

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Plastic-laminate finish casework.
 - 2. Solid-surfacing-material countertops.

1.2 DEFINITIONS

- A. Interior architectural casework includes wood furring, blocking, shims, and hanging strips for installing casework items unless concealed within other construction before casework installation.

1.3 SUBMITTALS

- A. Product Data: For solid surfacing and high-pressure decorative laminate, adhesive for bonding plastic laminate and finishing materials and processes, integral sinks.
- B. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, integral sinks and other components.
 - 1. Show details.
 - 2. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
 - 3. Show locations and sizes of cutouts and holes for equipment and other items installed in architectural casework.
- C. Samples for Verification:
 - 1. Plastic laminates, 8 by 10 inches (200 by 250 mm), for each type, color, pattern, and surface finish.
 - 2. Solid-surfacing materials, 6 inches (150 mm) square.
- D. Casework Quality Standard Compliance Certificates: AWI Quality Certification Program certificates.
- E. Qualification Data: For Installer and fabricator.

1.4 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate products similar to those required for this Project.
- B. Installer Qualifications: Fabricator of products.
- C. Testing Agency Qualifications: For testing agency providing classification marking for fire-retardant-treated material, an inspection agency acceptable to authorities having jurisdiction that periodically performs inspections to verify that the material bearing the classification marking is representative of the material tested.

- D. Quality Standard: Unless otherwise indicated, comply with AWI's "Architectural Woodwork Quality Standards" for grades of interior architectural casework indicated for construction, finishes, installation, and other requirements.
 - 1. Provide AWI Quality Certification Program labels and certificates indicating that casework, including installation, complies with requirements of grades specified.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver casework until painting and similar operations that could damage casework have been completed in installation areas. If casework must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in Section 01 50 00 - "Temporary Facilities and Controls".

1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install casework until wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.
- B. Field Measurements: Where casework is indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
 - 1. Locate concealed framing, blocking, and reinforcements that support casework by field measurements before being enclosed, and indicate measurements on Shop Drawings.
 - 2. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating casework without field measurements. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

1.7 COORDINATION

- A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that interior architectural casework can be supported and installed as indicated.

1.8 WARRANTY

- A. Provide manufacturer's warranty against defects in materials.
- B. Warranty shall provide material and labor to replace or repair defective materials and installations at the discretion of Architect.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. General: Provide materials that comply with requirements of AWI's quality standard for each type of casework and quality grade specified, unless otherwise indicated.
- B. Wood Products: Comply with the following:

1. Softwood Plywood: DOC PS 1, Medium Density Overlay. Fire Retardant.
- C. Fire-Retardant-Treated Materials, General: Where fire-retardant-treated materials are indicated, use materials complying with requirements in this article that are acceptable to authorities having jurisdiction and with fire-test-response characteristics specified as determined by testing identical products per test method indicated by a qualified testing agency.
1. Use treated materials that comply with requirements of referenced caseworking standard. Do not use materials that are warped, discolored, or otherwise defective.
 2. Use fire-retardant-treatment formulations that do not bleed through or otherwise adversely affect finishes. Do not use colorants to distinguish treated materials from untreated materials.
 3. Identify fire-retardant-treated materials with appropriate classification marking of qualified testing agency in the form of removable paper label or imprint on surfaces that will be concealed from view after installation.
 4. Fire-Retardant-Treated Lumber and Plywood: Products with a flame-spread index of 25 or less when tested according to ASTM E 84, with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet (3.2 m) beyond the centerline of the burners at any time during the test.
 - a. Kiln dry lumber and plywood after treatment to a maximum moisture content of 19 and 15 percent, respectively.
 - b. For items indicated to receive a stained or natural finish, use organic resin chemical formulation.
 - c. Mill lumber after treatment within limits set for wood removal that do not affect listed fire-test-response characteristics, using a caseworking shop certified by testing and inspecting agency.
 - d. Mill lumber before treatment and implement special procedures during treatment and drying processes that prevent lumber from warping and developing discolorations from drying sticks or other causes, marring, and other defects affecting appearance of treated casework.
- D. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or, if not indicated, as required by casework quality standard.
1. Manufacturers: Subject to compliance with requirements, provide high-pressure decorative laminates by one of the following:
 - a. Wilsonart, Inc.
 - b. Nevamar
 - c. Formica
 - d. Or Approved Equal
 2. Colors and Patterns: As indicated in Drawings.
- E. Solid-Surfacing Material: Homogeneous solid sheets or acrylic or polyester resin over continuous substrate complying with ISSFA-2 and NEMA LD3. Non-porous, no surface coating, laminated or of composite construction with through body colors capable of being worked and repaired using standard woodworking tools, meeting ANSI Z124.3 or ANSI Z124.6.

