

**Part 1 General**

**1.1 RELATED SECTIONS**

- .1 Division 1
- .2 Section 09 91 23 - Interior Painting: Painting and finishing.

**1.2 REFERENCES**

- .1 American National Standards Institute (ANSI)
  - .1 ANSI A208.1, Particleboard.
  - .2 ANSI A208.2, Medium Density Fibreboard (MDF)
  - .3 ANSI/HPVA HP-1, Standard for Hardwood and Decorative Plywood
- .2 American Society for Testing and Materials (ASTM)
  - .1 ASTM E1333-96 (2002), Test Method for Determining Formaldehyde Concentrations in Air and Emissions Rates from Wood Products Using a Large Chamber.
- .3 Architectural Woodwork Manufacturers Association of Canada (AWMAC)
  - .1 AWMAC/ AWI Architectural Woodwork Quality Standards Illustrated 8th edition, Version 1.0.
- .4 Canadian General Standards Board (CGSB)
  - .1 CAN/CGSB-11.3-M87, Hardboard.
- .5 Canadian Standards Association (CSA)
  - .1 CSA B111-74), Wire Nails, Spikes and Staples.
  - .2 CAN/CSA-G164-M, Hot Dip Galvanizing of Irregularly Shaped Articles.
  - .3 CSA O115-M, Hardwood and Decorative Plywood.
  - .4 CSA O121-M, Douglas Fir Plywood.
  - .5 CAN/CSA O141, Softwood Lumber.
  - .6 CSA O151, Canadian Softwood Plywood.
  - .7 CSA O153-M, Poplar Plywood.
- .6 Forest Stewardship Council (FSC)
  - .1 FSC-STD-01-001, FSC Principle and Criteria for Forest Stewardship.
- .7 National Hardwood Lumber Association (NHLA)
  - .1 Rules for the Measurement and Inspection of Hardwood and Cypress.
- .8 National Lumber Grades Authority (NLGA)
  - .1 Standard Grading Rules for Canadian Lumber.
- .9 South Coast Air Quality Management District (SCAQMD), California State (SCAQMD)
  - .1 SCAQMD Rule 1113, Architectural Coatings.
  - .2 SCAQMD Rule 1168, Adhesives and Sealants Applications
- .10 Underwriters Laboratories of Canada (ULC)
  - .1 CAN4-S104-M, Fire Tests of Door Assemblies.
  - .2 CAN4-S105-M, Fire Door Frames, meeting the Performance Required by CAN4-S104.

**1.3 SHOP DRAWINGS**

- .1 Submit shop drawings in accordance with Contract Conditions.
- .2 Indicate details of construction, profiles, jointing, fastening and other related details.
- .3 Indicate materials, thicknesses, finishes and hardware.

**1.4 SAMPLES**

- .1 Submit samples in accordance with Contract Conditions.

**1.5 REGULATORY REQUIREMENTS**

- .1 Wood fire rated frames and panels: listed and labelled by an organization accredited by Standards Council of Canada in conformance with CAN4-S104 and CAN4-S105 for ratings specified or indicated.

**1.6 DELIVERY, STORAGE, AND HANDLING**

- .1 Deliver, handle, store and protect materials in accordance with Contract Conditions.
- .2 Protect materials against dampness during and after delivery.
- .3 Store materials in ventilated areas, protected from extreme changes of temperature or humidity.

**1.7 WASTE MANAGEMENT AND DISPOSAL**

- .1 Separate and recycle waste materials in accordance with Contract Conditions to maximum extent economically possible.
  - .2 Separate wood waste in accordance with applicable provincial and municipal regulations and place in designated areas in categories as follows for recycling: Solid wood/ softwood/ hardwood, composite wood, treated, painted, or contaminated wood.
  - .3 Separate wood waste in accordance with applicable provincial and municipal regulations and place in designated areas in categories as follows for re-use on site: sheet materials larger than 1m<sup>2</sup>, framing members larger than 1000mm, multiple offcuts of any size larger than 610mm.
  - .4 Set aside damaged wood for acceptable alternative uses (e.g. bracing, blocking, cripples, bridging, finger-jointing, or ties). Store separated reusable wood waste convenient to cutting station and area of work.
  - .5 Separate corrugated cardboard in accordance with applicable provincial and municipal regulations and place in designated areas for recycling.
  - .6 Do not burn scrap at project site.
  - .7 Fold up metal banding, flatten, and place in designated area for recycling.
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**Part 2**

