

**SECTION 06 20 00
FINISH CARPENTRY**

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section specifies interior millwork.
- B. Items specified.
 - Nurse Station
 - Counter or Work Tops

1.2 RELATED WORK

- A. Framing, furring and blocking: Section 06 10 00, ROUGH CARPENTRY.
- B. Color and texture of finish: Section 09 06 00, SCHEDULE FOR FINISHES.
- C. Electrical light fixtures and duplex outlets: Division 26, ELECTRICAL.

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
 - 2. Electrical components

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 weathertight well ventilated structures or in space in existing buildings designated by Contracting Officer's Technical Representative (COTR). Store at a minimum temperature of 21°C (70°F) 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-08.....Structural Steel
- A53-07.....Pipe, Steel, Black and Hot-Dipped Zinc Coated,
Welded and Seamless
- A167-99 (R2009).....Stainless and Heat-Resisting Chromium-Nickel
Steel Plate, Sheet, and Strip
- B26/B26M-09.....Aluminum-Alloy Sand Castings
- B221-08.....Aluminum and Aluminum-Alloy Extruded Bars, Rods,
Wire, Profiles, and Tubes
- E84-09.....Surface Burning Characteristics of Building
Materials
- 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):
 - HP1-09.....Hardwood and Decorative Plywood
- F. National Particleboard Association (NPA):
 - A208.1-99.....Wood Particleboard
- G. American Wood-Preservers' Association (AWPA):
 - AWPA C1-03.....All Timber Products - Preservative Treatment by
Pressure Processes
- H. Architectural Woodwork Institute (AWI):
 - AWI-99.....Architectural Woodwork Quality Standards and
Quality Certification Program
- I. National Electrical Manufacturers Association (NEMA):
 - LD 3-05.....High-Pressure Decorative Laminates
- J. U.S. Department of Commerce, Product Standard (PS):
 - PS20-05.....American Softwood Lumber Standard
- K. Military Specification (Mil. Spec):
 - MIL-L-19140E.....Lumber and Plywood, Fire-Retardant Treated
- L. 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.

E. Use edge grain Wood members exposed to weather.

2.2 PARTICLEBOARD

A. NPA A208.1

B. Plastic Laminate Particleboard Cores:

1. Use Type 1, Grade 1-M-3, or Type 2, Grade 2-M-2, unless otherwise specified.
2. Use Type 2, Grade 2-M-2, exterior bond, for tops with sinks.

C. General Use: Type 1, Grade 1-M-3 or Type 2, Grade 2-M-2.

2.3 PLASTIC LAMINATE

A. NEMA LD-3.

B. Exposed decorative surfaces including countertops, both sides of cabinet doors, and for items having plastic laminate finish. General Purpose, Type HGL.

C. Cabinet Interiors including Shelving: Both of following options to comply with NEMA, CLS as a minimum.

1. Plastic laminate clad particle board.
2. Resin impregnated decorative paper thermally fused to particle board.

D. Backing sheet on bottom of plastic laminate covered wood tops: Backer, Type HGP.

E. Post Forming Fabrication, Decorative Surfaces: Post forming, Type HGP.

2.4 ADHESIVE

A. For Plastic Laminate: Fed. Spec. A-A-1936.

2.5 STAINLESS STEEL

ASTM A167, Type 302 or 304.

2.6 ALUMINUM CAST

ASTM B26

2.7 ALUMINUM EXTRUDED

ASTM B221

2.8 HARDWARE

A. Rough Hardware:

1. Furnish rough hardware with a standard plating, applied after punching, forming and assembly of parts; galvanized, cadmium plated, or zinc-coated by electric-galvanizing process. Galvanized where specified.
2. Use galvanized coating on ferrous metal for exterior work unless non-ferrous metals or stainless is used.
3. Fasteners:
 - a. Bolts with Nuts: FF-N-836.
 - b. Expansion Bolts: A-A-1922A.
 - c. Screws: Fed. Spec. FF-S-111.

B. Finish Hardware

1. Cabinet Hardware: ANSI A156.9.
 - a. Door/Drawer Pulls: B02011. Door in seismic zones: B03182.
 - b. Drawer Slides: B05051 for drawers over 150 mm (6 inches) deep, B05052 for drawers 75 mm to 150 mm 3 to 6 inches) deep, and B05053 for drawers less than 75 mm (3 inches) deep.
 - c. Sliding Door Tracks: B07063.
 - d. Adjustable Shelf Standards: B4061 with shelf rest B04083.
 - e. Concealed Hinges: B1601, minimum 110 degree opening.
 - f. Butt Hinges: B01361, for flush doors, B01381 for inset lipped doors, and B01521 for overlay doors.
 - g. Cabinet Door Catch: B0371 or B03172.
 - h. Vertical Slotted Shelf Standard: B04103 with shelf brackets B04113, sized for shelf depth.
2. Cabinet Locks: ANSI A156.11.
 - a. Drawers and Hinged Door: E07262.
 - b. Sliding Door: E07162.
3. Auxiliary Hardware: ANSI A156.16.
 - a. Shelf Bracket: B04041, japanned or enameled finish.
 - b. Combination Garment rod and Shelf Support: B04051 japanned or enamel finish.
 - c. Closet Bar: L03131 chrome finish of required length.

