

**SECTION 06 41 00**  
**ARCHITECTURAL WOOD CASEWORK**

**PART 1 - GENERAL**

**1.1 DESCRIPTION**

- A. This section specifies custom architectural wood casework and related components.

**1.2 RELATED WORK:**

- A. Section 09 91 00 - Painting: Site finishing.
- B. Section 12 36 00 - Countertops.

**1.3 SUBMITTALS:**

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Shop Drawings: Indicate materials, component profiles and elevations, assembly methods, joint details, fastening methods, accessory listings, hardware location and schedule of finishes
- C. Certificates:
  - 1. Fire hazard classification: Not later than 30 days prior to contract completion date, submit certifications for interior finish materials attesting to compliance with specified fire/smoke ratings.
- D. Samples for verification:
  - 1. Hardwood lumber.
  - 2. Veneer plywood.
  - 3. Plastic laminate.
  - 4. Hardware.
  - 5. Bonded metal surface.

**1.4 APPLICABLE PUBLICATIONS:**

- A. Publications listed below form a part of this specification to extent referenced. Publications are referenced in text by basic designation only.
  - AHA A135.4 - Basic Hardboard; American Hardboard Association; 2004.
  - ANSI A208.1 - American National Standard for Particleboard; 2009.
  - ANSI A208.2 - American National Standard for Medium Density Fiberboard (MDF) for Interior Applications; 2009.
  - ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2005.
  - AWI - Architectural Woodwork Quality Standards Illustrated; Architectural Woodwork Institute; 2003, Eight Edition, Version 1.0.
    - 1. Section 200, Panel Products.
    - 2. Section 400, Architectural Cabinets.
    - 3. Section 1500, Factory Finishing.
    - 4. Section 1700, Installation.
  - BHMA A156.9 - American National Standard for Cabinet Hardware; Builders Hardware Manufacturers Association; 2003 (ANDI/BHMA A156.9).
  - NEMA LD 3 - High-Pressure Decorative Laminates; National Electrical Manufacturers Association; 2000.

NIST PS-1 - Construction and Industrial Plywood; National Institute of Standards and technology (Department of Commerce); 1995.

#### 1.5 QUALITY ASSURANCE:

- A. Perform work in accordance with AWI Quality Standards, Premium grade.
- B. Fabricator Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.
  - 1. Shop shall be a certified participant in AWI's Quality Certification Program.
- C. Fire hazard classification data.
  - 1. Components located in exitways and corridors shall be fabricated of materials tested to meet Fire Hazard Classification.

<u>Test</u>	<u>Test Results (Up to 4 feet above floor)</u>	<u>Test Results (4 feet and above floor)</u>	<u>Standard</u>
Flame Spread	26 - 75	0 - 25	ASTM E84
Smoke Developed	0 - 450	0 - 450	ASTM E84

#### 1.6 MOCK-UP:

- A. Provide mock-up of full size base and upper cabinet, including hardware.
- B. Locate where directed.
- C. Mock-up may remain as part of the work.

#### 1.7 STORAGE AND HANDLING:

- A. Protect units from moisture damage according to AWI Quality Standards, Section 1700, Installation.

#### 1.8 ENVIRONMENTAL REQUIREMENTS:

- A. During and after installation of work of this section, maintain the same temperature and humidity conditions in building spaces as will occur after occupancy.

#### 1.9 COORDINATION:

- A. Coordinate work with applicable mechanical trades and rough-in.

### PART 2 - PRODUCTS

#### 2.1 WOOD MATERIALS:

- A. Hardwood Lumber: Graded in accordance with AWI Quality Standards for Grade of Work specified; average moisture content of 6 to 8 percent; with rift cut, of quality suitable for transparent finish. Species: Red Oak.

#### 2.2 PANEL MATERIALS:

- A. Medium Density Fiberboard (MDF): ANSI A208.2; type as specified in AWI/AWMAC/WI Architectural Woodwork Standards; composed of wood fibers pressure bonded with moisture resistant adhesive to suit application; sanded faces; thickness as indicated.
- B. Hardwood Plywood: Graded in accordance with AWI Quality Standards for Grade of Work specified; core materials of particleboard or medium-density fiberboard, type of glue recommended for application; of quality suitable for transparent finish. Particleboard: NIST PS-1 and ANSI A208.1; type as specified in AWI Quality Standards for Grade of

Work specified; composed of wood chips, not less than 42 pound density; of grade to suit application; sanded faces; use for all components not indicated as another material. Species: Red Oak

- C. Hardboard: AHA A135.4; Pressed wood fiber with resin binder, Class 1 - Tempered, 1/4 inch thick, smooth two sides (S2S); use for dust panels and components indicated on drawings.

