBS clauses: L20 / 281, L20 / 282, P21 / 190, P21 / 451, P21 / 471, P21 / 490 as applicable.

- This specification clause is for the construction of replica doors that have no fire requirement. If door has fire requirement see the clauses listed above.
  Generally replicate the existing door after surveying it on site.
- The drawing indicates the general details of the existing door type but must not be used as a fabrication drawing.
- The contractor must use its expertise to produce accurate shop drawings.
  Material: To match existing
  Finish: To match existing colour and texture as closely as possible.
- Allow for 6 samples of 200mm x 200mm Oak panel to be stained and varnished to enable colour and texture of existing to be matched.
- In the first instance, produce two samples and notify the architect when complete to arrange inspection.
- After inspection further samples may be required to achieve the closest match possible.
  Glazing: Clear glazing. To be toughened glass in accordance with BS 6262: Part 4: 1994.
  Action: Door to swing in two directions
  Door Handles: to match original brass pull handles. Refurbish existing and reuse if possible. In the event of salvage being impossible a replica will be required.
  For ironmongery and operation refer to NBS clause P21 / 196.

289 REPLICA INTERNAL DOOR TYPES E16

This specification clause must be read in conjunction with architect's existing internal door drawing number CTH-PUR-XXX-DR-31-A-8018 and NBS clauses: L20 / 281, L20 / 282, P21 / 190, P21 / 451, P21 / 471, P21 / 490 as applicable.

- This specification clause is for the construction of replica doors that have no fire requirement. If door has fire requirement see the clauses listed above.
  Generally replicate the existing door after surveying it on site.
- The drawing indicates the general details of the existing door type but must not be used as a fabrication drawing.
- The contractor must use its expertise to produce accurate shop drawings.
  Material: To match existing
  Panel: Solid timber raised and fielded with moulding to match existing.
  Finish: To match existing colour and texture as closely as possible.
- Allow for 6 samples of 200mm x 200mm Oak panel to be stained and varnished to enable colour and texture of existing to be matched.
- In the first instance, produce two samples and notify the architect when complete to arrange inspection.
- After inspection further samples may be required to achieve the closest match possible.
  Action: Door opens in one direction only.
  For ironmongery and operation refer to NBS clause P21 / 197.

290 REPLICA INTERNAL DOOR TYPES E21

This specification clause must be read in conjunction with architect's existing internal door drawing number CTH-PUR-XXX-DR-31-A-8023 and NBS clauses: L20 / 281, L20 / 282, P21 / 190, P21 / 451, P21 / 471, P21 / 490 as applicable.
All doors with this type must be replicated with an FD60 rating - see NBS clauses listed above.
Material: To match existing
Panel: Solid timber raised and fielded with moulding to match existing.
Finish: To match existing colour and texture as closely as possible.

- Allow for 6 samples of 200mm x 200mm Oak panel to be stained and varnished to enable colour and texture of existing to be matched.
- In the first instance, produce two samples and notify the architect when complete to arrange inspection.
- After inspection further samples may be required to achieve the closest match possible.
- Action: Door opens in one direction only.
  For ironmongery and operation refer to NBS clause P21 / 198.

291 REPLICA INTERNAL DOOR TYPE RW01 (REPLICA STYLE)

This specification clause must be read in conjunction with architect's existing internal door drawing number CTH-PUR-XXX-DR-31-A-8031 and NBS clauses: L20 / 281, L20 / 282, P21 / 190, P21 / 451, P21 / 471, P21 / 490 as applicable.

- This specification clause is for the construction of new 'replica style' doors that have no fire requirement. If door has fire requirement see the clauses listed above.
- The drawing indicates the general details of the new door type but must not be used as a fabrication drawing.
- The contractor must use its expertise to produce accurate shop drawings.
  Material: To match existing doors of a similar type (typically Oak).
  Panel: Solid timber raised and fielded with moulding as shown in drawing.
  Finish: To match colour and texture of existing similar door types (such as E01A) as closely as possible.
- Allow for 6 samples of 200mm x 200mm Oak panel to be stained and varnished to enable colour and texture of existing to be matched.
- In the first instance, produce two samples and notify the architect when complete to arrange inspection.
- After inspection further samples may be required to achieve the closest match possible.
  Glazing: Use salvaged copper framed, 9 pane glazing units from existing doors where they are available.
  Provide alternative price for a set of new replica copper lights to match existing similar style doors.
- These are available to order from specialist manufacturers such as Cheam Leaded Lights Limited.
- New units should use safety glass in accordance with BS 6262: Part 4: 1994 but with consideration of the historic nature of the building with regard to dispensation for visible markings.
  (https://www.cheamleadedlights.com/copper-lights/)
  Action: Doors to swing in one direction.
  For ironmongery and operation refer to NBS clause P21 / 199.

292 REPLICA INTERNAL DOOR TYPE RWP01 (REPLICA STYLE)

This specification clause must be read in conjunction with architect's existing internal door drawing number CTH-PUR-XXX-DR-31-A-8032 and NBS clauses: L20 / 281, L20 / 282, P21 / 190, P21 / 451, P21 / 471, P21 / 490 as applicable.

