

## **Part 1 General**

### **1.1 RELATED REQUIREMENTS**

- .1 Verify all other sections in this specification for related work.

### **1.2 REFERENCE STANDARDS**

- .1 American National Standards Institute (ANSI)
  - .1 ANSI A208.2-09, Medium Density Fiberboard (MDF) for Interior Applications.
  - .2 ANSI/HPVA HP-1-10, Standard for Hardwood and Decorative Plywood.
- .2 ASTM International
  - .1 ASTM D2832-92(R2011), Standard Guide for Determining Volatile and Nonvolatile Content of Paint and Related Coatings.
  - .2 ASTM D2369, Standard Test Method for Volatile Content of Coatings.
- .3 Architectural Woodwork Manufacturers Association of Canada (AWMAC)
  - .1 Architectural Woodwork Standards (AWS).
    - .1 AWS Manual - (2014)
- .4 Canadian General Standards Board (CGSB)
  - .1 CAN/CGSB-71.20-M88, Adhesive, Contact, Brushable.
- .5 CSA International
  - .1 CSA B111-74(R2003), Wire Nails, Spikes and Staples.
  - .2 CSA O121-08, Douglas Fir Plywood.
  - .3 CSA O151-09, Canadian Softwood Plywood.
  - .4 CSA O153-M1980 (R2008), Poplar Plywood.
  - .5 CAN/CSA-Z809-08, Sustainable Forest Management.
- .6 Forest Stewardship Council (FSC)
  - .1 FSC-STD-01-001-2004, FSC Principle and Criteria for Forest Stewardship.

### **1.3 FACTORY FINISHING**

- .1 All "exposed" and "semi-exposed" surfaces of millwork shall be prefinished at the Contractor's plant prior to shipping to the job site. Finishing shall be carried out in conformance with Part 600, "Factory Finishing" of the AWMAC Quality Standards for Architectural Woodwork, 1998.

### **1.4 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Submit in accordance with Section 01 33 00- Submittal Procedures.
- .2 Product Data:
  - .1 Submit manufacturer's instructions, printed product literature and data sheets for architectural woodwork and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Shop Drawings:
  - .1 Submit shop drawings in accordance with AWS requirements.

- .2 Submit two copies.
  - .1 One will be returned with reviewed notations.
  - .2 Make corrections noted and distribute required copies prior to start of work
- .3 Shop drawings to be produced using CAD software.
- .4 Samples:
  - .1 Submit two sample sets of finished samples of each species and cut of wood to be used.
    - .1 Veneer samples minimum 304 mm x 304 mm.
    - .2 Each sample set of three to represent range of color and grain expected.
- .5 Certifications: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.

## **1.5 QUALITY ASSURANCE**

- .1 Work in accordance with Grade or Grades specified of the AWS.
- .2 Woodwork Manufacturer Qualifications:
  - .1 Member in Good Standing of AWMAC.
  - .2 Minimum 5 years of production experience similar to this project, whose qualifications indicate ability to comply with requirements of this Section.
- .3 Lumber by grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board.
- .4 Plywood, particleboard, OSB and wood based composite panels to CSA and ANSI standards.

## **1.6 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Delivery of architectural millwork made only when area of operation enclosed, plaster and concrete work dry and area broom clean.
- .3 Storage and Handling Requirements:
  - .1 Store materials indoors and in accordance with temperature and humidity range recommendations by the AWS in clean, dry, well-ventilated area.
  - .2 Store and protect architectural woodwork from nicks, scratches, and blemishes.
  - .3 Replace defective or damaged materials with new.

## **Part 2 Products**

### **2.1 MATERIALS**

- .1 Hardwood lumber: to National Hardwood Lumber Association (NHLA) requirements, moisture content of maximum 7% for interior work, Walnut, to AWMAC custom grade.
- .2 Panels:
  - .1 Fire Rated 7/16" particle board with veneer.
  - .2 GLUES: CSA 0112.5-M1977
  - .3 PRESERVATIVE: CSA 080-M
  - .4 Total panel system to have 0-75 flame spread rating, 0-450 smoke development.
- .3 Nails and staples: to CSA B111.

