

SECTION 06 4100

ARCHITECTURAL WOOD CASEWORK

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Specially fabricated cabinet units.
- B. Countertops.
- C. Hardware.
- D. Solid Surface Window Stools and Skirts

1.2 RELATED REQUIREMENTS

- A. Section 09 3000 - Tiling: Slate window stools at openings on first floor.

1.3 REFERENCE STANDARDS

- A. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014.
- B. NEMA LD 3 - High-Pressure Decorative Laminates; 2005.

1.4 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Submit CAD production drawings for casework, showing plan views, elevations and sections in relation to adjacent construction. Indicate materials, component profiles, fastening methods, jointing details, and accessories.
 - 1. Provide the information required by AWI.
- C. Product Data: Provide data for hardware accessories.
- D. Samples: Submit samples of manufacturer's full line of edge banding and decorative laminate colors, patterns and texture. Samples of other materials or hardware shall be made available if requested. Architect may request representative full size samples for evaluation prior to approval. Submit solid surface color chips representing manufacturer's full range of available colors and patterns.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum five years of documented experience.
 - 1. Work in this section shall be performed by a manufacturer certified by the Architectural Woodwork Institute (AWI) Quality Certification Program.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Protect units from moisture damage. Prior to delivering casework, maintain environmental conditions (temperature, humidity, and ventilation) within limits specified for occupied building.

1.7 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. All materials and workmanship for this section shall carry a three (3) year warranty from date of substantial completion. This warranty is a warranty of replacement and repair only, whereby the manufacturer will correct defects in material and/or workmanship without charge.

It does not warrant any products that have been abused, exposed to excessive loads or left in unconditioned air after occupancy.

1.8 FIELD CONDITIONS

- A. During and after installation of custom cabinets, maintain temperature and humidity conditions in building spaces at same levels planned for occupancy.

PART 2 PRODUCTS

2.1 CABINETS

- A. Quality Grade: Unless otherwise indicated provide products of quality specified by AWI//AWMAC/WI (AWS) for Custom Grade.
- B. Plastic Laminate Faced Cabinets: Custom grade.
- C. Cabinets:
 - 1. Finish - Exposed Exterior Surfaces: Decorative laminate.
 - 2. Finish - Exposed Interior Surfaces: Decorative laminate.
 - 3. Finish - Concealed Surfaces: Melamine.
 - 4. Door and Drawer Front Edge Profiles: Square edge with thick applied band.
 - 5. Casework Construction Type: Type A - Frameless.
 - 6. Interface Style for Cabinet and Door: Style 1 - Overlay; reveal overlay.
 - 7. Adjustable Shelf Loading: 50 lbs. per sq. ft.
 - 8. Cabinet Style: Flush overlay.
 - 9. Cabinet Doors and Drawer Fronts: Flush style.
 - 10. Drawer Side Construction: Multiple-dovetailed.

2.2 WOOD-BASED COMPONENTS

- A. Provide particle board and adhesives containing no added urea formaldehyde.

2.3 LAMINATE MATERIALS

- A. Manufacturers:
 - 1. Arborite; Standard and Premium Laminate: www.arborite.com.
 - 2. Formica Corporation; Formica Laminate: www.formica.com.
 - 3. Panolam Industries International, Inc\Nevamar; Nevamar HPL: www.nevamar.com.
 - 4. Wilsonart, LLC; Wilsonart High Pressure Laminate: www.wilsonart.com.
 - 5. Substitutions: See Section 01 6000 - Product Requirements.
- B. High Pressure Decorative Laminate (HPDL): NEMA LD 3, types as recommended for specific applications.
- C. Provide specific types as follows:
 - 1. Horizontal Surfaces: HGS, 0.048 inch (1.22 mm) nominal thickness, color as selected, finish as indicated.
 - 2. Vertical Surfaces: VGS, 0.028 inch (0.71 mm) nominal thickness, color as selected, finish as selected.
 - 3. Cabinet Liner: CLS, 0.020 inch (0.51 mm) nominal thickness, color as selected, finish as selected.

4. Laminate Backer: BKL, 0.020 inch (0.51 mm) nominal thickness, undecorated; for application to concealed backside of panels faced with high pressure decorative laminate.

2.4 SOLID SURFACE MATERIALS

A. Manufacturers:

1. Avonite Surfaces; Avonite Acrylic Solid Surface: www.avonitesurfaces.com.
2. Dupont; Corian Solid Surfaces: www.corian.com.
3. Formica Corporation; Formica Solid Surfacing: www.formica.com.
4. Wilsonart, LLC; Wilsonart Solid Surface: www.wilsonart.com.
5. Substitutions: See Section 01 6000 - Product Requirements.

B. Surface Burning Characteristics: Flame spread index of 25, maximum; smoke development index of 450, maximum; when tested in accordance with ASTM E84.

