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**1 GENERAL**

**1.1 General Requirements**

- .1 All requirements of the Contract apply to and govern all work of this Section.
- .2 Comply with the requirements of Division 1.

**1.2 Standards Referred to in this Section**

- .1 Architectural Woodwork Manufacturers Association of Canada (AWMAC)
  - .1 Architectural Woodwork Standards, 2014
- .2 Canadian Standards Association (CSA)
  - .1 CSA B111-74(R2003), Wire Nails, Spikes and Staples.
  - .2 CAN/CSA-G164-M92(R1998), Hot Dip Galvanizing of Irregularly Shaped Articles.
  - .3 CSA O115-M82(R2001), Hardwood and Decorative Plywood.
  - .4 CSA O121-08(R2013), Douglas Fir Plywood.
  - .5 CAN/CSA O141-05(R2014), Softwood Lumber.
  - .6 CSA O151-09(R2014), Canadian Softwood Plywood.
  - .7 CSA O153-13, Poplar Plywood.
  - .8 CSA Z760-94(R2001), Life Cycle Assessment.
- .3 International Organization for Standardization (ISO)
  - .1 ISO 14040-97, Environmental Management-Life Cycle Assessment - Principles and Framework.
  - .2 ISO 14041-98, Environmental Management-Life Cycle Assessment - Goal and Scope Definition and Inventory Analysis.
- .4 National Hardwood Lumber Association (NHLA)
  - .1 Rules for the Measurement and Inspection of Hardwood and Cypress 2003.
- .5 National Lumber Grades Authority (NLGA)
  - .1 Standard Grading Rules for Canadian Lumber 2003.

**1.3 Shop Drawings**

- .1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
  - .1 Indicate details of construction, profiles, jointing, fastening and other related details.
  - .2 Indicate materials, thicknesses, finishes and hardware.

**1.4 Samples**

- .1 not required.

**1.5 Delivery, Storage, and Handling**

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

## **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 6 % 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, CSA Z760-94 LCA Standards.

### **2.2 Accessories**

- .1 Nails and staples: to CSA B111; galvanized to CAN/CSA-G164 for interior humid areas; plain finish elsewhere.
- .2 Wood screws: plain steel, type and size to suit application.
- .3 Splines: wood.
- .4 Handrail support : 12.5 diameter steel bar, shape and size as indicated on drawings.
- .5 Handrail glazing support: steel plate, size and shape as indicated on drawings.
- .6 Adhesive: as recommended by manufacturer.

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- .1 Use least toxic sealants, adhesives, sealers, and finishes necessary to comply with requirements of this Section and as noted below:
    - .1 VOC's in adhesives not to exceed 10.0 mg/m<sup>2</sup>/hr.
    - .2 No greater than 0.05 mg/m<sup>2</sup>/hr formaldehyde.
    - .3 No greater than 3.00 mg/m<sup>2</sup>/hr 2-ethyl-1-hexanol.
  - .2 VOC's in sealers not to exceed 250 g/l.
  - .3 VOC's in sealant primer not to exceed 250 g/l.
  - .4 VOC's in varnish not to exceed 350 g/l.
  - .5 VOC's in sanding sealers not to exceed 350 g/l.
  - .6 VOC's in lacquer not to exceed 680 g/l.
  - .7 VOC's in quick dry primers, sealers, and undercoaters not to exceed 200 g/l.
  - .8 VOC's in shellac not to exceed 550 g/l.

### **3 EXECUTION**

#### **3.1 Installation**

- .1 Do finish carpentry to premium 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.
- .2 Standing and running trim.
  - .1 Butt and cope internal joints of wood trim to make snug, tight, joint. Cut right angle joints of casing with mitred joints.
  - .2 Make joints in wood trim, where necessary using a 45° scarf type joint.

#### **3.3 Schedule**

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- .1 Standing and running trim.
    - .1 Solid stock, maple species.
    - .2 Clear finish.
  
  - .2 Guardrails, handrails.
    - .1 Solid stock, maple species
    - .2 Clear finish.

**END OF SECTION**