

**SECTION 06 20 00
FINISH CARPENTRY**

PART 1 - GENERAL

1.1 DESCRIPTION

A. This section specifies interior millwork.

1.2 RELATED WORK

1.3 SUBMITTALS

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Shop Drawings:
 - 1. Millwork items - Half full size scale for sections and details 1:50 (1/4-inch) for elevations and plans.
 - 2. Show construction and installation.
- C. Samples:

Plastic laminate finished plywood or particleboard, 150 mm by 300 mm (six by twelve inches).
- D. Certificates:
 - 1. Indicating moisture content of materials meet the requirements specified.
- E. Manufacturer's literature and data:
 - 1. Finish hardware

1.4 DELIVERY, STORAGE AND HANDLING

- A. Protect lumber and millwork from dampness, maintaining moisture content specified both during and after delivery at site.
- B. Store finishing lumber and millwork in weather tight well ventilated structures or in space in existing buildings designated by COR. Store at a minimum temperature of 21⁰C (70⁰F) for not less than 10 days before installation.
- C. Pile lumber in stacks in such manner as to provide air circulation around surfaces of each piece.

1.5 APPLICABLE PUBLICATIONS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.
- B. American Society of Testing and Materials (ASTM):
 - A36/A36M-05.....Structural Steel
 - A53-06.....Pipe, Steel, Black and Hot-Dipped Zinc Coated, Welded and Seamless

A167-99 (R2004).....Stainless and Heat-Resisting Chromium-Nickel
 Steel Plate, Sheet, and Strip
 B26/B26M-05.....Aluminum-Alloy Sand Castings
 B221-06.....Aluminum and Aluminum-Alloy Extruded Bars, Rods,
 Wire, Profiles, and Tubes
 E84-07.....Surface Burning Characteristics of Building
 Materials
 F436-07.....Hardened Steel Washers
 C. American Hardboard Association (AHA):
 A135.4-04.....Basic Hardboard
 D. Builders Hardware Manufacturers Association (BHMA):
 A156.9-03.....Cabinet Hardware
 A156.11-04.....Cabinet Locks
 A156.16-02.....Auxiliary Hardware
 E. Hardwood Plywood and Veneer Association (HPVA):
 HP1-04.....Hardwood and Decorative Plywood
 F. National Particleboard Association (NPA):
 A208.1-99.....Wood Particleboard
 G. American Society of Mechanical Engineers (ASME):
 B18.2.1-96(R2005).....Square and Hex Bolts and Screws (Inch Series)
 H. American Wood-Preservers' Association (AWPA):
 AWPA C1-03.....All Timber Products - Preservative Treatment by
 Pressure Processes
 I. Architectural Woodwork Institute (AWI):
 AWI-99.....Architectural Woodwork Quality Standards and
 Quality Certification Program
 J. National Electrical Manufacturers Association (NEMA):
 LD 3-05.....High-Pressure Decorative Laminates
 LD 3.1-95.....Application, Fabrication and Installation of
 High-Pressure Decorative Laminates
 K. U.S. Department of Commerce, Product Standard (PS):
 PS1-95.....Construction and Industrial Plywood
 PS20-05.....American Softwood Lumber Standard
 L. Military Specification (Mil. Spec.):
 MIL-L-19140E.....Lumber and Plywood, Fire-Retardant Treated
 M. Federal Specifications (Fed. Spec.):
 A-A-1922A.....Shield Expansion
 A-A-1936.....Contact Adhesive
 FF-N-836D.....Nut, Square, Hexagon Cap, Slotted, Castle
 FF-S-111D(1).....Screw, Wood
 MM-L-736(C).....Lumber, Hardwood

PART 2 - PRODUCTS

2.1 LUMBER

A. Grading and Marking:

1. Lumber shall bear the grade mark, stamp, or other identifying marks indicating grades of material.
2. Such identifying marks on a material shall be in accordance with the rule or standard under which the material is produced, including requirements for qualifications and authority of the inspection organization, usage of authorized identification, and information included in the identification.
3. The inspection agency for lumber shall be approved by the Board of Review, American Lumber Standards Committee, to grade species used.

B. Sizes:

1. Lumber Size references, unless otherwise specified, are nominal sizes, and actual sizes shall be within manufacturing tolerances allowed by the standard under which product is produced.
2. Millwork, standing and running trim, and rails: Actual size as shown or specified.