### **2.3 LAMINATE MATERIALS:**

- A. Plastic Laminate:
  - 1. Vertical Grade (CWC-PL): Grade 28/LD3, 0.028 inch (0.7 mm) thick.
  - 2. Colors and finishes: Refer to Finish Designations in Drawings.
  - 3. Manufacturers:
    - a. Refer to Finish Designations in Drawings.
- B. Laminate Backing Sheet: 0.020 inch Backing Sheet grade, undecorated plastic laminate.

### **2.4 ACCESSORIES:**

- A. Adhesive: Type recommended by laminate manufacturer to suit application.
- B. Fasteners: Size and type to suit application, concealed from view.
- C. Concealed Joint Fasteners: Threaded steel.

### **2.5 HARDWARE:**

- A. Reference Standard: BHMA A156.9
- B. Appearance: Dull (satin) chrome, US26D, BHMA 626, 652, or 682.
- C. Hinges.
  - 1. European style: Completely concealed when door closed.
    - a. Screw-in installation, built-in horizontal and vertical adjustment.
    - b. Mortised in door only.
    - c. Working parts steel.
    - d. 95 degree opening.
    - e. Self-closing.
  - f. Acceptable products:
    - 1) Modul 100 Series by Julius Blum, Inc., Stanley, North Carolina 28164 [www.blum.com](http://www.blum.com).
    - 2) 3000 Series by Grass America, Inc., Kennersville, North Carolina 27284 [www.grassusa.com](http://www.grassusa.com).
    - 3) 329.01 Series by Hafele America Co., Archdale, North Carolina 27263 [www.hafele.com/us](http://www.hafele.com/us).
    - 4) No. HL3A7 by Selby Furniture Hardware Co., New York, New York 10451 [www.selbyhardware.com](http://www.selbyhardware.com).
    - 5) Or equal with similar salient characteristics.
- D. Pulls.
  - 1. Type A.
    - a. Wire type: 1 inch finger clearance, 4 to 4-5/32 inch center-to-center spacing, 5/16 to 3/8 inch diameter.

- b. Acceptable products:
      - 1) No. MC-402-4 BRC by The Engineered Products Company, Flint, Michigan 48501 [www.epcohardware.com](http://www.epcohardware.com).
      - 2) No. DP57B SSS by Doug Mockett & Company, Inc., Manhattan Beach, California 90266 [www.mockett.com](http://www.mockett.com).
      - 3) No. 348315 by Stanley Hardware, New Britain, Connecticut 06050 [www.stanleyhardware.com](http://www.stanleyhardware.com)
      - 4) Or equal with similar salient characteristics.
  - 2. Type B.
    - a. Bar pull.
    - b. Acceptable products:
      - 1) No. DP55A Satin Stainless Steel, 6-5/16 inches by Doug Mockett & Company, Inc., Manhattan Beach, California 90266 [www.mockett.com](http://www.mockett.com).
      - 2) 19011-SS Stainless Steel, 6 inches by Amerock, Rockford, Illinois 61125 [www.amerock.com](http://www.amerock.com).
      - 3) Or equal with similar salient characteristics.
- E. Locks.
  - 1. Cam bolt: Lock and unlock by key, key removable in both positions, threaded cylinder, slabbed on sides to prevent turning and mounted with hex nut.
    - a. 7-pin removable core (supplied by Construction Manager).
    - b. Mortised.
    - c. Vertical.
    - d. Acceptable products:
      - 1) 1E Series by Best Access Systems, Indianapolis, Indiana 46226 [www.bestaccess.com](http://www.bestaccess.com).
      - 2) LP2000 Series by Selby Furniture Hardware Co., New York, New York 10451 [www.selbyhardware.com](http://www.selbyhardware.com).
      - 3) Or equal with similar salient characteristics.
  - 2. Gang lock: Push in to lock without key, unlock by key, adjustable for varying drawer heights, with automatic locking drawer catch.
    - a. Acceptable products:
      - 1) L-317 N/L-913 by Selby Furniture Hardware Co., New York, New York 10451 [www.selbyhardware.com](http://www.selbyhardware.com).
      - 2) Or equal with similar salient characteristics.
  - 3. Key and master key in lock manufacturer's standard system utilizing not less than 7 pins or discs.
  - 4. Cylinder for lock, as specified in Section 08 71 00 - Door Hardware.
- F. Drawer slides.
  - 1. Heavy duty: Full extension, precision steel ball bearings, cold-rolled slide members.
    - a. 150 pound load rating, drawer removable without use of tools.
    - b. Acceptable products:
      - 1) No. 3320 by Hettich America, LP, Alpharetta, Georgia 30005 [www2.hettichamerica.com](http://www2.hettichamerica.com).
      - 2) No 8500 by Knappe & Vogt Manufacturing Co., Grand Rapids, Michigan 49505 [www.knappeandvogt.com](http://www.knappeandvogt.com).
      - 3) Or equal with similar salient characteristics.