C. Finish on Exposed Surfaces: Matte, gloss rating of 5 to 20.

D. Color/Pattern: As selected by Architect from manufacturer's full range of colors and patterns.

2.5 COUNTERTOPS

A. Plastic Laminate Countertops: HPDL on plywood substrate, conventionally fabricated with PVC edge band; Plywood substrate shall be PS 1 exterior grade, A-C veneer grade, minimum 5-ply, minimum 3/4 inch thick. Join lengths using metal splines.

B. Back and End Splashes: Same substrate materials, HPDL on exposed surfaces, minimum 4 inches high.

2.6 SOLID SURFACE WINDOW STOOLS AND SKIRTS

A. See drawings for locations and detailing.

B. Thickness and Exposed Edge Treatment: Laminate materials as required to provide thickness and profile indicated on drawings.

2.7 ACCESSORIES

A. Adhesive: Type recommended by AWI/AWMAC to suit application.

B. Plastic Edge Banding: Extruded PVC, flat shaped; smooth finish; self locking serrated tongue; of width to match component thickness.

1. Color: As selected by Architect from manufacturer's full range of colors, textures & patterns. If Architect does not find an edge banding that is an acceptable match for the selected HPL, provide HPL edge banding at no additional cost to the Owner.
2. Use at all exposed plywood edges.
3. Use at all exposed shelf edges.
4. Use at all countertop edges.

C. Grommets: Standard plastic grommets for cut-outs, in color to blend with adjacent surface.

D. Joint Sealant: Mildew-resistant silicone sealant, clear.

2.8 HARDWARE

A. Adjustable Shelf Supports: Standard side-mounted system using multiple holes for pin supports and coordinated self rests, satin chrome finish, for nominal 1 inch (25 mm) spacing adjustments.

- B. Drawer and Door Pulls: "U" shaped wire pull, steel with satin finish, 4 inch centers ("U" shaped wire pull, steel with satin finish, 100 mm centers).
- C. Cabinet Locks: Keyed cylinder, two keys per lock, steel with satin finish.
- D. Drawer Slides:
 - 1. Type: Full extension with overtravel.
 - 2. Static Load Capacity: Heavy Duty grade.
 - 3. Mounting: Side mounted.
 - 4. Features: Provide self closing/stay closed type.
 - 5. Manufacturers:
 - a. Accuride International, Inc; : www accuride.com/#sle.
 - b. Grass America Inc: www.grassusa.com/#sle.
 - c. Hettich America, LP; : www.hettich.com/#sle.
 - d. Substitutions: See Section 01 6000 - Product Requirements.
- E. Hinges: Butt self-closing type, BHMA No. Grade 1, steel with satin finish.
 - 1. Manufacturers:
 - a. Grass America Inc; Tiomos Hinge System: www.grassusa.com/#sle.
 - b. Hettich America, LP; _____: www.hettich.com/#sle.
 - c. Blum, Inc; _____: www.blum.com/#sle.
 - d. Substitutions: See Section 01 6000 - Product Requirements.

2.9 FABRICATION

- A. Assembly: Shop assemble cabinets for delivery to site in units easily handled and to permit passage through building openings.
- B. Edging: Fit shelves, doors, and exposed edges with specified edging. Do not use more than one piece for any single length.
- C. Fitting: When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide matching trim for scribing and site cutting.
- D. Plastic Laminate: Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners. Slightly bevel arises.
- E. Fabricate countertops and splashes in the largest sections practicable, with top surface of joints flush.
- F. Fabricate to overhang fronts and ends of cabinets 1 inch except where top butts against cabinet or wall.
- G. Provide cutouts in countertops for fixtures and fittings. Prepare all cutouts accurately to size; replace tops having improperly dimensioned or unnecessary cutouts or fixture holes.
- H. Provide cutouts in casework for fixtures and fittings. Verify locations of cutouts from on-site dimensions. Prime paint cut edges.
- I. Solid Surface: Field measure and fabricate window stools and skirts to precisely match openings. Finish edges and corners as indicate on drawings.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Set and secure custom cabinets in place, assuring that they are rigid, plumb, and level.
- B. Use concealed joint fasteners to align and secure adjoining cabinet units.
- C. Securely attach countertops to cabinets using concealed fasteners. Make flat surfaces level; use shims where required.
- D. Seal joint between counter tops and back/end splashes, and joint between back/end splashes and vertical surfaces.
- E. Set plumbing fixtures in continuous bead of clear silicone sealant, and remove excess sealant once fixture is set.
- F. Set window stools and skirts squarely in openings, providing overhangs as indicated on drawings. Securely adhere the stool and skirt in place, and seal joint between sill and skirt with clear silicone sealant.

3.2 ADJUSTING

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

3.3 CLEANING

- A. Clean casework, counters, shelves, hardware, fittings, and fixtures.

END OF SECTION