C. Hardwood: MM-L-736, species as specified for each item.

D. Softwood: PS-20, exposed to view appearance grades:

1. Use C select or D select, vertical grain for transparent finish including stain transparent finish.
2. Use Prime for painted or opaque finish.

2.2 PLYWOOD

A. Softwood Plywood:

1. Prod. Std.
2. Grading and Marking:
 - a. Each sheet of plywood shall bear the mark of a recognized association or independent inspection agency that maintains continuing control over the quality of the plywood.
 - b. The mark shall identify the plywood by species group or identification index, and shall show glue type, grade, and compliance with PS1.
6. Other: As specified for item.

B. Hardwood Plywood:

2.3 PARTICLEBOARD

2.4 PLASTIC LAMINATE

2.5 ADHESIVE

2.6 STAINLESS STEEL

2.7 HARDWARE

A. Rough Hardware:

- 1.
2. Fasteners:
 - a. Bolts with Nuts: FF-N-836.
 - b. Expansion Bolts: A-A-1922A.
 - c. Screws: Fed. Spec. FF-S-111.

B. Finish Hardware

2. Cabinet Locks: ANSI A156.11.
3. Auxiliary Hardware: ANSI A156.16.
 - a. Handrail Brackets: L03081 or L03101.
 - 1) Cast Aluminum, satin polished finish.
 - 2) Cast Malleable Iron, japanned or enamel finish.
4. Pipe Bench Supports:
5. Fabricated Wall Bench Supports:
6. Thru-Wall Counter Brackets:
7. Primers: Manufacturer's standard primer for steel providing baked enamel finish.

2.8 MOISTURE CONTENT

- A. Moisture content of lumber and millwork at time of delivery to site.
 1. Interior finish lumber, trim, and millwork 32 mm (1-1/4 inches) or less in nominal thickness: 12 percent on 85 percent of the pieces and 15 percent on the remainder.
 2. Moisture content of other materials shall be in accordance with the standards under which the products are produced.

2.9 FIRE RETARDANT TREATMENT

- A. Where wood members and plywood are specified to be fire retardant treated, the treatment shall be in accordance with Mil. Spec. MIL-L19140.
- B. Treatment and performance inspection shall be by an independent and qualified testing agency that establishes performance ratings.
- C. Each piece of treated material shall bear identification of the testing agency and shall indicate performance in accordance with such rating of flame spread and smoke developed.
- D. Treat wood for maximum flame spread of 25 and smoke developed of 25.
- E. Fire Resistant Softwood Plywood:

F. Fire Resistant Hardwood Plywood:

2.10 FABRICATION

A. General:

1. Except as otherwise specified, use AWI Custom Grade for architectural woodwork and interior millwork.
2. Finish woodwork shall be free from pitch pockets.
3. Except where special profiles are shown, trim shall be standard stock molding and members of the same species.
4. Edges of members in contact with concrete or masonry shall have a square corner caulking rebate.
5. Fabricate members less than 4 m (14 feet) in length from one piece of lumber, back channeled and molded as shown.
6. Interior trim and items of millwork to be painted may be fabricated from jointed, built-up, or laminated members, unless otherwise shown on drawings or specified.
7. Plastic Laminate Work:

B. Mounting Strips, Shelves and Rods:

PART 3 - EXECUTION

3.1 ENVIRONMENTAL REQUIREMENTS

- A. Maintain work areas and storage areas to a minimum temperature of 21°C (70°F) for not less than 10 days before and during installation of interior millwork.
- B. Do not install finish lumber or millwork in any room or space where wet process systems such as concrete, masonry, or plaster work is not complete and dry.

3.2 INSTALLATION

A. General:

1. Millwork receiving transparent finish shall be primed and back-painted on concealed surfaces. Set no millwork until primed and back-painted.
2. Secure trim with fine finishing nails, screws, or glue as required.
3. Set nails for putty stopping. Use washers under bolt heads where no other bearing plate occurs.
4. Seal cut edges of preservative and fire retardant treated wood materials with a certified acceptable sealer.
5. Coordinate with plumbing and electrical work for installation of fixtures and service connections in millwork items.
6. Plumb and level items unless shown otherwise.

7. Nail finish at each blocking, lookout, or other nailer and intermediate points; toggle or expansion bolt in place where nails are not suitable.

B. Shelves:

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