**Products**

**2.1**

**LUMBER MATERIAL**

- .1 Softwood lumber: unless specified otherwise, S4S, moisture content 19% or less in accordance with following standards:
  - .1 CAN/CSA-O141.
  - .2 NLGA Standard Grading Rules for Canadian Lumber.
  - .3 AWMAC premium grade, moisture content as specified.
- .2 Machine stress-rated lumber is acceptable.
- .3 Hardwood lumber: moisture content 19 % or less in accordance with following standards:
  - .1 National Hardwood Lumber Association (NHLA).
  - .2 AWMAC premium grade, moisture content as specified.
- .4 Manufacturing process must adhere to Lifecycle Assessment (LCA) Standards as per ISO 14040/14044 LCA Standards.

**2.2**

**MANUFACTURED TRIM**

- .1 Interior Standing and running trim:
  - .1 Material: Solid stock for stain finish: oak species, to match existing.
  - .2 Door and window casings: Profile: to match existing.

**2.3**

**PANEL MATERIAL**

- .1 Hardwood plywood: to CSA O115.
  - .1 Forestry Stewardship Council (FSC) certified.
  - .2 Urea-formaldehyde free.
  - .3 Black walnut veneer, rift cut and book matched.
  - .4 Finish: walnut stain.
- .2 Poplar plywood (PP): to CSA O153, standard construction.
  - .1 Forestry Stewardship Council (FSC) certified.
  - .2 Urea-formaldehyde free.
  - .3 To be used for hidden locations.

**2.4**

**MOULDINGS**

- .1 Wainscoting:
  - .1 Mouldings to be solid wood, black walnut species.
  - .2 Construction and profiles: as detailed
  - .3 Joinery: rabbeted and splined
  - .4 Finish: Walnut stain.

**2.5**

**CROWN MOULDINGS**

- .1 Crown moulding for ceilings in Main Area and in each Watercloset:
  - .1 7 1/4" MDF Crown moulding, primed finish. (25mm x 184.1mm);
  - .2 Acceptable product: Metrie, Model 34232ACRM, or preapproved equivalent.
  - .3 Finish: to be painted white as per ceiling.

**2.6 ACCESSORIES**

- .1 Nails and staples: to CSA B111; galvanized to CAN/CSA-G164 for exterior work, interior humid areas and for treated lumber; plain finish elsewhere.
- .2 Wood screws: type and size to suit application.
- .3 Splines: wood.
- .4 Adhesive: recommended by manufacturer.
  - .1 Adhesives: maximum VOC limit 30 g/L SCAQMD Rule 1168 - Adhesives and Sealants Applications.
- .5 Fire-retardant intumescent varnish: Provide plywood panels with shop sprayed fire-retardant clear varnish, application to achieve the following surface-burning characteristics when tested in accordance with ASTM E 84: flame spread 20; smoke developed 25. Satin finish.
- .6 Use least toxic sealants, adhesives, sealers, and finishes necessary to comply with requirements of this section.

**2.7 FINISHES**

- .1 Refer to Section 09 91 23 - Interior Painting

**Part 3 Execution**

**3.1 INSTALLATION**

- .1 Do finish carpentry to Quality Standards of the Architectural Woodwork Manufacturers Association of Canada (AWMAC), except where specified otherwise.
- .2 Scribe and cut as required, fit to abutting walls, and surfaces, fit properly into recesses and to accommodate piping, columns, fixtures, outlets, or other projecting, intersecting or penetrating objects.
- .3 Form joints to conceal shrinkage.

**3.2 CONSTRUCTION**

- .1 Fastening
  - .1 Position items of finished carpentry work accurately, level, plumb, true and fasten or anchor securely.
  - .2 Design and select fasteners to suit size and nature of components being joined. Use proprietary devices as recommended by manufacturer.
  - .3 Set finishing nails to receive filler. Where screws are used to secure members, countersink screw in round cleanly cut hole and plug with wood plug to match material being secured.
  - .4 Replace items of finish carpentry with damage to wood surfaces including hammer and other bruises.

**END OF SECTION**

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