



OUR TOWN HALL
Z10 NBS SPECIFICATION
PURPOSE MADE JOINERY

Document reference: OTH-PUR-TH-ZZ-SPE-A-5940

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Issue:01



CLAUSE SUFFIX LETTERS

This Purcell Specification is based upon the National Building Specification (NBS). The Contractor's attention is drawn to the suffix letters **A**, **B** and ***** that occur after some of the clause numbers in the work sections.

These suffix letters are used as follows:

- ☐ ***** is used for a new clause, not found in the NBS
- ☐ **A** is used for an NBS clause which has been altered in the Purcell Standard Specification.
- ☐ **B** is used for a new clause in this particular Job Specification or against an existing clause from the Purcell Standard Specification amended for this project.

No liability is accepted for the incorrect application of this convention in this Specification.

Rev	By	Description	Date	Authorised
-	DW	FOR TENDER	24/07/2020	NM
01	SB	FOR TENDER	07/08/2020	NM

OTH NBS Specification

07 August 2020

Table of Contents

Title		Page
Z10	Purpose made joinery	4

Z10

Purpose made joinery

Z10 Purpose made joinery

To be read with Preliminaries/ General conditions.

12 SHOP DRAWINGS FOR NEW PURPOSE-MADE JOINERY:

- Submit to the CA fully detailed drawings for comment. The Contractor shall submit electronic copies of drawings showing all necessary construction, fabrication and installation details in accordance with the designs issued by the Architect.
Drawings shall show:
 - Arrangement of components
 - Setting out dimensions of each component type.
 - All fixing methods, anchorages and dimensions.
 - General thicknesses, tolerances and setting out dimensions.
 - Finishes
 - The design, production and shop drawings submitted by the Contractor will be assessed as follows:
 - a) No Comment (Status A): Fabrication, manufacture or construction may proceed in accordance with the drawings submitted.
 - b) Comment (Status B): Fabrication, manufacture or construction may proceed subject to the comments made by the Consultant. The contractor shall resubmit the drawings for record purposes, taking into account the comments made by the Consultant.
 - c) Comment (Status C): No work shall be fabricated, manufactured or constructed. The Contractor shall resubmit new drawings to the Consultant for review. Any submission marked 'C' shall not be permitted on the site, or in any production workshop.
- * Comments on the returned drawings shall in no way release the Contractor from responsibilities and obligations under the Contract or separate design warranties. Where the Contractor is of the opinion that compliance with any comments by the Consultant will be detrimental to the strength, stability or suitability for the purpose of the product, the Contractor shall inform the Consultant in writing to that effect.

101* TIMBER GENERALLY

- Ensure temperate, boreal and tropical forests softwoods and hardwoods comply with European Community Regulations 3626/86.

102* TIMBER CERTIFICATION

- Requirements for all timbers and timber based products.
Ensure all supplies of timber and timber based products (including those used for temporary works) conform to the specified certification standard listed below:
- A FSC (refer to clause 103*) – All tropical hardwoods, all non-European sourced temperate hardwoods (e.g. North American sourced Oak and Walnut), all non-European sourced softwoods (e.g. North American sourced Western Red Cedar), Plywood (except where formed from Birch or Douglas Fir)
- B PEFC (refer to clause 104*) – All European sourced softwoods (White Wood, Deal, Douglas Fir, Larch, Yew etc.), European sourced hardwoods not listed under D (Oak (European), Birch, Maple etc).
- C Timber of known origin (refer to clause 105*) – Orientated Strand Board (to be of European or North American source), Chipboard (to be of European or North American source)
- D No certification requirement – Beach, Ash, Willow, Cherry (and other temperate fruit woods), MDF

103* TIMBER CERTIFICATION FSC (Forest Stewardship Council)

- A Ensure specified type of timber or timber based products have undergone evaluation, accreditation and monitoring based on the principles for good forest management established by The Forest Stewardship Council (FSC) carried out by the FSC.
- B Provide evidence to the CA for review on request.