- d. Handrail Brackets: L03081 or L03101.
 - 1) Cast Aluminum, satin polished finish.
 - 2) Cast Malleable Iron, japanned or enamel finish.
- 4. Steel Channel Frame and Leg supports for Counter top. Fabricated under Section 05 50 00, METAL FABRICATIONS.
- 5. Pipe Bench Supports:
 - a. Pipe: ASTM A53.
- 6. Thru-Wall Counter Brackets:
 - a. Steel angles drilled for fasteners on 100 mm (4 inches) centers.
 - b. Baked enamel prime coat finish.
- 7. Folding Shelf Bracket:
 - a. Steel Shelf bracket, approximately 400 mm by 400 mm (16 by 16 inches), folding type with baked gray enamel finish or chrome plated finish.
 - b. Bracket legs shall be approximately 28 mm (1-1/8 inches) wide.
 - c. Distance from center line of hinge pin to back of vertical leg shall be 44 mm (1-3/4 inches) or provide for wood spacer if hinge line is at joint of vertical and horizontal leg.
 - d. Distance from face to face of bracket when closed shall be 50 mm (2 inches).
 - e. Brackets shall automatically lock when counter is raised parallel to floor and shall unlock manually.
 - f. Each bracket shall support not less than 68 Kg (150 pounds) evenly distributed.
- 8. Edge Strips Moldings:
 - a. Driven type "T" shape with serrated retaining stem; vinyl plastic to match plastic laminate color, stainless steel, or 3 mm (1/8 inch) thick extruded aluminum.
 - b. Stainless steel or extruded aluminum channels.
 - c. Stainless steel, number 4 finish; aluminum, mechanical applied medium satin finish, clear anodized 0.1 mm (0.4 mils) thick.
- 9. Rubber or Vinyl molding
 - a. Rubber or vinyl standard stock and in longest lengths practicable.
 - b. Design for closures at joints with walls and adhesive anchorage.
 - c. Adhesive as recommended by molding manufacturer.
- 10. Primers: Manufacturer's standard primer for steel providing baked enamel finish.

2.9 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.

2.10 FABRICATION

A. General:

1. Except as otherwise specified, use AWI Custom Grade for architectural woodwork and interior millwork.
2. Particleboard shall be not less than 13 mm (1/2 inch), unless otherwise shown or specified.
3. Edges of members in contact with concrete or masonry shall have a square corner caulking rebate.
4. Plastic Laminate Work:
 - a. Factory glued to either a particle board core, thickness as shown or specified.
 - b. Cover exposed edges with plastic laminate, except where aluminum, stainless steel, or plastic molded edge strips are shown or specified. Use plastic molded edge strips on 19 mm (3/4-inch) molded thick or thinner core material.
 - c. Provide plastic backing sheet on underside of countertops, vanity tops, thru-wall counter including back splashes and end splashes of countertops.
 - d. Use backing sheet on concealed large panel surface when decorative face does not occur.

B. Mounting Strips and Shelves:

1. Cut mounting strips from 25 mm by 100 mm (1 by 4 inches) softwood stock, with exposed edge slightly rounded.
2. Plastic laminate covered, 19 mm (3/4 inch) thick plywood or particle board core with edges and ends having plastic molded edge strips. Size, finish and number as shown.

C. Nurse Station:

1. Fabricate to AWI premium grade construction in conformance with AWI Section 400, CASEWORK.
2. Use softwood for structural framing member's standard sizes, space not over 400 mm (16 inches) on center.
4. Use drawer guides on drawers with pulls.
5. Use pulls and concealed hinges on doors.
6. Use adjustable shelf standards with shelf rests.
7. Use decorative plastic laminate on exposed surfaces.
8. Overlay frame of apron with drawer and door face.

9. Provide cut outs for electrical devices and outlets.

D. Counter or Work Tops:

1. Fabrication with plastic laminate over 32 mm (1-1/4 inch) thick core unless shown otherwise.
 - a. Use decorative laminate for exposed edges of tops 38 mm (1-1/2 inches) wide and on back splash and end splash. Use plastic or metal edges for top edges less than 38 mm (1-1/2 inches) wide.
 - b. Assemble back splash and end splash to counter top.
 - c. Use one piece counters for straight runs.
 - d. Miter corners for field joints with overlapping blocking on underside of joint.

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. Coordinate with plumbing and electrical work for installation of fixtures and service connections in millwork items.
2. Plumb and level items unless shown otherwise.
3. Nail finish at each blocking, lookout, or other nailer and intermediate points; toggle or expansion bolt in place where nails are not suitable.

B. Nurse Station Counters:

1. Secure framing to floor with expansion bolts.
2. Secure counter top to support with wood cleats or metal angles screwed on 150 mm (6 inch) centers.
3. Conceal fasteners on corridor side. Exposed fasteners permitted under counter top and in knee spaces on staff side.

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