

## **SECTION 06200 - FINISH CARPENTRY**

### **PART 1 GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### **1.02 SUMMARY**

- A. This Section includes the following:
  - 1. Interior standing and running trim for field-painted finish.
  - 2. Shelving and clothes rods.
  - 3. Stairs and railings.
- B. Related Sections include the following:
  - 1. Division 6 Section "Rough Carpentry" for furring, blocking, and other carpentry work not exposed to view.
  - 2. Division 9 Section "Painting" for priming and backpriming of finish carpentry.

#### **1.03 DEFINITIONS**

- A. Inspection agencies, and the abbreviations used to reference them, include the following:
  - 1. AWI - Architectural Woodwork Institute.
  - 2. NELMA - Northeastern Lumber Manufacturers Association.
  - 3. NHLA - National Hardwood Lumber Association.
  - 4. NLGA - National Lumber Grades Authority.
  - 5. RIS - Redwood Inspection Service.
  - 6. SCMA - Southern Cypress Manufacturers Association.
  - 7. SPIB - Southern Pine Inspection Bureau.
  - 8. WCLIB - West Coast Lumber Inspection Bureau.
  - 9. WWPA - Western Wood Products Association.

#### **1.04 SUBMITTALS**

- A. Product Data: For each type of process and factory-fabricated product. Include construction details, material descriptions, dimensions of individual components and profiles, textures, and colors.
  - 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used, net amount of preservative retained, and chemical treatment manufacturer's written instructions for handling, storing, installing, and finishing treated material.
  - 2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements.
  - 3. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
- B. Samples for Verification:
  - 1. For each species and cut of lumber and panel products with nonfactory-applied finish, with 1/2 of exposed surface finished, 50 sq. in. (300 sq. cm) for lumber and 8 by 10 inches (203 by 250 mm) for panels.
- C. Research/Evaluation Reports: Showing that fire-retardant-treated wood complies with building code in effect for Project.

## **1.05 QUALITY ASSURANCE**

- A. Installer Qualifications: A qualified installer.
- B. Fire-Test-Response Characteristics: Where fire-retardant materials are indicated, provide materials with specified fire-test-response characteristics as determined by a testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency on surfaces of materials that will be concealed from view after installation.

## **1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Protect materials against weather and contact with damp or wet surfaces. Stack lumber, plywood, and other panels. Provide for air circulation within and around stacks and under temporary coverings.
- B. Deliver interior finish carpentry only when environmental conditions meet requirements specified for installation areas. If finish carpentry must be stored in other than installation areas, store only where environmental conditions meet requirements specified for installation areas.

## **1.07 PROJECT CONDITIONS**

- A. Environmental Limitations: Do not deliver or install interior finish carpentry until building is enclosed and weatherproof, wet work in space is completed and nominally dry, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.

## **PART 2 PRODUCTS**

### **2.01 MATERIALS, GENERAL**

- A. Lumber: DOC PS 20 and applicable grading rules of inspection agencies certified by the American Lumber Standards' Committee Board of Review.
  - 1. Factory mark each piece of lumber with grade stamp of inspection agency indicating grade, species, moisture content at time of surfacing, and mill.
  - 2. For exposed lumber, mark grade stamp on end or back of each piece.
- B. Softwood Plywood: DOC PS 1.
- C. Hardwood Plywood: HPVA HP-1.

### **2.02 INTERIOR STANDING AND RUNNING TRIM**

- A. Lumber Trim for Opaque Finish (Painted): Finished lumber (S4S), either finger-jointed or solid lumber, of one of the following species and grades:
  - 1. Grade Finish or 1 Common eastern white pine; NELMA or NLGA.
  - 2. Grade 1 Common (Colonial) Idaho white, lodgepole, ponderosa, or sugar pine; NLGA or WWPA.
  - 3. Grade 1 Common white woods; WWPA.
- B. Moldings: Comply with AWI Section 300, Custom Grade.
  - 1. Moldings for Opaque Finish (Painted): P-grade eastern white, Idaho white, lodgepole, ponderosa, or sugar pine .
  - 2. Base Pattern: AWI profile shape BAS-1023, 11/16-by-2-1/4-inch base.
  - 3. Shoe-Mold Pattern: AWI profile shape 1/2-by-3/4-inch quarter round shoe mold.
  - 4. Casing Pattern: AWI profile shape CAS-2098, 11/16-by-2-1/4-inch casing.

### **2.03 SHELVING AND CLOTHES RODS**

- A. Shelving: 3/4-inch (19-mm) boards of same species and grade indicated above for interior lumber trim for opaque finish.
  - 1. Shelf Cleats: 3/4-by-5-1/2-inch (19-by-140-mm) boards, of same species and grade indicated above for interior lumber trim for opaque finish.
  - 2. Shelf Brackets: Prime-painted formed steel with provision to support clothes rod where rod is indicated.
- B. Clothes Rods: 1-1/2-inch- (38-mm-) diameter, aluminum tubes.