104* TIMBER CERTIFICATION PEFC (Pan European Forest Certification)

- A Ensure specified type of timber or timber based products are sourced from sustainable managed forests controlled by a national forest certification scheme assessed and recognised by the PEFC council.
- B Provide evidence to the CA for review on request

105* TIMBER CERTIFICATION Timber of known origin

- A Ensure specified type of timber or timber based products are sourced from a known country or region.
- B Provide documentary evidence(which has been or can be independently verified) regarding the provenance of all timber supplied, to the CA for review on request

106* ENDANGERED SPECIES

- A Ensure all suppliers of timber are not wood species that are included in the current editions of Appendix I and II of the Convention on International Trade in Endangered Species (CITES).
- B For detailed current information contact:
Department of the Environment, UK CITES Management Authority,
Tel: 0117 987 8000.

110 FABRICATION

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

111 PURPOSE MADE JOINERY FOR PERIMETER BOXING TYPE 1, 2, 3 & 9

- TYPE 1,2,3 & 9: Refer to drawings for dimension details_ OTH-PUR-TH-ZZ-DWG-A-5920 (type 1), OTH-PUR-TH-ZZ-DWG-A-5921 (Type 2), OTH-PUR-TH-ZZ-DWG-A-5922 (Type 3)
 - Location Room - Refer to location drawings_ OTH-PUR-TH-GF-DWG-A-0601, OTH-PUR-TH-01-DWG-A-0602, OTH-PUR-TH-02-DWG-A-0603, OTH-PUR-TH-03-DWG-A-0604, OTH-PUR-TH-04-DWG-A-0605, OTH-PUR-TH-05-DWG-A-0606, OTH-PUR-TH-06-DWG-A-0607.
 - Skeletal frame Unistrut as per clause P31/310A
 - Modular side panels - 25mm frame with 19mm vertical painted softwood V jointed boards as per clause K20/230
 - Modular top panels - 25mm softwood capping with 5mm chamfer to front edge as per clause K20/230A
 - Refer to Architects drawing OTH-PUR-TH-ZZ-DWG-A-5920 (type 1), OTH-PUR-TH-ZZ-DWG-A-5921 (Type 2), OTH-PUR-TH-ZZ-DWG-A-5922 (Type 3)
 - Hinges to boxing lid as per clause P21/320A
 - Folded metal covers to heat emitters as per clause Z11/432.
- Above joinery to adhere to the following clauses Z10/110 & Z10/220 with fixings and adhesives to comply with clause Z11

111B PURPOSE MADE JOINERY FOR PERIMETER BOXING TYPE 4

- TYPE 4: Refer to drawings for dimension details_ OTH-PUR-TH-ZZ-DWG-A-5923
 - Location Room - Refer to location drawings_ OTH-PUR-TH-GF-DWG-A-0601, OTH-PUR-TH-01-DWG-A-0602, OTH-PUR-TH-02-DWG-A-0603, OTH-PUR-TH-03-DWG-A-0604, OTH-PUR-TH-04-DWG-A-0605, OTH-PUR-TH-05-DWG-A-0606, OTH-PUR-TH-06-DWG-A-0607.
 - Skeletal frame Unistrut as per clause P31/310A
 - Modular side panels - Constructed from 17mm IPS panel system as K32/125
 - Modular top panels - 17mm IPS panel as per clause K32/125
- Refer to Architects drawing OTH-PUR-TH-ZZ-DWG-A-5923 (type 4),
Above joinery to adhere to the following clauses Z10/110 & Z10/210 with fixings and adhesives to comply with clause Z11

115A PURPOSE MADE JOINERY GREAT HALL STAGING (FIXED AND DEMOUNTABLE):