1. Basis of Design Product: EOS Surfaces LLC, Cupron Enhanced Solid Surface Material (800-719-3671) or approved equal by one the following:
 - a. Corian by DuPont
 - b. Dovae
 - c. Wilsonart Solid Surface
 - d. Avonite
2. Colors and Patterns: As indicated in Drawings.

2.2 CABINET HARDWARE AND ACCESSORIES

- A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets.
- B. Frameless Concealed Hinges (European Type): BHMA A156.9, B01602, 135 degrees of opening, self-closing.
- C. Wire Pulls: Basis of Design: Hafele 117.67.025 or approved equal brushed chrome pull, back mounted 5 inches (128 mm) center to center, 6 inches (153 mm) overall length; aluminum, silver matt anodized finish.
- D. Adjustable Shelf Standards and Supports: BHMA A156.9, B04071; with shelf rests, B04081.
- E. Shelf Rests: BHMA A156.9, B04013; metal.
- F. Door Locks: BHMA A156.11, E07121.
- G. Drawer Locks: BHMA A156.11, E07041
- H. Counter Supports: Support brackets fabricated by welding miter cut extruded aluminum sections, grinding and deburring sharp edges and welds, drilling holes for field attachment, and factory finishing. Fabricate components from extruded aluminum sections complying with ASTM B221, 6063-T6 alloy and temper.
 1. Basis of Design Product: "Rakks EH Series Counter Support Brackets" by Rangine Corporation, or by one of the following:
 - a. A&M Hardware, Inc.
 - b. HDL
 - c. Doug Mockett
 - d. or Approved Equal.
 2. Subject to compliance with requirements, provide 6063-T6 extruded aluminum
 - a. Model: Concealed mount as noted in Drawings.
 - b. Size: As required to support countertop or as noted in Drawings.
 - c. Material: 6063-T6 Extruded Aluminum.
- I. Cable Trays/Wire Management: Recycled plastic, curvable cable tray, black finish.
 1. Basis of Design Product: Doug Mockett model WM9 or by one of the following:
 - a. Legrand

- b. Penn Elcom
- c. Balt
- d. or Approved Equal.

J. Pencil Lip: Stainless Steel Plate: 2 inch x 1/8 inch; 2D finish.

2.3 MISCELLANEOUS MATERIALS

- A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln dried to less than 15 percent moisture content.
- B. Adhesives, General: Do not use adhesives that contain urea formaldehyde.
- C. VOC Limits for Installation Adhesives and Glues: Use installation adhesives that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
 - 1. Wood Glues: 30 g/L.
 - 2. Contact Adhesive: 250 g/L.
- D. Adhesive for Bonding Plastic Laminate: unpigmented contact cement.
 - 1. Adhesive for Bonding Edges: Hot-melt adhesive.
- E. Adhesive for Bonding Solid Surface Materials: Manufacturer's standard one or two part adhesive kit to create inconspicuous, nonporous joints.

2.4 FABRICATION, GENERAL

- A. Interior Casework Grade: Unless otherwise indicated, provide Custom-grade interior casework complying with referenced quality standard.
- B. Wood Moisture Content: Comply with requirements of referenced quality standard for wood moisture content in relation to ambient relative humidity during fabrication and in installation areas.
- C. Sand fire-retardant-treated wood lightly to remove raised grain on exposed surfaces before fabrication.
- D. Fabricate casework to dimensions, profiles, and details indicated.
- E. Complete fabrication, including assembly, finishing, and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
 - 1. Trial fit assemblies at fabrication shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements indicated on Shop Drawings before disassembling for shipment.
- F. Shop-cut openings to maximum extent possible to receive hardware, appliances, plumbing fixtures, electrical work, and similar items. Locate openings accurately and use templates or

roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.