- .4 Wood screws: stainless steel, type and size to suit application.
- .5 Splines: wood.
- .6 Stainless steel reveal trim: to be provided between each veneer panel.
- .7 All stainless steel throughout to be smooth/matt finish.
- .8 Exposed veneer surfaces: book matched;
  - .1 Veneer cut to match sample (to be provided);
  - .2 Veneer to be walnut;
  - .3 Veneer to have fire retardant clear lacquer.

## **2.2 FABRICATION**

- .1 Set nails and countersink screws apply plain wood filler to indentations, sand smooth and leave ready to receive finish.
- .2 Provide cut outs for inserts, outlet boxes and other fixtures.
- .3 Shop assemble work for delivery to site in size easily handled and to ensure passage through building openings.
- .4 Obtain governing dimensions before fabricating items.
- .5 Ensure adjacent parts of continuous veneer work match in colour and pattern.
- .6 Veneer to core material in accordance with adhesive manufacturer's instructions. Ensure core and veneer profiles coincide to provide continuous support and bond over entire surface. Use continuous lengths up to 2400mm. Keep joints 600 mm from sink cut outs.
- .7 Form shaped profiles and bends as indicated, using post forming grade laminate to laminate manufacturer's instructions.
- .8 Use straight self-edging laminate strip for flatwork to cover exposed edge of core material. Chamfer exposed edges uniformly at approximately 20 degrees. Do not mitre veneer edges.

## **2.3 FINISHING**

- .1 Finish in accordance with Section 09 91 23- Interior Painting.
- .2 Factory Finishing.
- .3 Grade: AWS Match grade of product to be finished.

## **Part 3 Execution**

### **3.1 EXAMINATION**

- .1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for architectural woodwork installation in accordance with manufacturer's instructions.
  - .1 Visually inspect substrate.

- .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
- .3 Proceed with installation only after unacceptable conditions have been remedied.

### **3.2 INSTALLATION**

- .1 Install work in conformance with the AWS. Conform to AWS Grade(s).
- .2 Fasten and anchor millwork securely.
- .3 Scribe and cut as required to fit abutting walls and to fit properly into recesses and to accommodate fixtures, outlets or other projecting, intersecting or penetrating objects.
- .4 Fit hardware accurately and securely in accordance with manufacturer's written instructions.

### **3.3 PREPARATION**

- .1 Provide all rough hardware required for the proper execution of the work and provide and use all requisite screws, nails, bolts, holdfasts, and accessories not otherwise specified.

### **3.4 GENERAL MILLWORK WORKMANSHIP**

- .1 Millwork shall be preassembled in the shop as far as practicable and delivered to the building ready to be set in place.
- .2 Frames and finish of every sort shall not be set until moisture contributing finishes are dry and relative humidity in the building approximates normal conditions. Work shall be fitted and scribed to other finished work in a careful manner with all necessary precautions taken to avoid defacing adjacent surfaces. Finish nails shall be properly set ready to receive putty.
- .3 SITE DIMENSIONS AND CONDITIONS shall be the responsibility of the Contractor and no extra will be allowed for material which does not fit the required conditions.

### **3.5 MILLWORK FINISH**

- .1 Except where shown otherwise on drawings, details, and specifications, finishing of millwork shall be as follows:
  - .1 Clear Lacquer finish: (spray application):
    - .1 one coat clear sanding sealer;
    - .2 sand lightly;
    - .3 one coat of transparent lacquer;
    - .4 one coat of clear lacquer (sheen to later selection).

### **3.6 CLEANING**

- .1 Progress Cleaning: clean in accordance with Section 01 74 11- Cleaning. Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11- Cleaning.
  - .1 Clean millwork.
  - .2 Remove excess glue from surfaces.

### **3.7 PROTECTION**

- .1 Protect millwork from damage until final inspection.
- .2 Protect installed products and components from damage during construction.
- .3 Repair damage to adjacent materials caused by architectural woodwork installation.

**END OF SECTION**