- Scope: refer to drawings OTH-PUR-TH-01-DWG-A-8300 through to 8314.
- Joinery Construction:
 - Framing and panels to be made with quarter-cut European oak with pegged mortice and tenons. Moisture content as clause 150.
 - All mitres to be hand finished.
 - Fixings to be with slot headed stainless steel screws with square cover plugs to match timber species and finish to rest of stage joinery.
 - Joinery finish to be stained and oiled to match the existing side wall panels in the Great Hall.
- Acoustic design as follows:
 - General requirements
 - o Floors must not generate any noise when exposed to high levels of sound.
 - o Floors shall not creak or produce other noise as a result of loading, thermal movement or building movement.
 - o Floors must be compatible with requirements included in the acoustic specification, including sound insulation of floors, walls and doors
 - o Interfaces between floors and other elements must be compatible with all other acoustic requirements including sound insulation requirements.
 - o All service penetrations must be detailed so as not to degrade sound insulation.
 - Fixed stage
 - o The fixed stage shall be built up of two or more layers of board.
 - o The surface layer should be = 22mm thickness of a tongue & groove hardwood with a density = 640kgm³/.
 - o The surface layer should be screwed and glued to one or more base layers.
 - o The base layer(s) should be a total = 19 mm thickness, density = 640kgm³/.
 - o The layers should be screwed at close centres so that the layers act as one contiguous structure, with no airspace between the layers.
 - o Joints in the floor layers should overlap.
 - o Supporting battens shall be spaced at no more than 500mm intervals.
 - Demountable stage
 - o Demountable stage segments should be constructed of the same construction as the fixed stage risers.
 - Consideration should be given to the need of any dance performances. The construction detailed above may not be suitable for some dance types and should be reviewed with the appropriate parties. Loose-laid acoustic matting may be provided for specific performances.
 - The construction detailed above should be reviewed by the structural engineer to ensure that any load requirements can be satisfied.
- Structural members for fixed and demountable stages to Structural Engineer's design, drawing OTH-RAM-TH-01-DWG-4140.
- Samples to be provided of the following for approval by the Architect prior to fabrication:
 - timber cut and species
 - stained and oiled finish
 - typical moulding detail to agree level of finish
 - typical emblem (top panel of fixed stage) to agree level of finish.

115B JOINERY ALTERATIONS TO THE GREAT HALL SIDE WALL PANELS:

- Scope: refer to drawings OTH-PUR-TH-01-DWG-A-8320 and 8321.
- Prior to removal, label panels in accordance with clause 170.
- Removal of panels for access :
 - access is required to the zones behind the historic existing side wall panels.
 1. remove skirting by removing existing cups and screws.
 2. check that the top dado rail is secure. If not, provide temporary support.
 3. if stile is tight to floor, ease by carefully cutting off end to allow rotation of bottom outwards (check both ends).
 4. check clearance of scribing to stonework - if too tight, ease by stage (5).
 5. (IF REQUIRED) chamfer back edge with chisel from behind, accessed from skirting void below.
 6. (IF REQUIRED - AGREE WITH ARCHITECT PRIOR TO PROCEEDING WITH THIS STAGE): fret saw through stile in lower corner of panel to enable panel to be eased away from wall if not already feasible via stage 5.
 7. Ease whole panel (minus fixed dado rail) away from the wall in whole piece. Handle element with care and protect in accordance with clauses 160 and 170.
- Alterations and re-fixing of panels following works :
 - A. Re-fixing of stile following cut removal (stage 6 shown in detail 3 of drawing 8321):
 - Repairs are to be let into the surface to match existing profiles and should be carefully spliced-on so as to retain as much original material as possible.
 - repairs are to be finished by hand.
 - Glue and clamp using stainless steel countersunk screws/lost head nails to suit repair; sized to suit application. Glue elements using hot animal glue. Care must be taken to ensure that no adhesive is used where none was originally, e.g. between mouldings and panels.
 - Fill lost heads/fixings with a non-shrinking or cracking interior timber filler in accordance with paint manufacturers recommendations.
 - B. Re-fixing of dado rail:
 - if loose dado rail has been temporarily supported during removal of panel, permanent fixing to be provided with slot headed stainless steel screws with square cover plugs to match timber species and finish to rest of stage joinery.
 - C. Re-fixing of panel:
 - Tilt panel below dado rail, and ease base of panel into place (in existing location).
 - re-fit using original fixing methods, securing skirting in place to secure panel.
 - D. Re-fixing of skirting:
 - allow to replace existing fixings with antique unlacquered brass cups and screws.
- Note: some panels have been previously removed and unsuccessfully reinstated. These panels will require the same stages as above to ensure that they can be easily removed and reinstated in future.