1. Seal edges of openings in countertops with a coat of varnish.

2.5 PLASTIC-LAMINATE CABINETS

- A. Grade: Custom.
- B. AWI Type of Cabinet Construction: Flush overlay.
- C. WI Construction Type: Type I, multiple self-supporting units rigidly joined together.
- D. WI Door and Drawer Front Style: Flush overlay.
- E. Reveal Dimension: 1/2 inch (13 mm).
- F. Laminate Cladding for Exposed Surfaces: High-pressure decorative laminate complying with the following requirements:
 1. Horizontal Surfaces Other Than Tops: Grade HGS.
 2. Postformed Surfaces: Grade HGP.
 3. Vertical Surfaces: Grade HGS.
 4. Edges: PVC T-Mold, matching laminate in color, pattern, and finish.
- G. Materials for Semiexposed Surfaces:
 1. Edges of Plastic-Laminate Shelves and Doors: PVC T-mold matching laminate in color, pattern, and finish.
 - a. For semiexposed backs of panels with exposed plastic-laminate surfaces, provide surface of high-pressure decorative laminate, NEMA LD 3, Grade BKL.
- H. Concealed Backs of Panels with Exposed Plastic-Laminate Surfaces: High-pressure decorative laminate, NEMA LD 3, Grade BKL.
- I. Colors, Patterns, and Finishes: Provide materials and products that result in colors and textures of exposed laminate surfaces complying with the following requirements:
 1. As selected by Owner from laminate manufacturer's full range in the following categories:
 - a. Solid colors, matte finish.
 - b. Patterns, matte finish.

2.6 SOLID-SURFACING-MATERIAL COUNTERTOPS

- A. Grade: Custom.
- B. Solid-Surfacing-Material Thickness: 1/2 inch (19 mm).
- C. Colors, Patterns, and Finishes: Provide materials and products that result in colors of solid-surfacing material complying with the following requirements:

1. As selected by Owner from manufacturer's full range.
- D. Fabricate tops in one piece, unless otherwise indicated. Top surface joints, where required, shall be flush. Comply with solid-surfacing-material manufacturer's written recommendations for adhesives, sealers, fabrication, and finishing.
1. Fabricate tops with shop-applied edges of materials and configuration indicated.
 2. Fabricate and provide back and side splashes wherever counter edge abuts a vertical surface, unless noted otherwise.

PART 3 – EXECUTION

3.1 PREPARATION

- A. Before installation, condition casework to average prevailing humidity conditions in installation areas.
- B. Before installing architectural casework, examine shop-fabricated work for completion and complete work as required, including removal of packing.

3.2 INSTALLATION

- A. Grade: Install casework to comply with requirements for the same grade specified in Part 2 for fabrication of type of casework involved.
- B. Assemble casework and complete fabrication at Project site to comply with requirements for fabrication in Part 2, to extent that it was not completed in the shop.
- C. Install casework level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb (including tops) to a tolerance of 1/8 inch in 96 inches (3 mm in 2400 mm).
 1. Install blocking in wall at cabinet locations as shown in Drawings
- D. Scribe and cut casework to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
- E. Anchor casework to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing as required for complete installation. Use fine finishing nails for exposed fastening, countersunk and filled flush with casework and matching final finish if transparent finish is indicated.
- F. Cabinets: Install without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
- G. Countertops: Anchor securely by screwing through corner blocks of base cabinets or other supports into underside of countertop.
 1. Align adjacent solid-surfacing-material countertops and form seams to comply with manufacturer's written recommendations using adhesive in color to match countertop. Carefully dress joints smooth, remove surface scratches, and clean entire surface.

2. Install countertops with no more than 1/8 inch in 96-inch (3 mm in 2400-mm) sag, bow, or other variation from a straight line.
 3. Secure backsplashes to tops with concealed metal brackets at 16 inches (400 mm) o.c. and to walls with adhesive.
 4. Caulk space between backsplash and wall with sealant specified in Division 07 Section "Joint Sealants."
- H. Touch up finishing work specified in this Section after installation of work. Fill nail holes with matching filler where exposed.

3.3 ADJUSTING AND CLEANING

- A. Repair damaged and defective work, where possible, to eliminate functional and visual defects; where not possible to repair, replace. Adjust joinery for uniform appearance.
- B. Clean, lubricate, and adjust hardware.
- C. Clean exposed and semiexposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.

END OF SECTION