## **2.04 STAIRS AND RAILINGS**

- A. Interior Stairs:
  - 1. Treads: 1-1/16-inch (27-mm), clear, kiln-dried, edge-glued, poplar stepping with half-round nosing.
  - 2. Risers: 13/16-inch (21-mm), clear, kiln-dried, edge-glued stock matching treads.
  - 3. Finished Stringers: 3/4-inch (19-mm) finish boards as specified above for interior lumber trim for opaque finish.
- B. Interior Railings: Clear, kiln-dried hard maple or yellow poplar of pattern indicated, either solid or laminated.
- C. Balusters: Clear, kiln-dried, hard maple or yellow poplar turned balusters of pattern and size indicated.

## **2.05 MISCELLANEOUS MATERIALS**

- A. Fasteners for Interior Finish Carpentry: Nails, screws, and other anchoring devices of type, size, material, and finish required for application indicated to provide secure attachment, concealed where possible.
  - 1. Where finish carpentry materials are exposed in areas of high humidity, provide fasteners and anchorages with hot-dip galvanized coating complying with ASTM A 153/A 153M.
- B. Glue: Aliphatic- or phenolic-resin wood glue recommended by manufacturer for general carpentry use.
- C. Flashing: Comply with requirements in Division 7 Section "Sheet Metal Flashing and Trim" for flashing materials installed in finish carpentry.
- D. Sealants: Comply with requirements in Division 7 Section "Joint Sealants" for materials required for sealing siding work.

## **2.06 FABRICATION**

- A. Wood Moisture Content: Comply with requirements of specified inspection agencies and with manufacturer's written recommendations for moisture content of finish carpentry at relative humidity conditions existing during time of fabrication and in installation areas.
- B. Back out or kerf backs of the following members, except members with ends exposed in finished work:
  - 1. Interior standing and running trim, except shoe and crown molds.
- C. Ease edges of lumber less than 1 inch (25 mm) in nominal thickness to 1/16-inch (1.5-mm) radius and edges of lumber 1 inch (25 mm) or more in nominal thickness to 1/8-inch (3-mm) radius.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Examine substrates, with Installer present, for compliance with requirements for installation

tolerances and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

### **3.02 PREPARATION**

- A. Clean substrates of projections and substances detrimental to application.
- B. Before installing finish carpentry, condition materials to average prevailing humidity in installation areas for a minimum of 24 hours, unless longer conditioning is recommended by manufacturer.

### **3.03 INSTALLATION, GENERAL**

- A. Do not use materials that are unsound, warped, improperly treated or finished, inadequately seasoned, or too small to fabricate with proper jointing arrangements.
  - 1. Do not use manufactured units with defective surfaces, sizes, or patterns.
- B. Install finish carpentry level, plumb, true, and aligned with adjacent materials. Use concealed shims where necessary for alignment.
  - 1. Scribe and cut finish carpentry to fit adjoining work. Refinish and seal cuts as recommended by manufacturer.
  - 2. Countersink fasteners, fill surface flush, and sand where face fastening is unavoidable.
  - 3. Install to tolerance of 1/8 inch in 96 inches (3 mm in 2438 mm) for level and plumb. Install adjoining finish carpentry with 1/32-inch (0.8-mm) maximum offset for flush installation and 1/16-inch (1.5-mm) maximum offset for reveal installation.
  - 4. Install stairs with no more than 3/16-inch (4.7-mm) variation between adjacent treads and risers and with no more than 3/8-inch (9.5-mm) variation between largest and smallest treads and risers within each flight.
  - 5. Coordinate finish carpentry with materials and systems in or adjacent to it. Provide cutouts for mechanical and electrical items that penetrate finish carpentry.

### **3.04 STANDING AND RUNNING TRIM INSTALLATION**

- A. Install with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than 24 inches (610 mm) long, except where necessary. Stagger joints in adjacent and related standing and running trim. Cope at returns and miter at corners to produce tight-fitting joints with full-surface contact throughout length of joint. Use scarf joints for end-to-end joints. Plane backs of casings to provide uniform thickness across joints, where necessary for alignment.
  - 1. Match color and grain pattern across joints.
  - 2. Install trim after gypsum board joint finishing operations are completed.
  - 3. Drill pilot holes in hardwood before fastening to prevent splitting. Fasten to prevent movement or warping. Countersink fastener heads on exposed carpentry work and fill holes.

### **3.05 STAIR AND RAILING INSTALLATION**

- A. Treads and Risers at Interior Stairs: Secure treads and risers by gluing and nailing to rough carriages.
  - 1. Closed Stringers: Cope wall stringers to fit tightly over treads and risers.
- B. Balusters: Dovetail or mortise balusters into treads, glue, and nail in place. Let into railings and glue in place.
- C. Railings: Secure wall rails with metal brackets. Fasten freestanding railings to newel posts and to trim at walls with countersunk-head wood screws or rail bolts, and glue. Assemble railings at goosenecks, easements, and splices with rail bolts and glue.

### **3.06 ADJUSTING**

- A. Replace finish carpentry that is damaged or does not comply with requirements. Finish carpentry may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing. Adjust joinery for uniform appearance.

### **3.07 CLEANING**

- A. Clean finish carpentry on exposed and semi-exposed surfaces. Touch up factory-applied finishes to restore damaged or soiled areas.

**END OF SECTION 06200**

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