115C CREDENZA UNITS joinery units for AV housing:

- Scope: joinery details as identified on drawings OTH-PUR-TH-ZZ-DWG-A-5638 and 5639.
Location plans as per the below:
 - Ceremony room 01-019 (location plan 8142): drawing 5639;
 - Jury Court 04-024 (location plan 5105): drawing detail 5638;
 - Coroner's Court Non-Jury 03-001 (location plan 5107): drawing detail 5638.
- Where possible, existing cabinets identified in the drawing to be reused and altered to suit new arrangements. All other Credenza units will be new joinery items.
- Joinery Construction:
 - Framing and panels to be made with quarter-cut European oak with pegged mortice and tenons. Moisture content as clause 150.
 - All mitres to be hand finished.
 - Fixings to be with slot headed stainless steel screws with square cover plugs to match timber species and finish to rest of stage joinery.
 - Joinery finish to be stained and oiled.
- Sliding door track fittings:
Manufacturer: Hafele; <https://www.hafele.co.uk/en/>.
Product:
 - 2No. top tracks (article no. 405.00.622);
 - fitting set for 3 sliding cabinet doors (article no. 405.02.405) including track stoppers;
 - 2No. bottom guides (article no. 405.04.25).
- Glass panels to be single glazed un-treated, low-iron panes.
- Samples to be provided of the following for approval by the Architect prior to fabrication:
 - timber cut and species
 - stained and oiled finish.

120 CROSS SECTION DIMENSIONS OF TIMBER

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

130 PRESERVATIVE TREATED WOOD

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

140 MOISTURE CONTENT

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

150 HARDWOOD FOR BESPOKE JOINERY

- Species: Quarter-cut European Oak, unless otherwise noted in specific clause for joinery element.
- Quality: Generally to BS EN 942; free from decay and insect attack (except pinhole borers).
 - Appearance class: Class J2 for glazing beads, mouldings, linings and the like. J20 or better for all other members. Knots on arrises not permitted where exposed to view.
- Moisture content on delivery:
 - Internally: 9–13% for buildings with heating providing room temperatures in the range 12–21°C.
 - 6–10% for buildings with heating providing room temperatures in excess of 21°C
- Moisture content upon fixing: to minimise cracking to match the timber being repaired in its normal conditions upon completion .

160 PROTECTION OF TIMBER AND WOOD COMPONENTS BEFORE AND DURING INSTALLATION

- Storage: All joinery that is removed during the works is to be stored neatly and carefully in a location that is dry, under cover, clear of the ground and with good ventilation. Support sections/ components on regularly spaced, level bearers on a dry, firm base.
- Handling: Do not overstress, distort or disfigure sections or components during transit, storage, lifting, erection or fixing. Any removed timber pieces/panelling that are to be reinserted are to be appropriately labelled so as not to damage or permanently mark the piece. Any harm when removing any elements must be minimised to the timber itself and the adjacent materials. Methods to reduce impact to be confirmed with Architect.
- Appropriate health and safety steps must be taken for working at height and for minimising the impact on the overall integrity of timber panelling.
- During the works all appropriate PPE must be worn as specified by contractor.

170 TEMPORARY REMOVAL AND REINSTATEMENT OF FITTINGS/ FIXTURES

- Items to be removed, and reinstated on completion of repair work:
 - Identification: Attach labels or otherwise mark items using durable, non-permanent means, to identify location and refixing instructions, where applicable.
 - Treatment following removal: Refurbish and repair as necessary/as scheduled.
 - Storage: Protect against damage, and store until required.
Storage location: on site in secure location.
 - Reinstatement: Refit in original locations using original installation methods.

210 LAMINATED PLASTICS VENEERED BOARDS/ PANELS

- Fabrication: To British Laminated Plastics Fabricators Association Ltd (BLF) fabricating standards.
- Balancing veneer: From decorative veneer manufacturer and of similar composition. Applied to reverse side of core.
- Finished components: Free from defects, including bow, twist, scratches, chipping, cracks, pimpling, indentations, glue marks, staining and variations in colour and pattern.
- Joints visible in completed work: Tight butted, true and flush.

220 WOOD VENEERED BOARDS/ PANELS

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

250 FINISHING

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