- This specification clause is for the construction of new 'replica style' doors that have no fire requirement. If door has fire requirement see the clauses listed above.
- The drawing indicates the general details of the new door type but must not be used as a fabrication drawing. The contractor must use its expertise to produce accurate shop drawings.
  Material: To match existing doors of a similar type (typically Oak).
  Lower Panels: Solid timber raised and fielded with moulding as shown in drawing.
  Upper Panels: 8 oak veneered ply panels to each door leaf which mimic the glazed panels on similar door types such as E01A.
  Finish: To match colour and texture of existing similar door types (such as E01A) as closely as possible.
- Allow for 6 samples of 200mm x 200mm Oak panel to be stained and varnished to enable colour and texture of existing to be matched.
- In the first instance, produce two samples and notify the architect when complete to arrange inspection.
- After inspection further samples may be required to achieve the closest match possible.
  Glazing: This is not a glazed door.
  Action: Doors to swing in one direction.
  For ironmongery and operation refer to NBS clause P21 / 200.

293 NEW INTERNAL DOOR TYPE RP04 (REPLICA STYLE)

This specification clause must be read in conjunction with architect's existing internal door drawing number CTH-PUR-XXX-DR-31-A-8033 and NBS clauses: L20 / 281, L20 / 282, P21 / 190, P21 / 451, P21 / 471, P21 / 490 as applicable.

- This specification clause is for the construction of new 'replica style' doors that have no fire requirement. If door has fire requirement see the clauses listed above.
- The drawing indicates the general details of the new door type but must not be used as a fabrication drawing. The contractor must use its expertise to produce accurate shop drawings.
  Material: To match existing doors of a similar type (typically Oak).
  Lower Panels: Solid timber raised and fielded with moulding as shown in drawing.
  Upper Panels: 9 oak veneered ply panels to each door leaf which mimic the glazed panels on similar door types such as E04.
  Finish: To match colour and texture of existing similar door types (such as E04) as closely as possible.
- Allow for 6 samples of 200mm x 200mm Oak panel to be stained and varnished to enable colour and texture of existing to be matched.
- In the first instance, produce two samples and notify the architect when complete to arrange inspection.
- After inspection further samples may be required to achieve the closest match possible.
  Glazing: This is not a glazed door.
  Action: Doors to swings in one direction.
  For ironmongery and operation refer to NBS clause P21 / 201.

(Revised - L20 revision T02 - 22nd Apr 2020)

294 NEW INTERNAL DOOR TYPE RP04-BD (REPLICA STYLE)

This specification clause must be read in conjunction with architect's existing internal door drawing number CTH-PUR-XXX-DR-31-A-8035 and NBS clauses: L20 / 281, L20 / 282, P21 / 190, P21 / 451, P21 / 471, P21 / 490 as applicable.

- This specification clause is for the construction of new 'replica style' doors that have no fire requirement. If door has fire requirement see the clauses listed above.
- The drawing indicates the general details of the new door type but must not be used as a fabrication drawing.
- The contractor must use its expertise to produce accurate shop drawings.
- Opening size can only be know when existing door is removed.
- This door is for disabled access and must have a clear width of at least 840mm.
  Material: To match existing doors of a similar type (typically Oak).
  Lower Panels: Solid timber raised and fielded with moulding as shown in drawing.
  Upper Panels: 9 oak veneered ply panels to each door leaf which mimic the glazed panels on similar door types such as E04.
  Finish: To match colour and texture of existing similar door types (such as E04) as closely as possible.
- Allow for 6 samples of 200mm x 200mm Oak panel to be stained and varnished to enable colour and texture of existing to be matched.
- In the first instance, produce two samples and notify the architect when complete to arrange inspection.
- After inspection further samples may be required to achieve the closest match possible.
  Glazing: This is not a glazed door.
  Action: Door to swing into WC under normal operation but have ability to open outward into corridor in the event of an emergency with a release mechanism and pivot hinge (see below for details).
  For ironmongery and operation refer to NBS clause P21 / 202.

(Revised - L20 revision T02 - 22nd Apr 2020)

295 NEW INTERNAL DOOR TYPE RP04-SP (REPLICA STYLE)

This specification clause must be read in conjunction with architect's existing internal door drawing number CTH-PUR-XXX-DR-31-A-8036 and NBS clauses: L20 / 281, L20 / 282, P21 / 190, P21 / 451, P21 / 471, P21 / 490 as applicable.

- This specification clause is for the construction of new 'replica style' doors that have no fire requirement. If door has fire requirement see the clauses listed above.
- The drawing indicates the general details of the new door type but must not be used as a fabrication drawing. The contractor must use its expertise to produce accurate shop drawings.
  Material: To match existing doors of a similar type (typically Oak).
  Lower Panels: Solid timber raised and fielded with moulding as shown in drawing.
  Upper Panels: 9 oak veneered ply panels to each door leaf which mimic the glazed panels on similar door types such as E04.
  Side panels: Solid timber raised and fielded with moulding as shown in drawing.
  Finish: To match colour and texture of existing similar door types (such as E04) as closely as possible.
- Allow for 6 samples of 200mm x 200mm Oak panel to be stained and varnished to enable colour and texture of existing to be matched.
- In the first instance, produce two samples and notify the architect when complete to arrange inspection.
- After inspection further samples may be required to achieve the closest match possible.
  Glazing: This is not a glazed door.
  Action: Door to swing in one direction.
  For ironmongery and operation refer to NBS clause P21 / 203.