- G. Counter brackets.
  - 1. Aluminum bar L-bracket.
  - 2. Size: Per manufacturer recommendations, based upon counter depth.
  - 3. Mill aluminum finish.
  - 4. Flush mounted, unless otherwise indicated.
  - 5. Acceptable products:
    - a. Rakks EH series, by Rangine Corporation, Needham, Massachusetts 02494 [www.rakks.com](http://www.rakks.com).
    - b. Or equal with similar salient characteristics.
- H. Standards for adjustable shelving.
  - 1. 1/16 inch thick steel channel.
    - a. Double rows of 1/2 inch high slots on 1 inch centers.
    - b. Acceptable products:
      - 1) Universal Series No. 220 by Crown Manufacturing Co., Elmhurst, Illinois 60126 [www.crownmetal.com](http://www.crownmetal.com).
      - 2) No. 85 by Knappe & Vogt Manufacturing Co., Grand Rapids, Michigan 49505 [www.knappeandvogt.com](http://www.knappeandvogt.com).
      - 3) Or equal with similar salient characteristics.

## **2.6 SHOP FIRE RETARDANT TREATMENT OF WOOD MATERIALS:**

- A. Provide UL approved identification of fire retardant treated material
- B. Deliver fire retardant treated materials cut to required sizes.  
Minimize field cutting.

## **2.7 FABRICATION:**

- A. Shop assemble casework for delivery to site in units easily handled and to permit passage through building openings.
- B. Fabricate and assemble custom casework in accordance with AWI Quality Standards, Section 400.
  - 1. Casework - Wood Custom, Wood Veneer (CWC-WD).
    - a. Fit shelves, doors, and exposed edges with matching veneer edging.
    - b. Apply wood veneer by grain matching adjacent sheets to book matching.
  - 2. Casework - Wood Custom, Plastic Laminate (CWC-PL).
    - a. Cap exposed plastic laminate finish edges with material of same finish and pattern.
    - b. Apply laminate backing sheet to reverse side of plastic laminate finished surfaces.
    - c. Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners. Slightly bevel arises. Locate counter butt joints minimum 2 feet from sink cut-outs.
  - 3. Shelves - Wood, Plastic Laminate (HPL).
    - a. Cover top, bottom, and all 4 edge surfaces with material of same finish and pattern.
- C. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.
- D. Door and Drawer Fronts: 3/4 inch (19 mm) thick; flush style.

## **2.8 FIELD FINISHING:**

- A. Sand work smooth and set exposed nails and screws.
- B. Apply wood filler in exposed nail and screw indentations.
- C. On items to receive transparent finishes, use wood filler which matches surrounding surfaces and of types recommended for applied finishes.
- D. Casework shall be field finished under the work of Section 09 91 00 - Painting.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION:**

- A. Verify adequacy of backing and support framing.
- B. Verify location of sizes of utility rough-in associated with work of this section.

### **3.2 INSTALLATION:**

- A. Install custom casework in accordance with AWI Quality Standards, Section 1700.
- B. Set and secure casework in place; rigid, plumb, and level.
- C. Use fixture attachments in concealed locations for wall mounted components.
- D. Use concealed joint fasteners to align and secure adjoining cabinet units.
- E. Carefully scribe casework abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim for this purpose.
- F. Secure cabinet to floor using appropriate angles and anchorage.
- G. Countersink anchorage devices at exposed locations. Conceal with solid wood plugs of species to match surrounding wood; finish flush with surrounding surfaces.

### **3.3 ADJUSTING:**

- A. Adjust installed work.
- B. Adjust moving or operating parts to function smoothly and correctly.

### **3.4 CLEANING:**

- A. Clean casework, hardware, fittings, and fixtures.
- B. Clean and polish fabrications surfaces in accordance with manufacturer's instructions.

### **3.5 PROTECTION OF FINISHED WORK:**

- A. Do not permit construction near unprotected surfaces.

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