(Revised - L20 revision T02 - 22nd Apr 2020)

441A NEW WOOD DOORSETS INTERNAL

This specification clause must be read in conjunction with the architect's proposed internal door drawings (listed below) which outline the different configurations of doorsets required (all from the Assa Abloy SMARTec product range). These drawings categorise the different door configurations into types which are referred to on the architect's door schedule (CTH-PUR-XXX-SCH-31-A-7102) and Door Types document (CTH-PUR-XXX-SCH-31-A-7113).

List of Proposed Internal Door Drawings:

- Drawing Number: CTH-PUR-XXX-DR-31-A-8050 (Type: N01 - WC Cubicle)
- Drawing Number: CTH-PUR-XXX-DR-31-A-8051 (Type: N02 - Double Door with Vision Panels)
- Drawing Number: CTH-PUR-XXX-DR-31-A-8052 (Type: N03 - Single Door with Vision Panel)
- Drawing Number: CTH-PUR-XXX-DR-31-A-8053 (Type: N04 - Single Door with no Vision Panel - Main WC Door)
- Drawing Number: CTH-PUR-XXX-DR-31-A-8054 (Type: N05 - Single Door with no Vision Panel)
- Drawing Number: CTH-PUR-XXX-DR-31-A-8055 (Type: N06 - Double Flush Cupboard Door)
- Drawing Number: CTH-PUR-XXX-DR-31-A-8056 (Type: N07 - Disabled WC Door)
- Drawing Number: CTH-PUR-XXX-DR-31-A-8057 (Type: N08 - Double Door with no Vision Panels)
- Drawing Number: CTH-PUR-XXX-DR-31-A-8058 (Type: N09 - Door and a Half with one Vision Panel)
- Drawing Number: CTH-PUR-XXX-DR-31-A-8059 (New Door Typical Interface Details)
- Drawing Number: CTH-PUR-XXX-DR-31-A-8060 (Type: N04 - Single Riser Door)

  Refer to door schedule (CTH-PUR-XXX-SCH-31-A-7102) for performance requirements including fire performance, security, accessibility, acoustic performance and size information.

  This specification clause must be read in conjunction with NBS clauses: L20 / 281, L20 / 282, P21 / 190, P21 / 451, P21 / 471, P21 / 490 as applicable.

  Manufacturer: [Assa Abloy].
- Product reference: [All doors to be SMARTec].

  Door leaf: SMARTec Standard

  Core: [SMARTec Standard].

  Thickness: [SMARTec Standard].

  Finish as delivered: [Full factory finish (Colour to be confirmed and approved)].

  Frame and architraves:
- Type: [See drawing CTH-PUR-XXX-DR-31-A-8059 (To be confirmed and approved)].

  Wood species: [SMARTec Standard].

  Finish as delivered: [Full factory finish].

  Ironmongery: [Refer to NBS Section P21 where ironmongery for each door is listed].

  Perimeter seals: [Fire and acoustic as applicable].

610A ROLLER SHUTTERS/ CURTAINS **Judd Street Entrance**

- Manufacturer: Roller Shutter Insureguard Range SR2, SR3, SR4

  " Manufacturer: HAG Ltd. - The Door Specialists

  Web: www.hag.co.uk

  Email: info@hag.co.uk

  Tel: +44 (0)800 072 3444

  Fax: +44 (0)117 965 7773

  Address: 1 Oak Lane, Fishponds, Bristol BS5 7UY

  " Product reference: Roller Shutter Insureguard Range SR4

  " Size: AS Per Detail - 6010

  " Colour/ Finish: Polyester powder-coated, BS 4800 /Polyester powder-coated, RAL 7015 - SLATE GREY

  " Fixing: Face .

611 ROOLER SHUTTERS

- Manufacturer: Coopers Fire Ltd
  Web: www.coopersfire.com
  Email: info@coopersfire.com
  Tel: +44 (0)23 9245 4405
  Fax: +44 (0)23 9249 2732
  Address: Edward House, Penner Road, Havant, Hampshire PO9 1QZ
- Product reference: FireMaster® A1 /FireMaster® A1 (S) or similar to achieve minum 30 Min FR
- Size: Site Dm - refer to drawings - cover full width
- Extras: None /Beam protection and obstruction warning /Emergency retract /Split drop delay /Visual alert system /Voice warning
  (Revised - L20 revision T02 - 22nd Apr 2020)

EXECUTION

710 PROTECTION OF COMPONENTS

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

730 PRIMING/ SEALING

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

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.

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

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

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

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

830 FIXING IRONMONGERY GENERALLY

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

840 FIXING IRONMONGERY TO FIRE RESISTING DOOR ASSEMBLIES

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

860 INSTALLATION OF EMERGENCY EXIT DEVICES

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